Year 2024 Report on Activities to Implement Washington State's Water Quality Plan to Control Nonpoint Source of Pollution

For the

Water Quality Program

Washington State Department of Ecology
Olympia, Washington

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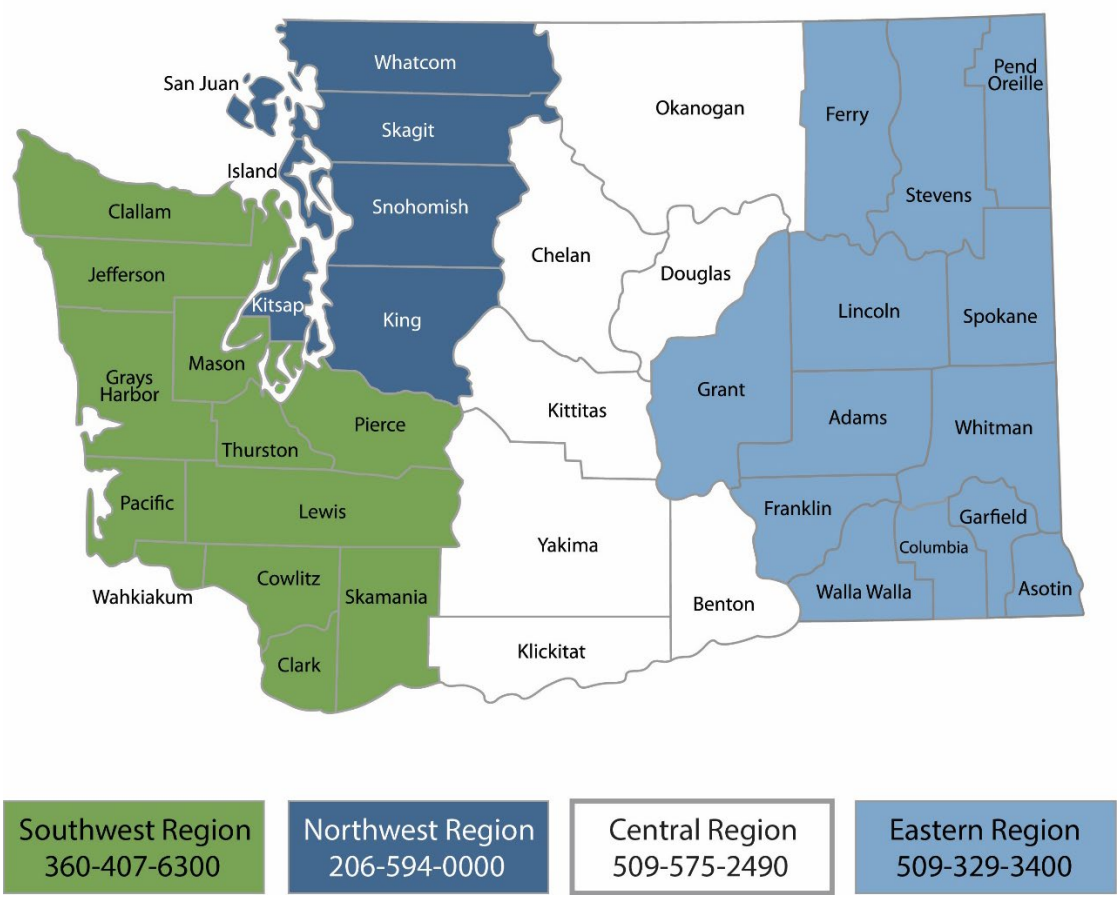
Department of Ecology's Regional Offices

Map of Counties Served



Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	P.O. Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	P.O. Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W. Alder St. Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N. Monroe St. Spokane, WA 99205	509-329-3400
Headquarters	Statewide	P.O. Box 46700 Olympia, WA 98504	360-407-6000

Year 2024 Report on Activities to Implement Washington State's Water Quality Plan to Control Nonpoint Source Pollution

Water Quality Program
Washington State Department of Ecology
Headquarters Office

Lacey, WA

May 2025 | Publication 25-10-064

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Purpose

This **Year 2024 Report on Activities to Implement Washington State's Water Quality Plan to Control Nonpoint Source Pollution** is intended to meet the requirements of section 319 (h) (8) and (11) of the Federal Clean Water Act (CWA) (33 USC 1329).

The report documents the activities and accomplishments of the State of Washington in achieving clean water, and the Department of Ecology's (Ecology) administration of the State's Nonpoint Source (NPS) Pollution Program.

As described herein, Washington is making significant progress toward meeting the substantial on-the-ground and policy challenges presented by nonpoint water pollution.

Chapter 1: The Path Toward Clean Water

Nonpoint source pollution in our waterways is the greatest water quality challenge facing Washington State today. Ecology's NPS strategy focuses on multiple implementation paths to achieve clean water. However, no matter the approach, we continually strive for greater regulatory clarity and a comprehensive strategy that uses all available tools to control and prevent nonpoint sources of pollution and achieve compliance with water quality standards.

In 2024 we made significant progress towards our goal of preventing nonpoint pollution and improving water quality across Washington. Some of our bigger successes include:

- Continued work on the remaining chapters of the Voluntary Clean Water Guidance for Agriculture[2]— the remaining eight chapters are due to EPA by December 31, 2025.
- Updated funding guidelines for Ecology's Water Quality Combined Funding Program, ensuring that the funding guidance reflects the BMPs included in the approved chapters of the Voluntary Clean Water Guidance for Agriculture, and continued to offer incentives for implementing full Site Potential Tree Height (SPTH) buffers.
- Supported the Forest Practices Board in developing rulemaking materials for the Board's proposed Type Np waters buffer rule, Water Typing System rule, and associated Board Manual guidance.
- Hangman Riparian Buffer Pilot program: This successful incentive program continues to provide yearly ecosystem payments to dryland wheat farmers who install riparian buffers with native woody vegetation in the Hangman Creek Watershed. The payments are structured to match the amount of income they would receive by farming those areas (commodity buffers).
- Began updates to the Nonpoint Plan, including coordination with other agencies and organizations involved in nonpoint work. We held or participated in 13 external meetings with Tribes, Tribal entities, and state agencies to inform and coordinate on Nonpoint Plan updates.
- Held a Nonpoint Workshop to gather all nonpoint staff from across the state to provide an opportunity to meet face-to-face, develop relationships, learn the history and trajectory of the nonpoint program, provide feedback to draft updates of the Nonpoint Plan, learn about key tools for nonpoint staff, and participate in a field tour of water quality success in the Hangman Creek Watershed of Eastern Washington.
- Held training for new nonpoint staff to establish a shared understanding of the core work, tools, and processes.
- Updated the nonpoint webpage[3] to make it easier for the public to find information about nonpoint pollution, our program, and available resources, including the 319 Annual Reports to EPA. The updated pages went live in early 2025.

[2] https://apps.ecology.wa.gov/publications/SummaryPages/2010008.html
[3] https://ecology.wa.gov/water-shorelines/water-quality/nonpoint-pollution

Ecology's efforts to manage nonpoint source pollution are inspired by a foundation of strategic policies intended to foster and guide water quality protection efforts. Accordingly, this report highlights some of the policy level advances in our continued effort to map out the nonpoint source regulatory landscape and, subsequently, navigate toward a more effective statewide nonpoint source program.

Ecology's nonpoint strategy focuses on promoting the implementation of effective best management practices (BMPs) that support compliance with the water quality standards and prevent pollution discharge. The primary tools Ecology uses to facilitate and guide on-the-ground implementation are:

- Total Maximum Daily Loads (TMDLs) and associated implementation plans
- Advance Restoration Plans (i.e., a Watershed-based implementation effort in advance of a TMDL)
- Straight to Implementation (STI) projects, a type of Advance Restoration Plan
- Ecology's Grant and Loan Program and associated funding guidelines
- Regional nonpoint staff provide on-the-ground technical assistance and, when appropriate, provide a regulatory backstop.

Additionally, when the right social, financial, and technical resource conditions arise in a Watershed, Ecology takes advantage of other opportunities to achieve on-the-ground implementation.

The Hood Canal Regional Pollution Identification and Correction Program, Clean Samish Initiative, and the Whatcom County Clean Water Program are all examples where Ecology is building on the momentum of concern over shellfish bed closures to promote clean water BMPs. Ecology continues to support these and other local Pollution Identification and Correction (PIC) programs.

This work targets Watersheds in the Puget Sound area, where a local entity has taken a key role in identifying pollution concerns and addressing pathogen and nutrient pollution from a variety of nonpoint sources. These sources include on-site sewage systems, farm animals, pets, sewage from boats, and stormwater runoff.

This report also details the significant federal and state water quality protection investments made through our combined funding program. The grants and loans administered by this program are essential for advancing efforts to control nonpoint source pollution.

By facilitating the widespread implementation of effective BMPs, such as improved agricultural practices and riparian area restoration, this program is helping to create a paradigm shift in which nonpoint source pollution control is viewed as important and customary by all contributing sectors.

Chapter 2: EPA's 2024 319 Grant Distribution

The federal fiscal year (FFY) 2024 Section 319 allocation was $3,117,827.

These funds were applied toward state fiscal year (SFY) 2025 and, as they were in SFY2024, were again distributed among three major work plan elements within Ecology:

- Ecology's Nonpoint Program
- Direct Implementation Fund
- Water Quality Combined Funding Program

2.1 Ecology's Water Quality Nonpoint Program Support

Ecology funded 9.1 staff full-time employees (FTEs) in SFY2024 who support the state's nonpoint program with policy development, technical assistance, and project implementation oversight.

The reduced second award only allowed Ecology to fund 9.1 staff FTE distributed as indicated above; this is a 0.65 FTE reduction.

Total EPA State Fiscal Year 2024 Allocation: $3,117,827

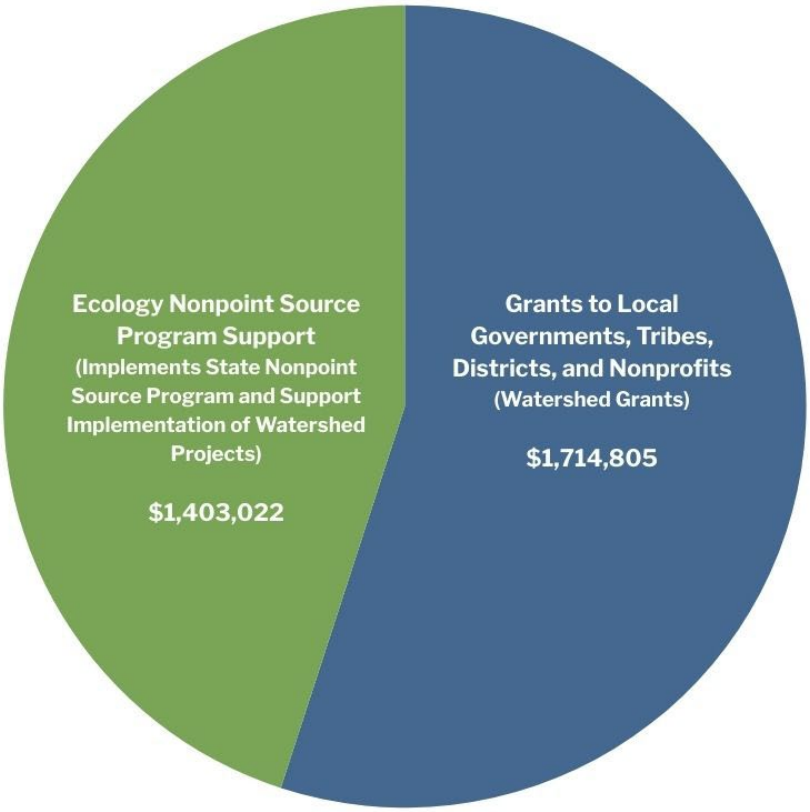

Figure 1. 319 Federal Allocations State Fiscal Year 2025 (Federal Fiscal Year 2024)

Figure 1 shows the distribution of the federal allocation in SFY2025 (FFY24). Ecology applied 40% state matching funds of $4,310,666 using State Clean Water Fund dollars. **See section 2.3.1 for details.**

2.1.1 SFY2023 Nonpoint 319 Program Projects – 9.1 FTEs at $1,403,022

Table 1. Staff supported with 319 funding

319 Funded WQ Support Projects	FTEs	319 Cost
Nonpoint Policy and Plan Coordination	1.60	$271,878
Financial and Data Administration	1.0	$162,493
TMDL Nonpoint Education and Outreach	0.5	$85,713
TMDL Development and Implementation	1.10	$157,262
Nonpoint Technical Assistance and Compliance	2.10	$311,784
TMDL and BMP Effectiveness Monitoring	2.80	$413,892
Total	9.1	$1,403,022

1. **Nonpoint Policy and Plan Coordination (1.60 FTE)**

   Ecology is responsible for overseeing and coordinating overall Nonpoint Plan implementation activities and policy. Part of that role entails management, monitoring overall status, compiling progress reports, and reporting back to EPA, taking the lead in coordinating with other Ecology programs, facilitating inter-state agency work, implementing activities that have statewide applicability, and performing technical outreach about the plan with local governments, Tribes, forest practices, and special purpose districts. In addition, Ecology is responsible for statewide nonpoint policy and planning.

   Estimated cost of this work plan component – **$271,878**

2. **Financial Administration (1.0 FTE)**

   Staff of the Water Quality Program's Financial Management Section administer and manage all Section 319 grant funds and match funds passed through to local government entities, Tribes, and public not-for-profit groups. Staff ensure that funds are ranked and allocated to highest priority projects and are spent in a fiscally responsible manner. Staff also closely track projects tasks, results, and data from initiation to completion.

   Estimated cost of this work plan component – **$162,393**

3. **TMDL Nonpoint Education and Outreach (0.50 FTE)**

Ecology initiates an education and outreach effort as part of every TMDL. The purpose is to ensure that people understand why we are doing a TMDL, what their responsibilities are likely to be, and how they can participate. A successful public process makes TMDL implementation more likely and more effective.

Estimated cost of this work plan component – **$85,713**

4. **TMDL Development and Implementation (1.10 FTEs)**
   The primary job of a TMDL lead is managing the development of the TMDL and supporting documents for successful submission to and approval by EPA. This element includes knowledge of TMDL concepts and procedures, and the ability to work effectively with diverse groups within and outside Ecology. Other products required from this work element include the development of an implementation strategy to go along with the TMDL, a summary of public involvement, and a water quality (detailed) implementation plan (WQIP). Once these procedures are documented, the TMDL lead coordinates and initiates implementation activities to meet the allocations set in the TMDL. In some cases, the TMDL lead also manages local implementation grants.

   Estimated cost of this work plan component – **$157,262.**

5. **Nonpoint Technical Assistance and Compliance (2.10 FTEs)**
   The purpose of this work plan element is to provide technical assistance to landowners, as well as federal, state, and local agencies, Tribes, forests, and special purpose districts to ensure their activities, projects, and programs meet state water quality laws, regulations, and standards. Areas of technical assistance include forest practices, agricultural activities, riparian restoration, complaint management, inspections, and nonpoint source enforcement. This work plan element will apply in Watersheds that implement nonpoint TMDLs or in Watersheds with plans that focus on protection of threatened waters or implementation activities to clean up waters.

   Estimated cost of this work plan component – **$311,784.**

6. **TMDL and Effectiveness Monitoring (2.80 FTEs)**
   This part of the plan designs and conducts monitoring studies to determine the effectiveness of nonpoint source management programs. Effectiveness monitoring and ground water monitoring capture the success or failure of various voluntary and regulatory efforts. In addition, we will measure the effectiveness of specific implementation activities. Post TMDL monitoring is also conducted to verify that the pollutant controls result in the water body improving or meeting water quality standards. It tests the effectiveness of the implementation management programs/plans.

   Estimated cost of this work plan component – **$413,892**

2.2 Direct Implementation Fund

The Direct Implementation Fund (DIF) is designed to assist Ecology's regional offices to directly address priority nonpoint problems. The DIF program uses unspent/de-obligated dollars from competitive projects, or other sources, to implement on-the-ground practices that will provide a direct and demonstrable water quality benefit by addressing an acute pollution problem at a specific site. Examples include planting riparian buffers, installing livestock exclusion fencing, and use of waste storage facilities to remove livestock (and associated pollution) from surface waters.

Projects may be proposed for DIF by an Ecology regional office at any time. The project goes through a review process and, if approved, will be placed in a queue for when funds are available. If funds become available without projects in the queue, the Nonpoint Funding coordinator may notify all regional offices to solicit proposals.

To qualify, the project must address:

- Identified sources of nonpoint pollution causing the most significant harm to water quality.
- Water bodies that are identified as not meeting water quality standards and/or have a strategic implementation plan (such as a completed TMDL, STI, or another alternative Watershed plan).
- An actual ability to fix the problem (i.e., can implement the desired change and are ready to proceed and reach completion).
- Criteria established in the DIF funding guidelines (updated SFY2025).

Ecology works closely with local partner organizations to facilitate implementation, leveraging both DIF and competitive grant programs. In 2024, eight Centennial funded DIF projects were awarded; additional information on these projects can be found in Appendix A. No Section 319 DIF projects were funded in 2024.

2.3 Ecology's Integrated Grant and Loan Program

Ecology's Water Quality Combined Funding Program (WQC) administers four major funding sources that provide grants and low-interest loans for projects to protect and improve water quality in Washington state.

Ecology acts in partnership with local governments, special purpose districts, federally recognized Tribes, and nonprofits (Section 319 only) by providing financial and administrative support for their water quality efforts.

Eligible project types include wastewater, stormwater, nonpoint, and on-site sewage systems (OSS). Ecology manages the four fund sources as one with common guidelines, one funding cycle, application form, and offer list.

The WQC offers funding packages to the highest ranked projects through an annual application process. Funding becomes available and agreement negotiations begin on July 1 every year. The full offer list is available as an interactive map, spreadsheet, and document on the WQC Funding Cycles webpage.[4]

Funding packages may include dollars from:

- **Centennial Clean Water Fund** (Centennial) grants for all project types
- **Clean Water Act Section 319** (319) grants for nonpoint
- **Clean Water State Revolving Fund** (SRF) loans for wastewater, nonpoint, and OSS.
    - Low interest loans and the Green Project Reserves (GPR), with the possibility of forgivable principal, which normally boosts the number of SRF applications for nonpoint source projects.
- **Stormwater Financial Assistance Program** (SFAP) grants are designed to fund stormwater projects and activities that have been proven effective at reducing environmental degradation from stormwater and go above and beyond permit requirements. Stormwater facilities and a limited suite of stormwater activities may be funded through SFAP. SFAP-eligible facility projects must reduce stormwater pollution from existing development and will be reviewed by Ecology to ensure compliance with Ecology's design standards.

2.3.1 Nonpoint Grant and Loan Investments (SFY2025)

Nonpoint projects are evaluated and ranked based on feasibility criteria and water quality benefit, in support of the Washington State Nonpoint Plan and Watershed plans.

Nonpoint projects may receive a combination of grants and/or loans from 319, Centennial, and/or CWSRF as one funding package.

[4] https://ecology.wa.gov/About-us/Payments-contracts-grants/Grants-loans/Find-a-grant-or-loan/Water-QualityCombined-Funding-Program/WQC-funding-cycle

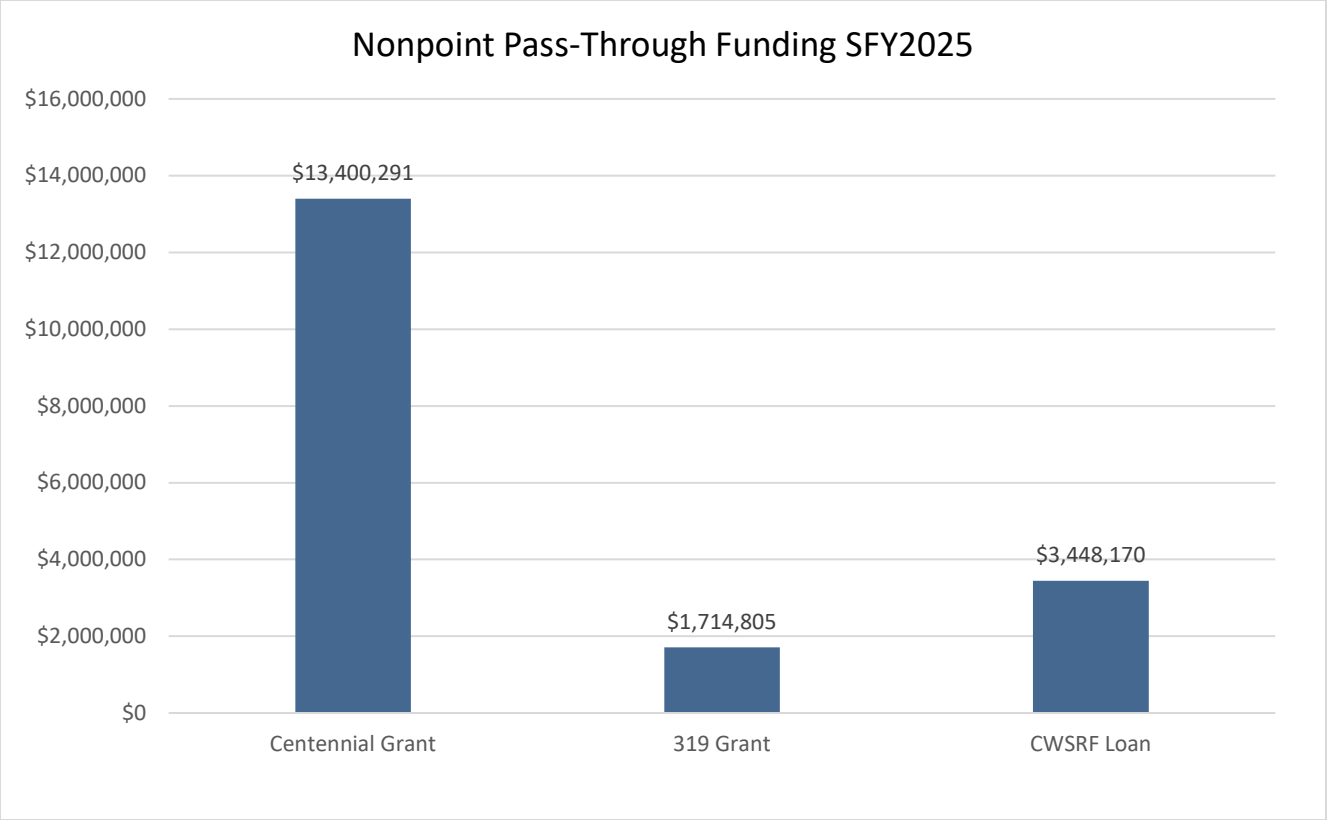

Figure 2. Nonpoint funding distributed by grant type

- **$18,445,542** total Ecology investment in nonpoint projects in SFY2025.
- **Four** projects received 319 funding through the WQC program, and **one** received funding through the DIF program.
- **25** projects received state funding, in addition to the projects that were identified to satisfy the match requirement for EPA funds.

Seven projects received matching state funding:

Table 2. Compilation of all the state funding match amounts

Fund Source	Offer Amount	Number of Projects
Centennial	$10,457,340.60	25
Centennial Match	$2,942,950.71	7
Section 319	$1,597,081	4
CWSRF	$3,448,170	1
Total	**$18,445,542**	**37**

319 Pass-Through Funding Summary

- $1,714,805allocated from EPA for pass-through.
- $1,597,081 awarded through the WQC program.
    - Ecology staff are aware that $117,724 of the EPA allocation has not been awarded and intends to offer the remaining funding as a new pass-through agreement using the DIF process in 2025.
- $2,942,950.71 identified for state match in SFY 2025. The total two-year projected match amount is $5,478,411.
    - These figures represent an over-match from the required annual match of $2,155,333 and biannually $4,310,666 but guarantees that Ecology will meet the end of grant required match amount.

Project descriptions can be found in Appendix A.

2.3.2 Load Reduction Estimates by Project in 2024

Load reduction estimates for some best management practices are provided by recipients every January for the previous calendar year. Ecology compiles and enters this data into the GRTS database annually.

EPA has inquired about yearly fluctuations in the total load reduction estimates found in this section. Load reduction estimates may differ from year to year based on several factors. Significantly, Washington state implements many BMP projects that may not result in nitrogen, phosphorus, or sediment load reductions because they are intended to reduce temperature and/or fecal coliform — which STEPL and PLET cannot currently calculate.

Temperature and fecal coliform impairments are of particular concern because of their impacts on shellfish and salmon. Ecology has placed a high priority on implementing BMPs that address these pollutants. Further, implementation of BMPs that target temperature and fecal coliform help address Tribal treaty rights at risk.

While these efforts may not be adequately captured in the reporting tables, we believe that they are good investments.

We have also included a list of BMP implementation this year (see Appendix A). These tables, when taken together, provide a more accurate picture of the environmental benefits of our investments. Pass-through grant project agreements have three to four years to complete the scope of work. Load reduction estimates resulting from active projects in 2024 are provided in Appendix A.

2.3.3 Best Management Practices (BMPs) Implemented in 2024

Pass-through grant project agreements have three to four years to complete the scope of work.

BMPs implemented through active projects in 2024 are provided in Appendix A.

2.4 Unliquidated Obligation (ULO)

Table 3. Clean Water Act 319 Grant Balance (Unliquidated Obligations) as of March 31, 2025

Project	Grant Number	Fiscal Year	Start	End	Award Amount (Federal)	Total Expenditures	Unspent Balance	% ULO
FA13	C9-00044912	2020	7/1/2021	6/30/2026	$6,466,000	$5,840,892	$625,108	9.6%
FA14	C9-02J42201	2022	7/1/2023	6/30/2028	$6,355,270	$2,658,023	$3,697,247	58.18%

These numbers are based on grant amounts awarded minus expenditures.

Chapter 3: Implementation in Action

In 2024, Ecology continued our internal and external efforts to achieve nonpoint pollution reduction goals in accordance with the state Nonpoint Pollution Management Plan. In addition to providing on-going guidance to our own staff, we have continued to build on external partnerships and use our nonpoint authority to make progress in cleaning up the state's waters.

In 2020, we reached a settlement agreement with Northwest Environmental Advocates, which included several commitments. Ecology continues to dedicate resources to implementing this settlement agreement, and we have included information on progress in this annual report.

In 2024, we achieved several key milestones in implementing the settlement agreement:

- Continued progress on developing additional chapters of the Voluntary Clean Water Guidance for Agriculture. We are on track to submit the remaining eight chapters by December 31, 2025.
- Continued to ensure that chapters of the Voluntary Clean Water Guidance for Agriculture are incorporated into our SFY2026 Water Quality Combined funding program guidelines[5].
- Reporting requirements: Annually, Ecology identifies the priority Watersheds in which non-grant implementation efforts (e.g., TMDL implementation, other nonpoint source control implementation) will be focused. This will include a description of priority actions to be conducted in each priority Watershed.
    - This annual report includes the following information:
        - Updates about the status and progress of BMP guidance development
        - Description of updates to Washington funding guidelines based on BMP guidance development
        - Use of BMP guidance for technical assistance
        - Use of BMP guidance in new TMDLs and TMDL implementation plans, TMDL implementation, and TMDL alternatives
        - BMP outreach materials and training provided to field staff
        - Number of Watershed evaluations conducted per Watershed
        - Number of complaints received and summary of complaint types

Chapter 3 is divided into five sections that align with goals identified in the 2022 Nonpoint Pollution Management Plan (we will continue to use the same structure with the 2025 updated Nonpoint Plan):

- Clean up impaired waters and meet water quality standards.
- Ensure clear standards.
- Develop and strengthen partnerships.

[5] https://apps.ecology.wa.gov/publications/SummaryPages/2410048.html

- Monitor waters for nonpoint sources impairments and program effectiveness.
- Administer the Nonpoint Source Program as effectively and efficiently as possible.

The summaries within each section include activities that supported the Nonpoint Management Plan goals during calendar year 2024. Within these goals, significant progress has been made statewide to reduce nonpoint source pollution, including:

- Made progress on developing Total Maximum Daily Loads (TMDLs) and other advance restoration plans.
- Implementing the nonpoint portions of TMDLs and other water clean-up efforts through a combination of grants/loans, technical assistance, and enforcement tools.
- Updated eligibility and funding guidance for Ecology-funded nonpoint grant and loan projects[6], to ensure guidelines continue to reflect the approved chapters of the Voluntary Clean Water Guidance for Agriculture, including the riparian buffer chapter.
- Ongoing coordination with important partners such as the WA Department of Agriculture, the Agriculture and Water Quality Advisory Committee, the WA Forest Practices Board, and various Tribal entities and organizations.
- Continued working with conservation districts, local governments, and nonprofit organizations on nonpoint education and outreach efforts.
- Provided training to nonpoint field staff.
- Made progress on updating Washington State's Water Quality Management Plan to Control Nonpoint Sources of Pollution, due to EPA by December 31, 2025.
- Made progress on additional chapters of the Voluntary Clean Water Guidance for
- Agriculture, continuing work to identify BMPs that prevent water pollution and support the achievement of water quality standards in surface waters flowing through agricultural lands.

Many sections of this chapter are divided into progress at the regional scale due to how regional staff work in and with different counties, Watersheds, and regional partners.

The following map shows the areas where regional staff dedicate their time.

Our regional offices are divided into the Southwest Regional Office (SWRO), including the Vancouver Field Office; Northwest Region Office, including the Bellingham Field Office (NWRO); the Central Regional Office (CRO); and the Eastern Regional Office (ERO).

[6] More information on Ecology's funding programs and guidelines can be found on the Ecology Water Quality Combined Funding Program webpage (https://ecology.wa.gov/About-us/How-we-operate/Grants-loans/Find-agrant-or-loan/Water-Quality-Combined-Funding-Program).

Figure 3. Map of Ecology's office locations and their boundaries.

3.1 Goal 1: Clean Up Impaired Waters and Meet Water Quality Standards

3.1.1 Development of Watershed Clean-up Plans: TMDL, ARP, and STI Projects

In September 2024, EPA transitioned states from the Bridge Metric performance metric to the Vision Performance Measure (Vision). The Vision will be carried out in two-year phases based on federal fiscal year timelines until 2032.

Vision Phase 1 began October 1, 2024, and runs through September 30, 2026. Every two-year phase, there is an opportunity to revise Vision priorities and statuses (statuses can be either complete or in progress within the two-year period).

The following table represents Ecology's Phase 1 Vision priorities (October 1, 2024, to September 30, 2026). For all TMDLs, Advance Restoration Plans (ARPs), and Straight to Implementation (STI) projects, Ecology will utilize the recommendations of the Clean Water Guidance when developing implementation plans that address nonpoint pollution from agricultural sources.

Table 4. Summary of Vision Phase 1 Watershed cleanup projects in 2024

Vision Phase 1 Projects in 2024	Status
Alkali Flat STI	Early action implementation underway. Outline developed, plan writing ongoing; strategy planned to be complete during Phase 1.
Almota and Little Almota STI	Outline and timeline under development. Will remain in progress through Phase 1.
Bonaparte Creek STI	Internal work plan drafted, in region review status. Will remain in progress through Phase 1.
Burnt Bridge Creek ARP	ARP Report drafted, reviewed by region and headquarters, revisions made. Report planned to be transmitted to EPA by 2026. Project planned to be complete during Phase 1.
Drayton Harbor Bacteria TMDL	Draft TMDL undergoing revisions after multiple reviews. TMDL to be completed in 2025. Complete during Phase 1.
French Creek ARP	Modeling by the Environmental Assessment Program was completed in 2023, and work on the technical report is ongoing. After technical work was completed, it was determined this project may become a TMDL. Will be in progress through Phase 1.
Hangman Dissolved Oxygen/pH ARP	Field work completed. Sediment study draft completed. Plan drafted in 2024. Plan writing is currently underway. Expected completion during Phase 1.
Hawk Creek STI	Early action implementation and planning has been ongoing since 2022. Strategy under development in 2024. Expected completion during Phase 1.
Lacamas Creek ARP	Plan writing underway throughout 2024. Will remain in progress through Phase 1.
Pataha Creek Multiparameter TMDL	Extended project scoping occurred in 2023. Data collection began in 2024 and still

	underway. Will remain in progress through Phase 1.
Puget Sound Nutrient Reduction ARP	Plan drafted in 2024, undergoing internal review, will remain in progress through Phase 1.
Puget Sound Nutrient Reduction ARP	Plan drafted in 2024, undergoing internal review, will remain in progress through Phase 1.
Soos Creek Dissolved Oxygen/Temperature/Bacteria TMDL	Data collection quality assurance project plan (QAPP) completed in 2023. Data collection completed in 2024. Model design and calibration is in progress from 2024. Will remain in progress through Phase 1.
Soos Creek Fine Sediment TMDL	Draft report undergoing revision after internal reviews. TMDL to be complete in 2025. Complete during Phase 1.
Spring Flat Creek STI	Initial draft completed in 2022. Strategy developed in 2023. Strategy transmitted to EPA August 22, 2024. Completed during Bridge Metric. Awaiting action from EPA.
Upper Colville STI	Early action implementation and planning in 2022 and 2023. Strategy to be developed in 2024. Expected completion during Phase 1.
White Salmon Bacteria ARP	Fieldwork completed in 2024 and plan drafted. Will remain in progress through Phase 1.
Wide Hollow Temperature TMDL	Allocations being developed, report writing in progress. Expected completion during Phase 1.

Southwest Regional Office

Total Maximum Daily Loads (TMDLs)

The Southwest Regional Office's TMDL resources and allocated Environmental Assessment Program (EAP) resources are currently focused on development of Advance Restoration Projects and scoping appropriate Watersheds for future Watershed cleanup plans.

Advances Restoration Projects (ARPs)

In 2024, a draft of the Burnt Bridge Creek ARP was completed and underwent reviews by the region and headquarters staff. The draft has since been edited to incorporate feedback. It will go out for public review and comment in 2025. There will be an informational workshop held during the public review period.

The Burnt Bridge Creek Partnership was formed in February 2021 to develop and implement the Water Cleanup Plan. This Water Cleanup Plan will focus on the best management practices and implementation actions to improve water quality. The Burnt Bridge Partnership webpage[7] will be updated in 2025 to reflect activities taken in recent years and next steps for the Partnership.

Ecology also continued work on the Lacamas Creek Watershed Source Assessment. In 2024, EAP completed the source assessment report for the Lacamas Creek Watershed and published it in March 2024. This source assessment informs the draft plan for the Lacamas Creek Advance Restoration Plan. The Lacamas Creek Partnership for Clean Water webpage[8] will be updated in 2025 to reflect activities taken in recent years and next steps for the Lacamas Creek Partnership.

Ecology's Southwest Regional Office initiated two new Advance Restoration Plan water cleanup projects in 2024 by requesting EAP resources to scope projects in the Chimacum and Quilcene/Tarboo Watersheds. Scoping has since been completed, and those projects will now transition to source assessments conducted by EAP to inform the writing of each cleanup plan.

Northwest Regional Office

TMDLs

Ecology is in the process of developing a fine sediment TMDL in Soos Creek to address impairments to benthic invertebrates, an indicator of stream health. This is the first TMDL of its kind in the state.

Fine sediments from upland sources and those produced through instream erosion must be controlled to improve stream habitat and meet water quality standards. In 2024, Ecology completed a draft of the TMDL that underwent internal review; the draft TMDL is now being

[7] https://www.ezview.wa.gov/site/alias__1962/37697/burnt_bridge_creek_partnership.aspx
[8] https://www.ezview.wa.gov/site/alias__1962/37698/lacamas_creek_partnership_for_clean_water.aspx

edited to incorporate feedback. We anticipate finalizing the draft TMDL and implementation plan in early 2025.

Following the draft completion, we will hold a 30-day public comment period and will hold informational workshops on the draft TMDL. In addition to efforts to control turbidity, the restoration of degraded habitat by improving riparian buffers and increasing channel complexity will also be part of the accompanying implementation plan. The TMDL is expected to be submitted to the EPA by fall 2025.

Ecology's second TMDL in Soos Creek will address temperature and dissolved oxygen impairments that indicate failure to meet the aquatic life designated use, and bacteria impairments that indicate failure to meet recreational uses. Data collection efforts began in 2023 and were underway throughout the year to support the technical analyses for this project. After data collection was completed in 2024, model design and calibration began and is currently still ongoing.

Ecology also continued work on the Drayton Harbor Bacteria TMDL in 2024. The draft report and implementation plan underwent internal policy review in 2024 and is currently being reviewed by external parties and being revised accordingly.

Finally, we continued work on the French Creek Watershed clean-up plan. Modeling by the Environmental Assessment Program was completed in 2023 and work on the technical report is still ongoing. Progress on this TMDL has been slowed by natural conditions issues.

Central Regional Office

TMDLs

In 2024, work on the Wide Hollow Creek Temperature TMDL continued at the Central Regional Office, with a focus on developing allocations.

A draft of this TMDL is being reviewed by the region.

ARPs

Work on the White Salmon Advance Restoration Project continued in 2024; a draft plan has been developed and is being reviewed by the region.

As of early 2025, an internal work plan for a Bonaparte Creek Bacteria Straight to Implementation project has been drafted. Bonaparte Creek is a tributary to the Okanogan River.

In 2025, Ecology's Central Regional Office requested EAP resources to conduct extended project planning (scoping) for a new water cleanup project in the Klickitat Watershed.

Eastern Regional Office

TMDLs

Ecology's Eastern Regional Office continues to focus on TMDL and STI implementation, prioritizing resources toward achieving on-the-ground actions that clean water.

In 2023, scoping for the Pataha Creek Multiparameter TMDL was completed. Data collection and planning were initiated in 2024 and are underway.

In 2025, Ecology's Eastern Regional Office requested EAP resources to conduct extended project planning (scoping) for a Spokane River temperature and Pend Oreille Toxics water cleanup project.

Straight to Implementation (STI) Projects

The Eastern Regional Office is expanding STI work to several Watersheds: Alkali Flat Creek, Almota Creek, Spring Flat Creek, Hawk Creek, and the Upper Colville Watershed.

In 2023, Ecology continued Watershed evaluations in these Watersheds to collect information on problem sites and connect with local partners. Ecology continues to gather information, and in 2024 many of these plans were still being drafted; because of staffing changes and associated vacancies, the plans were not completed in 2024.

A draft of the Spring Flat Creek STI was completed in early 2024. The Spring Flat STI Strategy was transmitted to EPA on August 22, 2024.

Alkali Flat Creek, Upper Colville, Hawk Creek, and Almota Creek STI projects remain priorities on Ecology's Vision Phase 1 list to be either completed or in development through when the Phase 1 performance measure period ends (September 30, 2026).

Statewide Projects

Puget Sound Nutrient Source Reduction Project

- **Modeling work (Phase 2 Optimization Scenarios):** This year focused on building off the modeling scenarios developed in 2022 (year two optimization scenarios) to identify a reduction scenario that achieves water quality standards across all of Puget Sound while also considering the number of reductions needed.
- **Drafting Puget Sound Nutrient Reduction Plan:** Building from the Phase 2 Optimization Scenarios, we spent a considerable amount of time last year developing an initial draft of the Puget Sound Nutrient Reduction Plan, which contains the WWTP and Watershed inflow nutrient loading targets. We initiated an internal review of the full draft in December 2024.
- **Puget Sound Spatially Referenced Regression on Watershed Attributes (Puget Sound SPARROW):** The United States Geological Survey (USGS) and Ecology have collaborated to develop refined, seasonal load estimates of total nitrogen and total phosphorus within Watersheds draining to Washington waters of the Salish Sea. Development of this model is complete, and we anticipate that it will be used for selecting Watersheds for future cleanup plans and to inform nonpoint efforts to reduce nutrients.
- **Engagement and outreach:** We continue to engage with the Nutrient Forum, comprised of the regulated community, Tribes, all levels of government, industry, environmental groups, academics, and local implementers. We plan to host multiple Forum meetings in

2025, which will focus on presenting the final round of Salish Sea modeling results, an overview of the contents of the Nutrient Reduction Plan, and 2027 preliminary draft General Permit requirements.

3.1.2 Implementation of TMDLs, STIs, and Nonpoint Enforcement Efforts

Ecology continues to promote water cleanup activities across Washington state with an emphasis on our TMDL, STI, and ARP Watersheds.

Each of our regional offices chose selected areas where we are attempting to increase the pace of BMP implementation to address nonpoint pollution.

The following are focus Watersheds for our regional staff's implementation efforts and are part of continuing multi-year efforts (focal issues in parentheses):

Southwest Regional Office

- Puyallup River: Boise, Pussyfoot, and Second creeks (bacteria TMDLs)
- Deschutes River, Percival Creek, and Budd Inlet Tributaries (multiparameter TMDL: bacteria, temperature, dissolved oxygen, and nutrients)
- Key Peninsula (nonpoint enforcement: bacteria)
- Henderson, Eld Inlet, and Nisqually Reach (bacteria TMDLs)
- Oakland Bay and Johns Creek (bacteria, temperature, dissolved oxygen TMDL)
- Skokomish River Valley and Annas Bay (nonpoint enforcement: bacteria, pH, dissolved oxygen, ammonia; bacteria TMDL)
- Lacamas Creek (bacteria, pH, temperature, dissolved oxygen ARP)
- East Fork Lewis River (bacteria, temperature ARP)

Northwest Regional Office

- Green-Duwamish River (temperature TMDL)
- Lower Skagit River (temperature and bacteria TMDLs)
- Samish Bay Watersheds (bacteria TMDL)
- Stillaguamish River (multiparameter TMDL: bacteria, dissolved oxygen, pH, arsenic, and mercury)
- Snohomish River (bacteria TMDL)
- Nooksack River (bacteria TMDL)
- Whatcom Creek (bacteria TMDL)
- Lake Whatcom Watershed (multiparameter TMDL: total phosphorus and bacteria)
- Drayton Harbor (bacteria TMDL)

Central Regional Office

- Lower Yakima River Watersheds (sediment, bacteria, temperature TMDLs)
- Wilson Creek Watershed (bacteria TMDL implementation)
- Granger Drain (bacteria TMDL implementation)

- Bonaparte Creek (STI development: bacteria)
- White Salmon River (ARP development: bacteria)

Eastern Regional Office

- Hangman Creek (bacteria, dissolved oxygen, nutrients, pH, temperature, turbidity TMDLs)
- North Fork and South Fork Palouse River (bacteria, temperature TMDLs)
- Little Spokane River (TMDLs for bacteria, temperature, dissolved oxygen, total phosphorus, and pH)
- Moses Lake (locally led partnership: harmful algal blooms)
- Lower Snake River tributaries: Alpowa Creek, Deadman/Meadow Creek, Tenmile Creek, and Couse Creek 4b projects (bacteria, dissolved oxygen, pH, temperature STI)
- Upper Snake River tributaries: Steptoe, Alkali Flat, Almota Creeks (bacteria, dissolved oxygen, pH, temperature STI)
- Lower Snake River tributary: Asotin Creek (Temperature STI)
- Walla Walla River Watershed Multiparameter TMDLs (bacteria, temperature, pH, dissolved oxygen, toxics)

Ecology's nonpoint compliance staff work out of four regional offices: Southwest, Northwest, Central, and Eastern. By working out of regional offices, staff can be locally engaged with partner organizations, active on the ground, and have an increased awareness and involvement in local water quality issues.

As stated in Chapter 2, 319 funding from EPA provides 2.10 FTEs focused on technical assistance and compliance activities; when combined with positions supported via state funding allocated from the legislature, the nonpoint technical and compliance positions total 10 FTEs focused solely on TA and compliance, 11 FTE who conduct both TA/compliance and TMDL writing, and two staff who focus on outreach and education communications. Additionally, there are six positions focused on implementation of the forest practice rules.

Nonpoint staff frequently coordinate with local partners, including municipal and county government agencies, interagency workgroups, Pollution Identification and Correction (PIC) groups, local Tribes, conservation districts (CD), and local Watershed groups.

Across the regions, information is shared between nonpoint staff and our partners through a variety of methods, often tailored to the needs and preferences of the community and partners. This may include workgroup meetings, attendance at monthly conservation district board meetings, and one-on-one conversations between Ecology staff and staff of local partner organizations. In the Southwest Regional Office, a monthly newsletter shares information among active partners.

Whatever the method, there is an emphasis on continuing to develop cooperative relationships with local restoration practitioners. Because these organizations are often local technical assistance resources for landowners needing to make improvements, these relationships consistently prove to be invaluable for implementing water quality improvement BMPs.

Due to the often-high costs of BMP implementation for landowners, nonpoint field staff work to support grant applications from CDs and other local partners. Nonpoint staff work with Ecology's grants staff to provide grant information, application assistance, and feedback to potential applicants prior to the grant submission deadline.

In our Eastern region, nonpoint staff continue to work with landowners and local CDs to maintain an innovative grant structure that utilizes incentive payments for riparian buffer implementation, to compensate producers for loss in income due to the change in land use. This program has been hugely successful and instrumental in achieving change on the ground. We continue to strive to identify new Watersheds and partners to work toward applying this commodity-based incentive structure in new Watersheds within the state.

Through technical assistance letters, outreach mailers, phone calls, and in-person site visits, nonpoint staff provide landowners with resource-specific water quality education materials (e.g. information on the impacts of land use practices on water quality and agricultural BMPs for water quality protection, utilizing the recommendations of the Clean Water Guidance for Agriculture chapters).

Staff work with landowners to contextualize the impacts of local actions on water quality, explain water quality data, provide recommendations to address nonpoint source pollution, and provide referrals to local partners for financial assistance through cost-share programs and grants. While nonpoint staff strive to work with landowners to implement the necessary changes, we rely on the regulatory authority granted by RCW 90.48 to achieve compliance with state water quality law when necessary.

In general, there are two main methods by which staff identify and respond to nonpoint pollution: reactively to environmental complaints submitted by the public, and proactively via Watershed evaluations in priority areas.

Watershed evaluations help to prioritize efforts and focus resources throughout the region. Staff may also use water quality sampling to identify focal reaches and track progress. Regardless of the method of identification, sites with verified nonpoint concerns are recorded in the Nonpoint Implementation (NPI) database, and staff follow internal guidance documents and a graduated compliance flowchart to address pollution concerns.

For each region's focal Watersheds, priority actions taken in 2024 are highlighted below.

Southwest Regional Office Priority Watersheds

Priority Watershed Name: Boise, Pussyfoot, and Second Creeks — Enumclaw Plateau

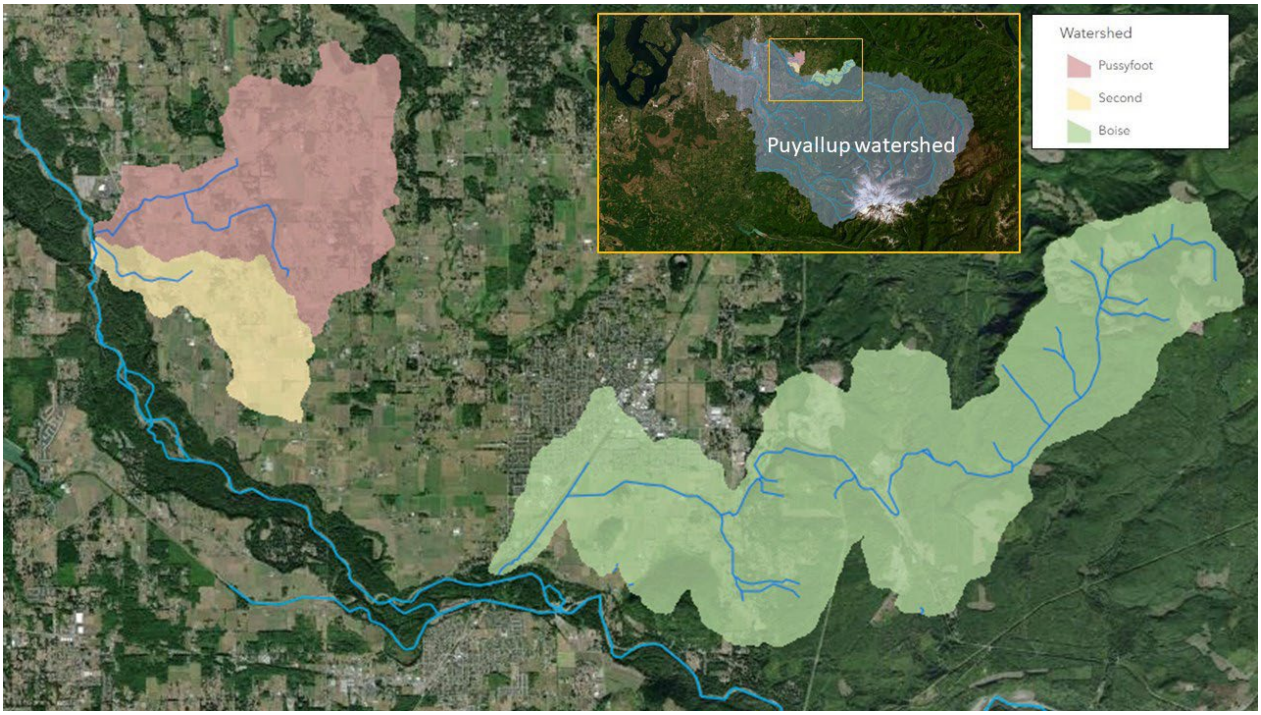

Figure 4. Map showing White River TMDL priority Watersheds: Boise, Pussyfoot, and Second creeks

Implementing: Puyallup Watershed Fecal Coliform TMDL; Lower White River pH TMDL

Summary/Context Info:

Since 2014, Ecology nonpoint staff have been collaborating with other state and local partners to monitor, identify, and address pollution issues on the WRIA10 (Puyallup-Lower White Basin) side of the Enumclaw Plateau. Ecology identified three tributaries within the Enumclaw plateau as priority Watersheds: Boise Creek, Pussyfoot Creek, and Second Creek. Nonpoint pollution inputs within these Watersheds significantly increase during the wet season due to the poor drainage throughout the plateau. External partners include the Muckleshoot Tribe, U.S. Natural Resources Conservation Service, Washington State Department of Agriculture, King County Livestock, King County Public Health, King County Department of Water and Land Resources, King County Public Health, King Conservation District, City of Enumclaw, Enumclaw Community Association, and others.

Priority Actions Completed in 2024:

Education and Outreach

- **Distributed outreach materials at the King County Fair:** Ecology staff worked to interact with the community and distributed educational materials to members of the public at the King County Fair in July.
- **Maintained and updated Enumclaw Water Quality Partnership webpage:** This repository of information about the Partnership also includes links to other data and information about work on the Enumclaw Plateau and the two WRIA10 TMDLs. We include links and QR codes to it in all technical assistance letters to landowners.
- **Translations:** Ensured that Landowner Self-Assessment, which is sent in all technical assistance letters, was translated into Spanish.

Financial Assistance

- **Provided partners with front-end feedback on grant proposals:** In an effort to encourage and assist our partners to draft successful grant proposals, we coordinated with grants staff to provide grantees with the option to submit a notice of intent and receive feedback prior to the fall Water Quality Combined grant submittal deadline. We also coordinated with grants staff to evaluate whether implementation projects at nonpoint sites of concern would be appropriate for DIF funding, identified a local partner to work with, and then completed DIF applications. One such application on the Enumclaw Plateau was awarded $110,000 for riparian restoration on Boise Creek.
- **Provided information to landowners**: Ecology continued to provide information about and financial assistance available to landowners as they moved forward with BMP implementation.

Partner Coordination

- **Continued to hold sites of concern prioritization meetings with partners:** Coordinated and facilitated meetings with partners directly involved with BMP implementation on the plateau to discuss and receive feedback about future and ongoing enforcement activities. This included 1:1 meetings with Muckleshoot Tribe natural resources staff, 1:1 meetings with WSDA staff to coordinate on dairy properties and those undergoing CAFO permitting, quarterly and ad-hoc small group meetings with King Conservation District staff, and frequent communication with King County Stormwater Services staff (including some trips into the field).
- **Held quarterly partner meetings to facilitate sharing of water quality monitoring data:** Continued to hold quarterly meetings with tribal, federal, state, and local water quality monitoring staff to share data, facilitating the coordination and prioritization of field efforts. Organized presentations of interest to the group (including one on Ecology Nonpoint Compliance and Enforcement 101) and facilitated group brainstorm and networking activities.
- **Continued to participate in monthly King County Peer-to-Peer engagement meetings:** Provided feedback and direction to the King County group that is working to understand successful engagement strategies. Provided feedback on draft engagement survey for

landowners. Suggested new topics and ideas to cover, such as bringing in local experts to explain County Public Benefit Rating System tax breaks, and County drainage programs.
- **Reached out to form connections with new Watershed partners** including King County's Public Benefit Ratings System staff and stormwater staff who perform business inspections for equestrian facilities.

Pollution Identification/Watershed Evaluation

- **Watershed evaluations:** Continued to work in the field and within the community to identify additional sites of concern that have not yet been prioritized. Successfully visited all legacy/inherited sites of concern over the year and documented several new sites of concern. Concurrent with this effort, staff systematically updated sites of concern in the Nonpoint Implementation (NPI) database.
- **Used monitoring data to refine nonpoint efforts:** Staff from SWRO Water Quality's Water Clean-up Unit conduct effectiveness monitoring around the Plateau. King County Stormwater Services also collects monitoring data. In consultation with monitoring and TMDL staff, Nonpoint staff used this data to help prioritize work efforts, creating a strategy of priority reaches that was supported by Enumclaw Watershed partners. GIS maps depicting the priority reaches were created and shapefiles disseminated to all partners. All existing sites of concern were assigned a priority based on which reach they are located in, and new sites of concern were slotted into the reach designations and assigned a corresponding priority. Compliance actions began to be completed using this prioritization scheme.

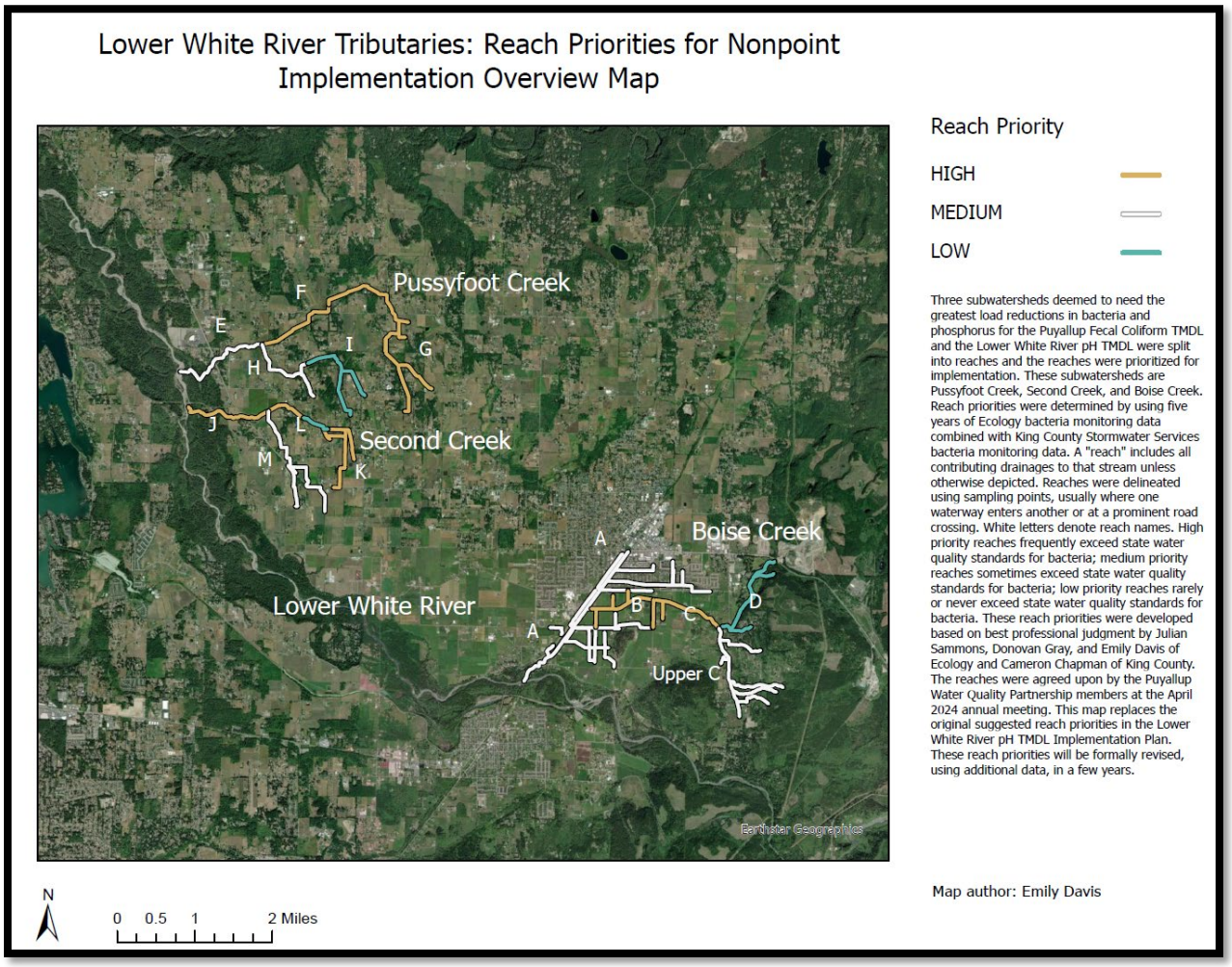

Figure 5. Map showing priority reaches in Boise, Pussyfoot, and Second creeks based on monitoring data

Compliance/Technical Assistance Activities

- **Provided technical assistance to area livestock owners:** Ecology worked to connect with area livestock owners to provide technical assistance. In this process, Staff made liberal use of Ecology's in-house translation services and the State's contracted language services vendors to ensure that properties with non-English speaking landowners were receiving letters and other communications in their preferred language. Staff also used on-site interpretation for site visits with non-English speaking landowners, and had farm plans translated.
    - **Letters and other communications:** Staff sent five technical assistance 1 (TA1) letters, five technical assistance 2 (TA2) letters, and one warning letter. Three other warning letters were prepared but have not yet been sent. Two follow up letters to site visits were also sent. Staff also sent countless emails and text messages and made countless phone calls to landowners.

- **Site visits:** Four in-person site visits — sometimes joint site visits with King Conservation District staff — were completed on parcels that have been identified as sites of concern. Site visits have led to landowners taking recommended steps or Ecology taking further enforcement actions.
- **Compliance steps:** Nonpoint staff wrote an administrative order for one property.
- **Evaluated and responded to incoming ERTS complaints:** Continued to respond directly or coordinated with WSDA, King County, and City of Enumclaw staff to address nonpoint-related pollution sources. Staff responded to or coordinated response regarding seven ERTS complaints from the Enumclaw area, five of which were agriculture related.

Priority Watershed Name: Deschutes River, Percival Creek and Budd Inlet Tributaries

Figure 6. The Deschutes Watershed is pictured in blue. Inset: Location of the Deschutes Watershed within Western Washington.

Implementing: Deschutes River, Percival Creek, and Budd Inlet Tributaries Multiparameter TMDL

Summary/Context Info:

The Deschutes River, Percival Creek, and Budd Inlet Tributaries TMDL was submitted to EPA in 2018. These waterbodies are impaired for bacteria, temperature, dissolved oxygen, and nutrients. Partners involved include: Thurston County Environmental Health, Thurston County Community Agriculture Program, Thurston Conservation District, Cities of Olympia, Lacey, and Tumwater, Squaxin Island Tribe, WRIA 13 Lead Entity, South Puget Sound Salmon Enhancement Group, Capitol Land Trust, Deschutes Estuary Restoration Team, Washington Department of Fish and Wildlife, and others.

Priority Actions Completed in 2024:

Financial Assistance

- **Provide partners with front-end feedback on grant proposals:** In an effort to encourage and assist our partners to draft successful grant proposals, we coordinated with grants staff to provide grantees with the option to submit a notice of intent and receive feedback prior to the fall submittal deadline for the Water Quality Combined grant. We also coordinated with grants staff to evaluate whether implementation projects at nonpoint sites of concern would be appropriate for DIF funding, identified a local partner to work with, and then completed DIF applications.
- **Provided information to landowners**: We provided information about technical and financial assistance available to landowners as they moved forward with BMP implementation.

Partner Coordination

- **Held sites of concern prioritization meetings with state and local partners and interested parties:** Ecology staff coordinated and facilitated meetings with partners directly involved with BMP implementation to discuss and receive feedback about future and ongoing enforcement activities. This included 1:1 meetings with Squaxin Island Tribe natural resources staff, 1:1 meetings with WSDA staff to coordinate on dairy properties and those undergoing CAFO permitting, and monthly 1:1 meetings with Thurston Conservation District staff. In addition, we met with Thurston County Environmental Health program staff to coordinate on parcels of concern.
- **Created multi-agency Task Force**: Ecology staff brought together partners from several Thurston County programs, WDFW, DNR, Thurston Conservation District, WSDA, Olympic Region Clean Air Agency, and Ecology programs such as SEA, HWTR, Water Resources, Construction Stormwater, and Toxics Cleanup Program to coordinate regarding a particularly challenging compliance case. These monthly meetings are

ongoing and are a chance for programs to keep each other updated and stay on the same page regarding the case.

- **Attended partner meetings to build relationships and knowledge about goings-on in the Watershed:** Ecology staff attended monthly WRIA 13 Lead Entity meetings as well as quarterly Thurston Shellfish Protection District Pollution Identification and Control meetings.

Pollution Identification/Watershed Evaluation

- **Watershed evaluations:** Since the Deschutes is a new focus Watershed for SWRO as of fall 2023, not many sites of concern had been identified when the area became a focal Watershed. Several Watershed evaluations in early 2024 identified over 20 new sites. Staff performed several additional Watershed evaluations in this Watershed in 2024 and early 2025 to identify additional sites of concern and re-check previous sites, resulting in 30 total sites of concern. Staff documented sites of concern in the Nonpoint Implementation (NPI) database.

Compliance/Technical Assistance Activities

- **Provided technical assistance to area livestock owners:** Ecology worked to connect with area livestock owners to provide technical assistance.
    - **Letters and other communications:** Staff sent seven technical assistance 1 (TA1) letters, two technical assistance 2 (TA2) letters, and two warning letters. Staff also sent countless emails and text messages and made countless phone calls to landowners.
    - **Site visits:** Staff performed one site visit to inspect a property and talk with landowners about best management practices. This was a joint site visit with another Ecology program, TCD, and WSDA.
    - **Compliance steps:** Nonpoint staff wrote an agreed order for one property.
    - **Evaluated and responded to incoming ERTS complaints:** Nonpoint staff responded directly to or coordinated with WSDA and Thurston County to address nonpoint-related pollution sources. Staff responded to or coordinated response regarding 5 ERTS complaints from the Deschutes focal Watershed area, 1 of which was agriculture related.

Priority Watershed Name: Greater Key Peninsula

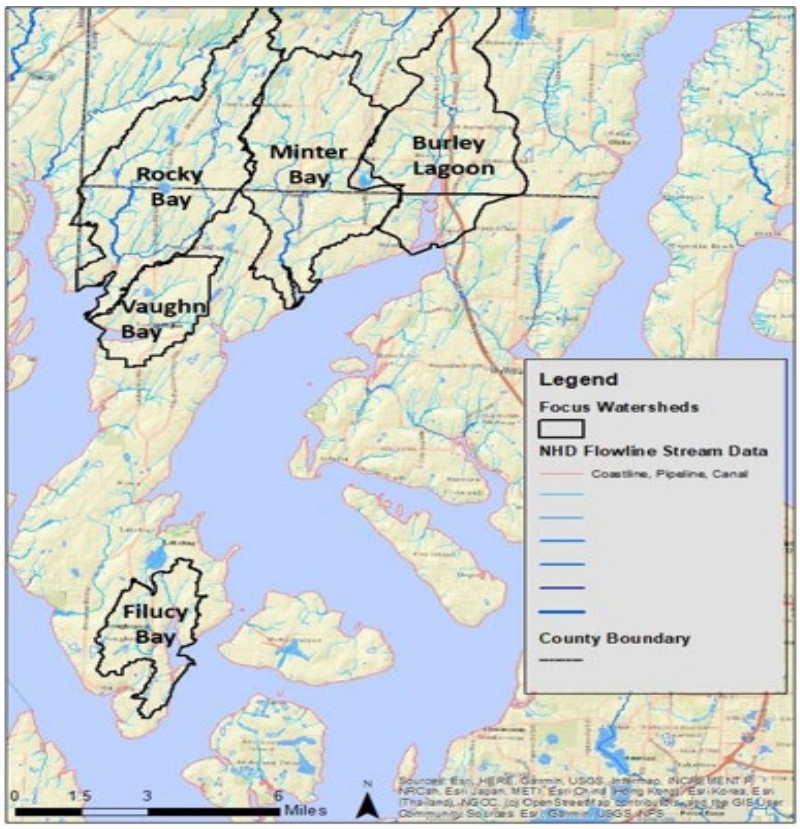

Figure 7. Map of the five focal Watersheds within Key Peninsula

Implementing: Puget Sound Partnership Action Agenda; Puget Sound Nutrient Source Reduction Project

Nonpoint work within these five sub-Watersheds is funded by a National Estuary Program (NEP) grant that is overseen and administered through the Washington Department of Health. In 2024 this grant contract with NEP was terminated. Nonpoint staff work with local partners including Tacoma-Pierce County Health Department, Pierce County Planning and Public Works Department, Pierce Conservation District, Pierce County Code Enforcement, and landowners to reduce nonpoint sources of bacterial pollution originating from agricultural activities.

Summary/Context Info:

The entire Key Peninsula is 16 miles long and extends southward from the Kitsap Peninsula into the South Puget Sound, flanked by Case and Carr Inlets. The Greater Key Peninsula project area includes Pierce County drainages from Rocky Bay, Vaughn Bay, Filucy Bay, Burley Lagoon, and Minter Bay. These shallow, tidally influenced bays are known for low flushing rates, abundant shellfish, and continual shellfish closures due to elevated levels of fecal bacteria. Due to efforts by local partners and increased public awareness several shellfish areas have improved over the recent years. Additionally, the number of hobby farms and other agricultural-related activities

has decreased in the area. Nonpoint staff have worked with local partners to identify the nature of pollution sources (e.g. livestock or on-site septic systems) and respond where our partners' jurisdiction does not extend. This often includes addressing agricultural sources. Staff also function as a regulatory backstop when local partners' authority is unable to bring about changes that adequately protect water quality.

Priority Actions Completed in 2024:

Education and Outreach

- **Communicating Education Information:** Staff presented educational information through technical assistance letters, phone calls, in-person meetings, and outreach letters. A total of four technical assistance letters were mailed.

Financial Assistance

- **Offers of Financial Assistance: :** Staff gave information regarding opportunities for landowners to access financial assistance resources through a total of four correspondences.

Partner Coordination

- **Partner meetings:** Staff participated in 12 shellfish protection district meeting and 8 meetings with partners such as Tacoma Pierce County Environmental Health and Pierce County Enforcement to coordinate efforts to address specific pollution concerns. Staff attended Pierce CD board meetings to provide updates and serve as a bridge between the two agencies.

Pollution Identification/Watershed Evaluation

- **Watershed evaluations:** Two Watershed evaluations were completed in 2024, during which 12 agricultural sites of concern were identified and 4 were prioritized for follow-up actions.

Compliance/Technical Assistance Activities

- **Technical assistance and compliance follow-through:** Staff issued 4 technical assistance letters, delivered 0 door hangers, and conducted 2 evaluations of sites of concern from the public right-of-way.

Monitoring Activities

- **Investigatory collection:** Staff continue to survey the area through Watershed evaluations and follow-up on historic cases in the area.
- **Partner PIC monitoring –** Staff utilized data collected by the local health department or the WA State Department of Health to respond to elevated bacteria detected in

assigned focus Watersheds. Additionally, staff met with Pierce County IDDE to share sampling data collected by the IDDE team.

Note: *The Greater Key Peninsula was dropped from 2025 focal Watersheds due to the termination of the NEP contract as well as a decreased need for nonpoint staff presence in the area. Water quality concerns continue to be addressed through the local shellfish pollution district.*

Priority Watershed Name: Eld Inlet, Henderson Inlet, and Nisqually Reach

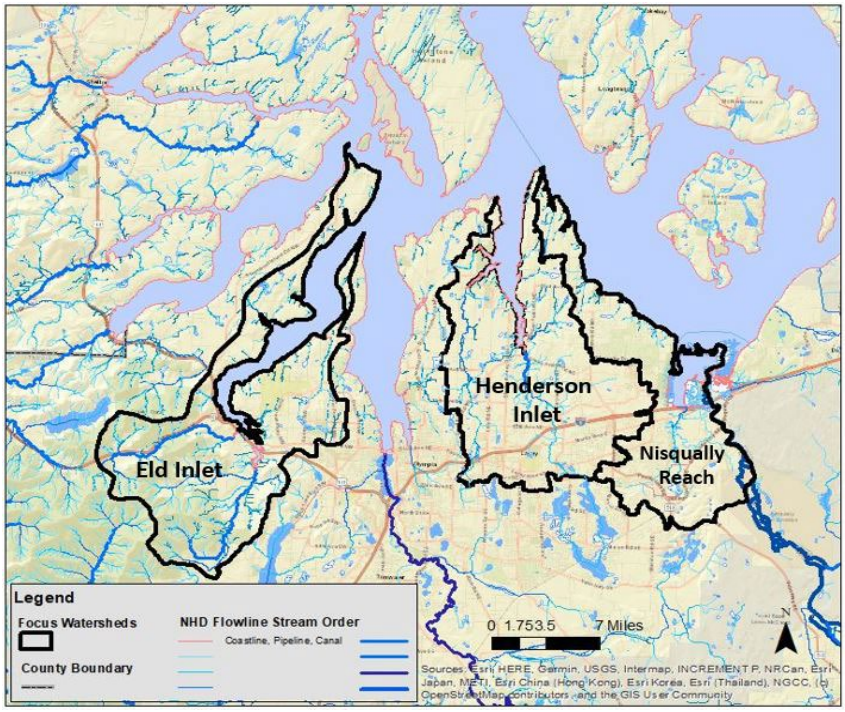

Figure 8. Map showing locations of the priority Watersheds in South Puget Sound

Implementing: Puget Sound Partnership Action Agenda

Nonpoint work within these three sub-Watersheds was funded in 2024 by a National Estuary Program (NEP) grant that is overseen and administered by the Washington Department of Health (DOH). Nonpoint staff work with local partners such as Thurston County Public Health and Social Services, Thurston Conservation District, Thurston County Code Enforcement, Henderson Inlet/Nisqually Reach Shellfish Protection District, and landowners to reduce nonpoint sources of bacteria pollution originating from domestic and agricultural activities.

Summary/Context Info:

The Eld and Henderson Inlets and the Nisqually Reach drainage areas are located within the South Puget Sound, known for low flushing rates and abundant shellfish habitat. These Watersheds have shellfish growing areas identified by DOH as at risk of closure due to elevated

marine fecal coliform levels. These Watersheds also support salmon habitat in rural, suburban, and urban areas and the majority of land use is residential with a low density of small agricultural sites. SWRO staff have been coordinating nonpoint efforts in these Watersheds in concert with local partners' outreach and PIC work.

Priority Actions Completed in 2024:

Education and Outreach

- **Partner coordination to provide educational materials and accurate information to landowners:** Staff coordinated with Thurston Conservation District, Thurston County Public Health, and Nisqually Reach/Henderson Inlet Shellfish Protection District to continue to follow up on complaints in this area and refer complaints to appropriate agencies. A total of five technical assistance letters were sent and one in-person visit was conducted with property owners.

Financial Assistance

- **Offers of financial assistance resources:** Staff provided information regarding grant opportunities to local partners during partner meetings, through technical assistance letters, and complaint responses.

Partner Coordination

- **Quarterly partner meetings:** Staff facilitated and participated in four Pollution, Identification and Correction (PIC) meetings with local partners to coordinate efforts, provide updates, and address specific pollution concerns. Additionally, staff regularly met with Thurston Conservation District to discuss sites of concern.

Pollution Identification/Watershed Evaluation

- **Complaint/Referral response:** Staff coordinated with local partners to respond to concerns. County code enforcement was referred, and local residents began looking into improvements to their private infrastructure that would be protective of water quality and local salmon populations. A total of 3 Watershed evaluations were completed and 20 sites of concerns were identified.

Compliance/Technical Assistance Activities

- **Site of concern resolution and follow-up:** Staff coordinated with local partners to resolve nonpoint water quality concerns at one identified sites of concern.

Monitoring Activities

- **Pollution Identification and Correction (PIC) coordination:** Staff coordinated and participated in four PIC and two Shellfish Protection District meetings, as well as regular informal staff-to-staff meetings, during which partners discussed ambient monitoring efforts and results.

Priority Watershed Name: Oakland Bay and Johns Creek

Figure 9. Map of Oakland Bay and John's Creek

Implementing: Puget Sound Partnership Action Agenda

Nonpoint work within these sub-Watersheds is funded by a National Estuary Program (NEP) grant that is overseen and administered through the Washington Department of Health. Nonpoint staff work with local partners, Mason County Environmental Health Department, Mason Code Enforcement, Mason Conservation District, Squaxin Island Tribe, as well as landowners to reduce nonpoint sources of bacteria pollution originating from agricultural activities.

Summary/Context Info:

Oakland Bay is a shallow, poorly flushed embayment connected to the South Puget Sound, with a history of poor water quality and an extremely productive shellfish industry. Because of its poorly flushed nature, shallow waters, and increasing population, Oakland Bay continues to

experience declining water quality. Johns Creek enters Oakland Bay at its northwestern shore. Multiple water quality parameters in Johns Creek have impairments, including bacteria, temperature, and dissolved oxygen. Nonpoint staff have identified agricultural operations and residential onsite septic systems that are impacting the water of both Oakland Bay and Johns Creek.

Priority Actions Completed in 2024:

Education and Outreach

- **Education information communicated:** Staff presented educational information through one communication with landowners; this was a follow-up conversation with a landowner who received an Administrative Order in 2023.

Financial Assistance

- **Offers of financial assistance resources:** Staff gave information regarding opportunities for landowners to access financial assistance resources through two correspondences. Staff also regularly provided information regarding grant opportunities to local partners.

Partner Coordination

- **Partner meetings:** Staff participated in 3 PIC meetings and 4 additional multi-partner meetings to coordinate efforts to address specific pollution concerns. Staff attended Mason CD board meetings to provide updates and serve as a bridge between the two agencies.

Pollution Identification/Watershed Evaluation

- **Complaint/Referral response:** Staff coordinated with local partners to respond to any complaints received and 1 Watershed evaluation was conducted.

Compliance/Technical Assistance Activities

- **Technical assistance and compliance follow-through:** Staff issued no enforcement actions or technical assistance letters during this time.

Monitoring Activities

- **Investigatory sample collection:** Staff worked with Mason County Environmental Health who regularly sampled waterways in the Watershed and informed DOE of abnormal sampling.

Priority Watershed Name: Skokomish Valley and Annas Bay

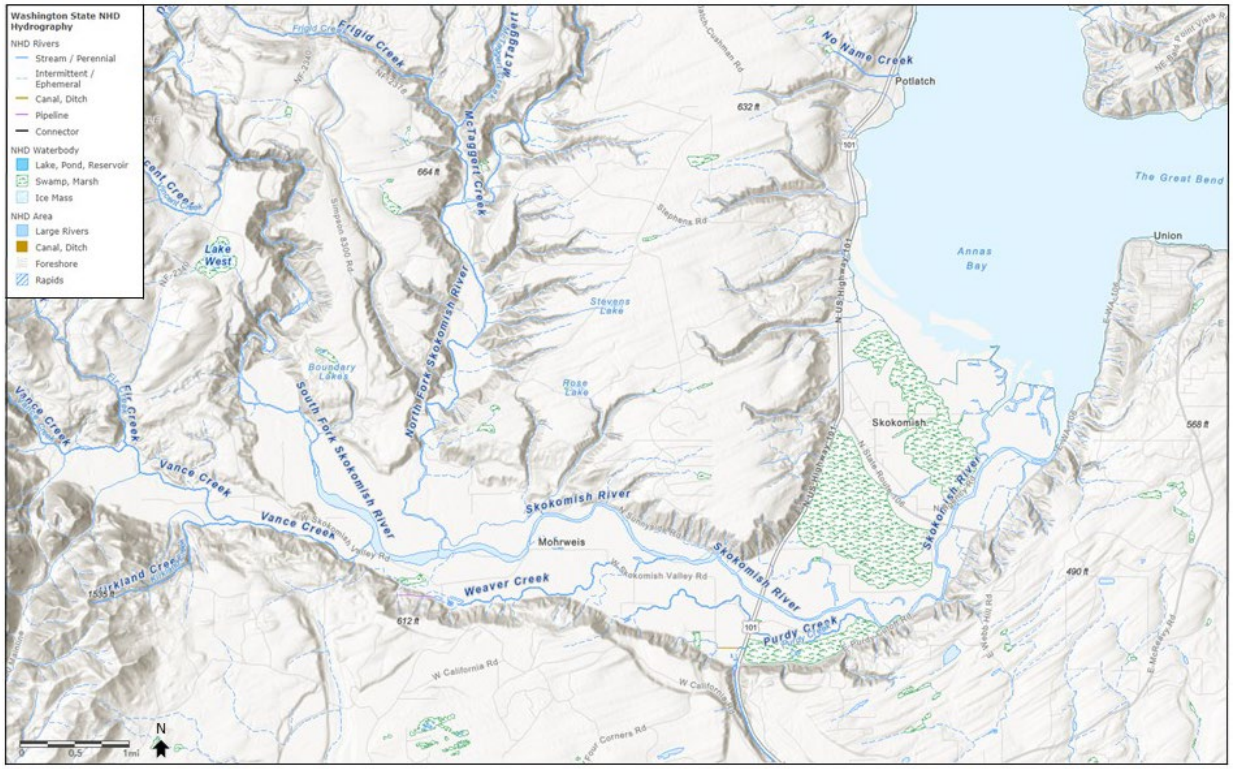

Figure 10. Map of Skokomish Valley and Annas Bay

Implementing: Puget Sound Partnership Action Agenda

Nonpoint work within this Watershed is funded by a National Estuary Program (NEP) grant that is overseen and administered through the Washington Department of Health. Nonpoint staff work with local partners, Mason County Environmental Health Department, Mason Code Enforcement, Mason Conservation District, Skokomish Tribe, and landowners to reduce nonpoint sources of bacteria pollution originating from agricultural activities. After responding to multiple ERTS and partner referrals within these Watersheds/sub-Watersheds, staff observed multiple parcels where livestock operations have had the potential to contribute to bacteria pollution. Furthermore, risk to shellfish growing areas downstream from bacteria pollution continued to increase, increasing the risk of growing area closures.

Summary/Context Info:

The Skokomish River and the Delta, known as Annas Bay, boasts hundreds of acres of tidal flats used for shellfish harvest, and are home to numerous species of fish and wildlife including ESA-listed Coho and threatened stocks of Chinook. Flooding events in the Valley magnify the water quality impacts of livestock operations and Ecology is working to address the pollution inputs of this small community.

Priority Actions Completed in 2024:

Education and Outreach

- **Education information communicated:** Staff presented educational information through 5 communications to landowners. Communications included technical assistance letters, formal enforcement, and in-person conversations.

Financial Assistance

- **Offers of financial assistance resources:** Staff gave information regarding opportunities for landowners to access financial assistance resources through all correspondences. Staff also regularly provided information regarding grant opportunities to local partners on occasions.

Partner Coordination

- **Reported concerns:** Nonpoint staff communicated and coordinated with area partners to identify appropriate responses to five ERTS complaints.
- **Partner Meetings:** Staff participated in 4 PIC meetings and 4 additional multi-partner meetings to coordinate efforts to address specific pollution concerns. Staff attended Mason CD board meetings to provide updates and serve as a bridge between the two agencies.

Pollution Identification/Watershed Evaluation

- **Complaint/Referral Response:** Staff coordinated with local partners while conducting 2 Watershed evaluations and six site visits to identify sources of pollution.

Compliance/Technical Assistance Activities

- **Technical Assistance:** Ecology staff sent three technical assistance letters to Skokomish Valley agricultural property landowners adjacent to impaired waters.
- **Site visits:** Ecology staff made over 2 dozen observations in the field and conducted six site visits in the Valley.
- **Follow-up letters:** Ecology sent 1 follow-up letter to a landowner in the Valley.
- **Administrative Orders:** Ecology sent 1 Administrative Order to a landowner in the Valley. This property has been a site of concern for 20+ years and livestock have been removed from the property as of Fall 2024.

Monitoring Activities

- **Pollution Identification and Correction (PIC) coordination:** Staff participated in four Clean Water District meetings, as well as regular informal staff-to-staff meetings, during which partners discussed ambient monitoring efforts and results.

Priority Watershed Name: Lacamas Creek Watershed

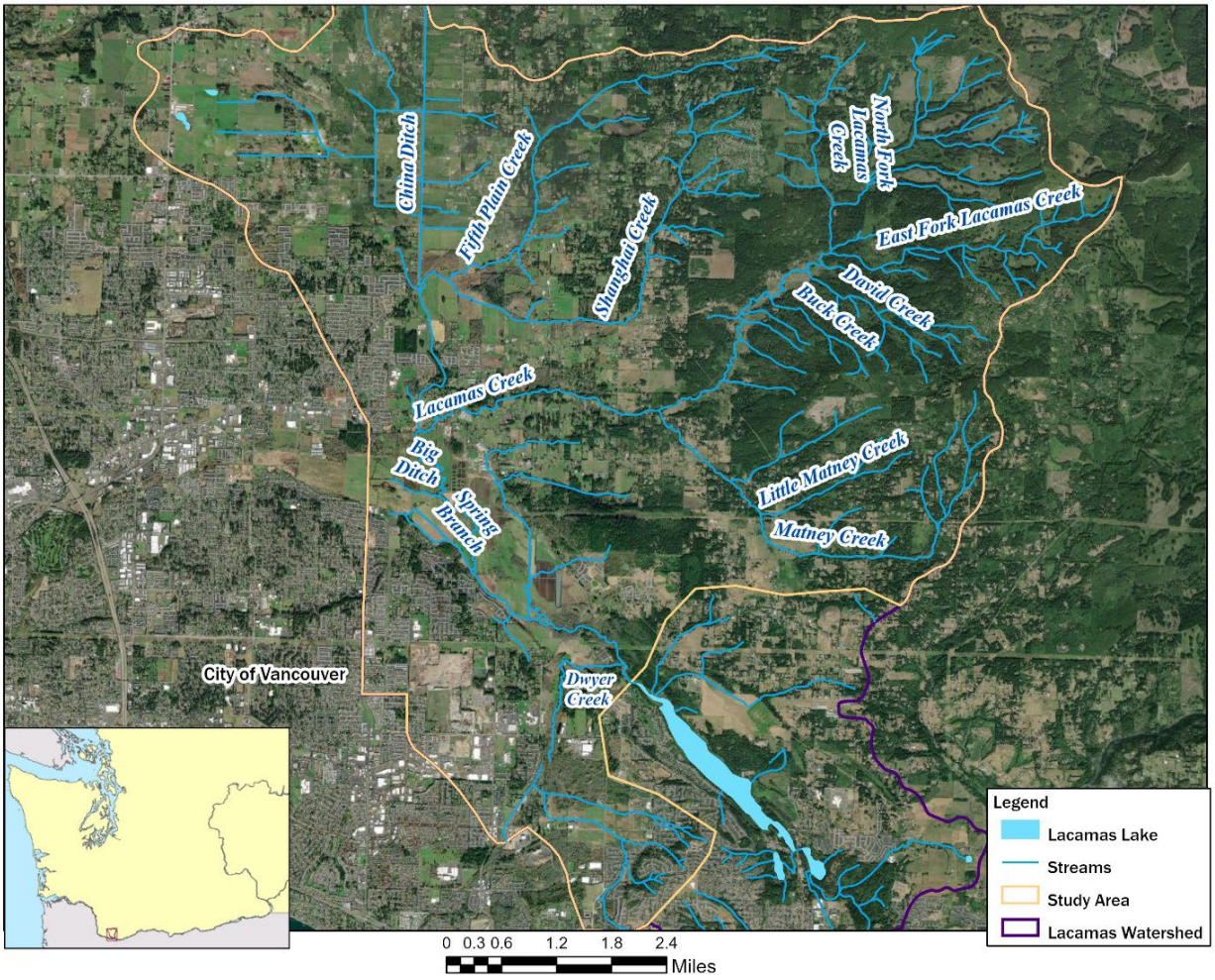

Figure 11. Map of the Lacamas Creek Watershed

Implementing: Lacamas Creek Partnership for Clean Water Action Agenda

The Washington State Department of Ecology (Ecology) is the lead for the Lacamas Creek Partnership for Clean Water. Supporting partners are Clark County, City of Camas, Washington State Department of Agriculture, Clark Conservation District, and the United State Department of Agriculture's Natural Resource Conservation Service (USDA NRCS).

Summary/Context Info:

The Lacamas Creek Watershed is home to one of the fastest growing cities in Washington State, and on Washington State's polluted waters list for warm water temperatures, bacteria, dissolved oxygen, and pH impairments. The Lacamas Creek Partnership has been established to improve the waterbody. Lacamas Lake eutrophication was first recognized in the 1970's and the

Lacamas Creek Watershed TMDL was first published January 1996. The focal waterbodies and impairments of the Watershed include China Ditch (Phosphorus, Nitrogen), Shanghai Creek (Bacteria), Fifth Plain Creek (Temperature, Nitrogen), Big Ditch (Temperature), Spring Branch Creek (Phosphorus, Nitrogen), Lower Lacamas Creek (Nitrogen, Bacteria), Dwyer Creek (Phosphorus, Temperature).

Priority Actions Completed in 2024:

Education and Outreach

- **Public Events:** Ecology staff coordinated with the Clark County Conservation District, Clark County Public Health, and Clark Public Utilities on water quality workshops and participate in public outreach events, when appropriate.
- **Landowners:** Ecology provided water quality related educational materials to landowners within the Watershed with an estimated 3 site visits per year by either Ecology staff or referred to the Conservation District's Working Lands Program Manager.

Financial Assistance

- **PIC Funding:** In 2022, Ecology funded the initiation of Poop Smart Clark Pollution Identification and Correction (PIC) program in four selected sub-Watersheds addressing livestock and onsite nonpoint pollution concerns. Ecology award = a total of $666,666.67.
- **Riparian Restoration Funding:** Ecology has allocated $297,000 secured through Direct Implementation Funding to a former dairy to create riparian forests along Lacamas Creek and its tributaries, using vegetated buffers across the 400-acre site, with an estimated 60 acres of riparian areas to be protected and restored through native plantings

Partner Coordination

- **Lacamas Creek Partnership:** SWRO staff collaborated and attended annual meetings with Clark County, City of Camas, Washington State Department of Agriculture, Clark Conservation District, and the United State Department of Agriculture's Natural Resource Conservation Service.
- **Conservation District:** SWRO staff attended monthly Clark Conservation District Board Meetings and coordinated with CD staff on addressing pollution concerns.
- **PIC:** SWRO staff participated in monthly PIC "Poop Smart" meetings and provided updates on compliance activities.

Pollution Identification/Watershed Evaluation

- **Watershed Evaluation:** SWRO staff identified seven NPI sites and conducted three site visits to assess potential pollution sources, provided technical assistance to residents, and referred landowners to Clark Conservation District when appropriate.

Compliance/Technical Assistance Activities

- **Complaint Response:** Staff verified and responded to seven nonpoint concerns submitted through Ecology's reporting system (ERTS).
- **Investigatory collection:** Staff conducted 10 Watershed evaluations.
- **Technical Assistance:** Staff provided ten Technical Assistant letters to landowners identified as having nonpoint concerns identified during Watershed evaluations and through ERTS.

Monitoring Activities

- Staff evaluate Watershed conditions through Watershed evaluations and did not conduct opportunistic sampling during 2024.

Priority Watershed Name: East Fork Lewis River Watershed

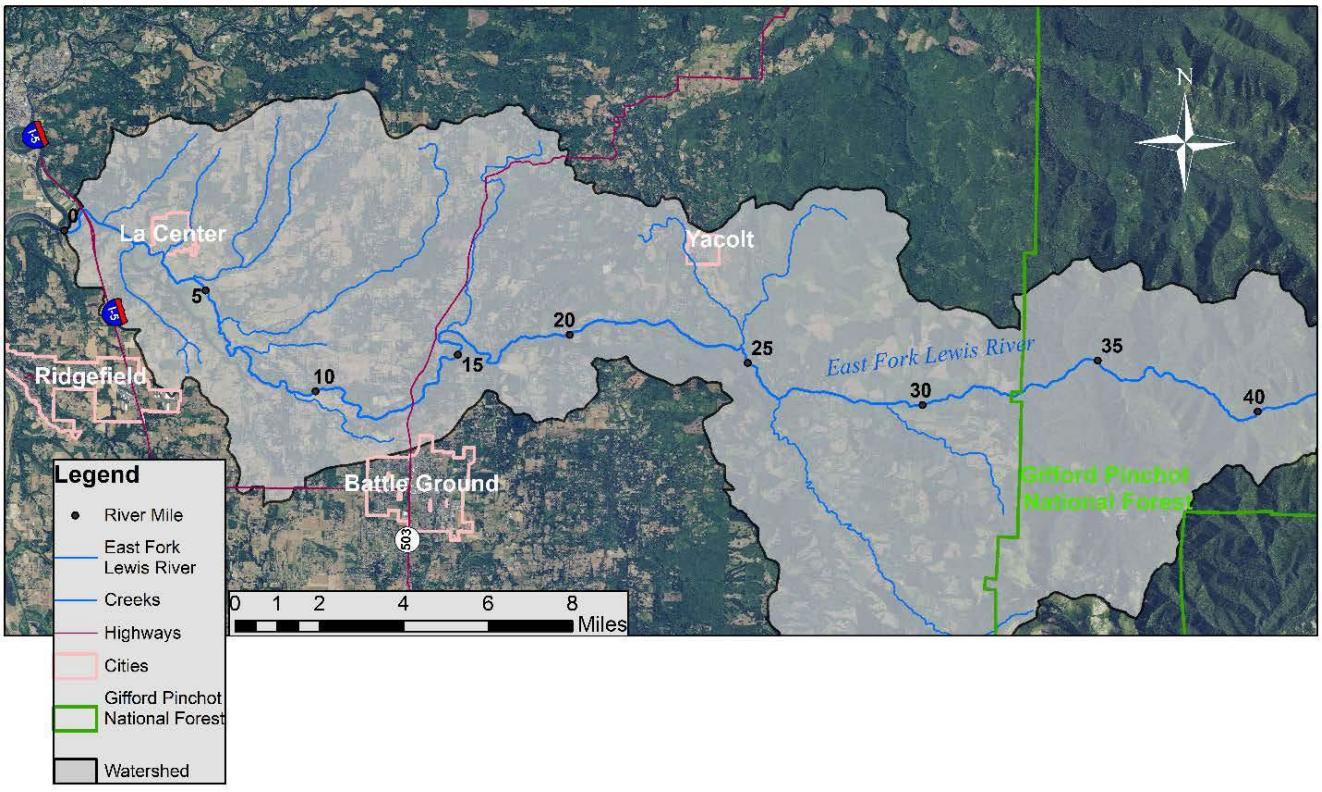

Figure 12. Map of the East Fork Lewis River Watershed

Implementing: East Fork Lewis River Alternative Restoration Plan

Summary/Context Info:

The East Fork Lewis River (EFLR) Alternative Restoration Plan was approved by EPA in 2021 to address temperature and bacteria impairments. The EFLR Watershed is home to both one of the fastest growing cities in Washington State, and five high priority populations of Endangered Species Act (ESA) listed salmon and steelhead. The Watershed provides recreation, timber, agriculture, and water resources for this rapidly growing region of the State. At the same time, the Watershed is key to the recovery of ESA-listed salmon and steelhead that rely on the mainstem and tributaries for critical spawning and rearing habitat. The Poop Smart Clark Pollution Identification and Correction (PIC) group is working collaboratively to identify bacteria sources and to direct resources to problem areas. Stream and habitat restoration projects have been initiated by local non-profit Watershed groups including the reclamation project of nine abandoned pit mines along the East Fork Lewis River. External partners include Clark County Conservation District, Clark Public Utilities, Washington State University Extension, Clark County Public Health, Clark County Clean Water, The Watershed Alliance, and the Lower Columbia Estuary Partnership.

Priority Actions Completed in 2024:

Education and Outreach

- **Public Events:** Ecology coordinated with WSU Extension, Clark County Conservation District, Clark County Public Health, and Clark Public Utilities on water quality workshops and participate in public outreach events.
- **Landowners:** Ecology provided water quality related educational materials to landowners within the Watershed with one site visit by Ecology staff, in addition to site visits conducted by the Clark County Conservation District's Working Lands Program Manager.

Financial Assistance

- **Funding:** In 2022, Ecology funded the initiation of Poop Smart Clark Pollution Identification and Correction (PIC) program in four selected sub-Watersheds addressing livestock and onsite nonpoint pollution concerns. Ecology awarded $666,666.67 to the program. The funding for this initiative is secured through the year 2025.

Partner Coordination

- **East Fork Lewis River Partnership** SWRO staff collaborated and attended annual meetings with Clark County, City of Camas, Washington State Department of Agriculture, Clark Conservation District, and the United State Department of Agriculture's Natural Resource Conservation Service.
- **Conservation District:** SWRO staff attended monthly Clark Conservation District Board Meetings and coordinated with CD staff on addressing pollution concerns.

- **PIC:** SWRO staff participated in monthly PIC "Poop Smart" meetings and provided updates on compliance activities.

Pollution Identification/Watershed Evaluation

- **Watershed Evaluation:** SWRO staff identified seven NPI sites via Watershed evaluations.

Compliance/Technical Assistance Activities

- **Technical Assistance:** Staff provided seven Technical Assistance letters to landowners identified as having nonpoint concerns identified during Watershed evaluations and through ERTS. Staff conducted one site visit to assess potential pollution sources, provided technical assistance to residents, and referred landowners to Clark Conservation District when appropriate.

Monitoring Activities

Investigatory collection: Staff did not conduct investigatory monitoring during this time period.

Northwest Regional Office

The Northwest Region's nonpoint team experienced staff turnover in 2024. The four permanent nonpoint positions remained vacant between June and November 2024. Ecology filled two of the four vacant nonpoint positions in late November 2024. Due to these vacancies, and the time required to onboard new team members, in 2024 Ecology activity in many of the below Watersheds was limited to ERTS response.

Priority Watershed Name: Green-Duwamish River Watershed

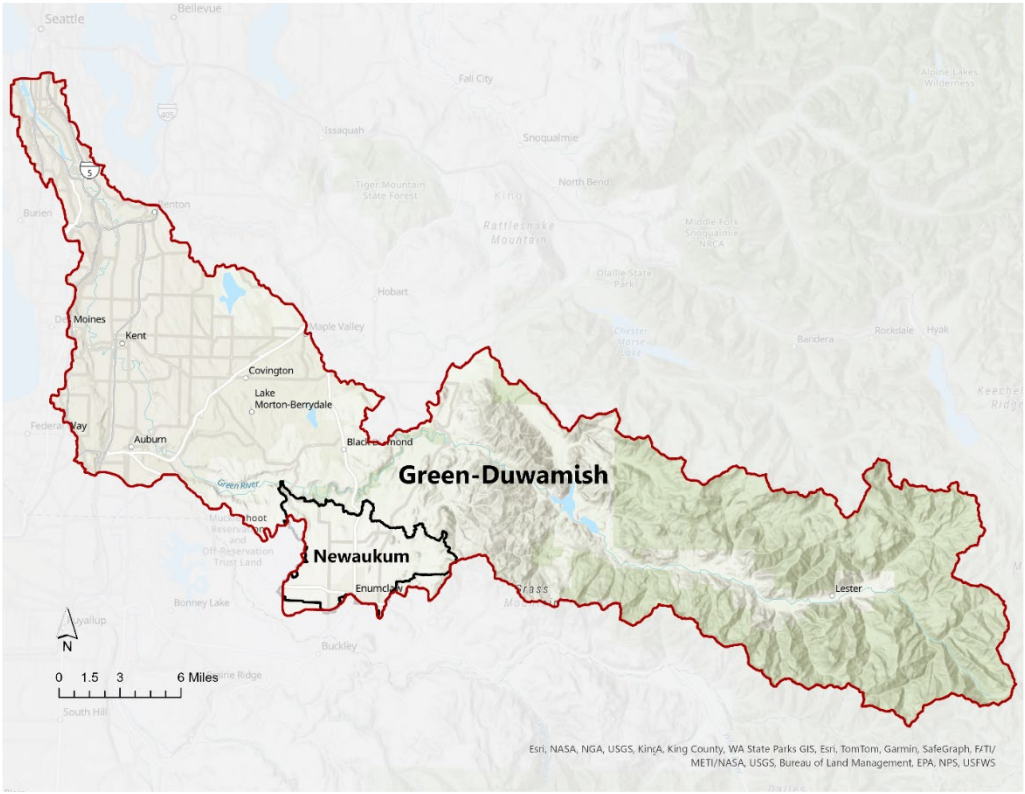

Figure 13. Green River Watershed, including the Newaukum Creek tributary, where nonpoint implementation to improve temperature is a priority

Implementing: Green River Temperature TMDL and the Newaukum Creek Temperature TMDL

Background Summary/Context:

Ecology is actively implementing two TMDLs in the Green River Watershed: the Green River Temperature TMDL (2011) and the Newaukum Creek Temperature TMDL (2011). The TMDL studies found that the lack of adequate riparian vegetation contributes to temperature impairments in these water bodies. TMDL implementation in this Watershed has focused on supporting local implementation partners who focus on improving riparian restoration by removing invasive species and planting native vegetation. Partners engaged in restoration

efforts include King County, King Conservation District, Green River Coalition, City of Kent, Orca Conservancy, and EarthCorps.

Priority Actions Completed in 2024:

Education and Outreach

- Ecology had limited ability to participate in opportunities for education and outreach in this Watershed in 2024 due to both TMDL and nonpoint staff vacancies.
- WQ supervisor held two meetings in fall and winter 2024 with WQ Communications staff to discuss future education and outreach training and material needs to provide to the region's nonpoint team.

Financial Assistance

- Ecology is currently funding three nonpoint grants to support the riparian restoration along the Green River and Newaukum Creek. King County is the project lead on two of these grants and is a collaborating partner with King Conservation District on the third grant. The projects funded with the three Ecology grants will result in approximately 26 acres of restored riparian habitat along the Green and 13.2 acres of restored riparian habitat in Newaukum Creek. The project in Newaukum Creek also provides additional water quality protection via 3,300-ft. exclusion fencing, a water facility, and a heavy use protection area.
- In 2024, Ecology announced the award of an additional grant for riparian restoration along the Green River that is expected to result in riparian buffer restoration along 1,400 linear feet and maintenance of another 8 acres of restored buffer.

Partner Coordination

- NWRO TMDL staff attended regular partner meetings organized by the WRIA 9 Salmon Recovery Group and provided water-quality related technical assistance to participants. The TMDL staff also regularly attend Our Green Duwamish meetings, which are intended to bring together restoration implementation partners to discuss water quality issues and opportunities to improve water quality.

Pollution Identification/Watershed Evaluation

- The nonpoint team conducted one Watershed evaluation in spring 2024, identifying the need for continued technical assistance follow-up and/or enforcement at a beef farm. Water quality concerns at the property have persisted since December 2020, consisting of a lack of vegetated buffer and filter strip between manure sources and water drainages, and the presence of manure within saturated fields that discharges to an agricultural drainage system which then discharges to the Green River.

- Staff vacancies in the late spring resulted in no further Watershed evaluations completed through 2024.

Compliance/Technical Assistance Activities

- Ecology provided limited technical assistance in the Green River Watershed due to limited staff availability. Ecology responded to partner inquiries about future plans with previously mentioned beef farm, however, as of the end of 2024, staff have not made direct contact with the property owners.

Monitoring Activities

- Continuous and grab-sample monitoring of water temperature occurs at several locations along the Green River. These efforts are led by Ecology and its partners, including King County.

Priority Watershed Name: Skagit River and Samish River Watersheds

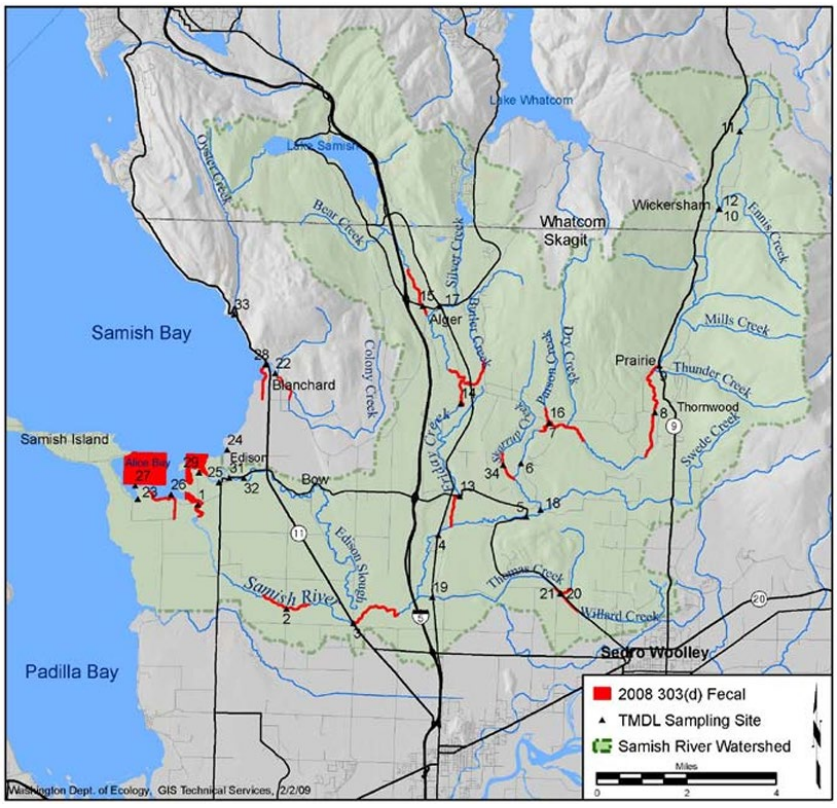

Figure 14. Subbasin map of the Samish River Bacteria TMDL study area

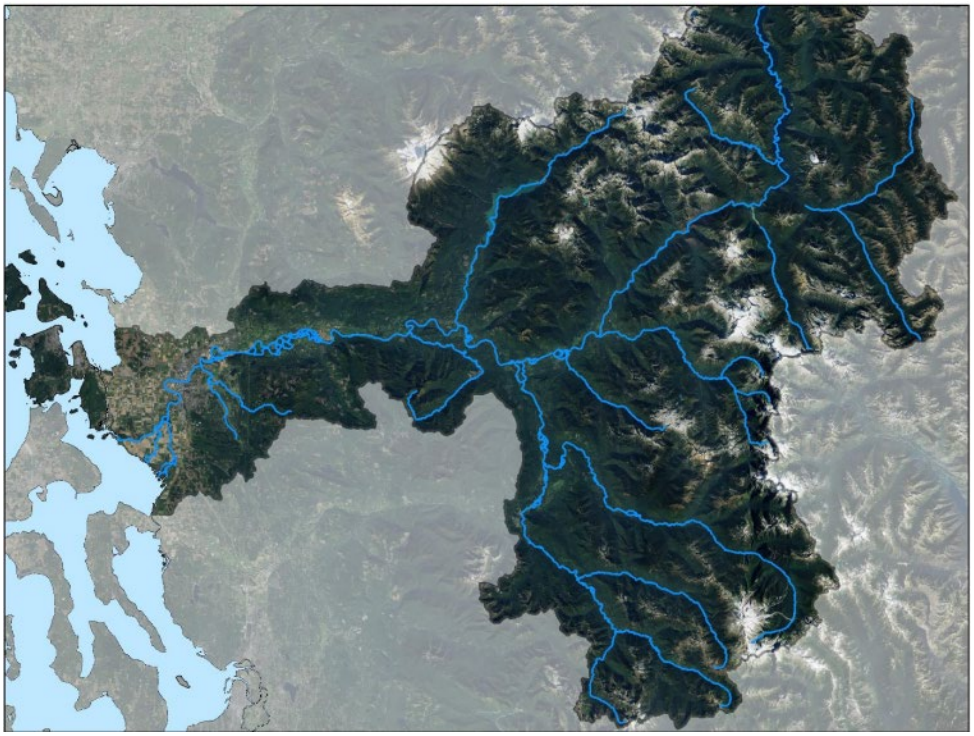

Figure 15. Satellite image overview of the Skagit River system

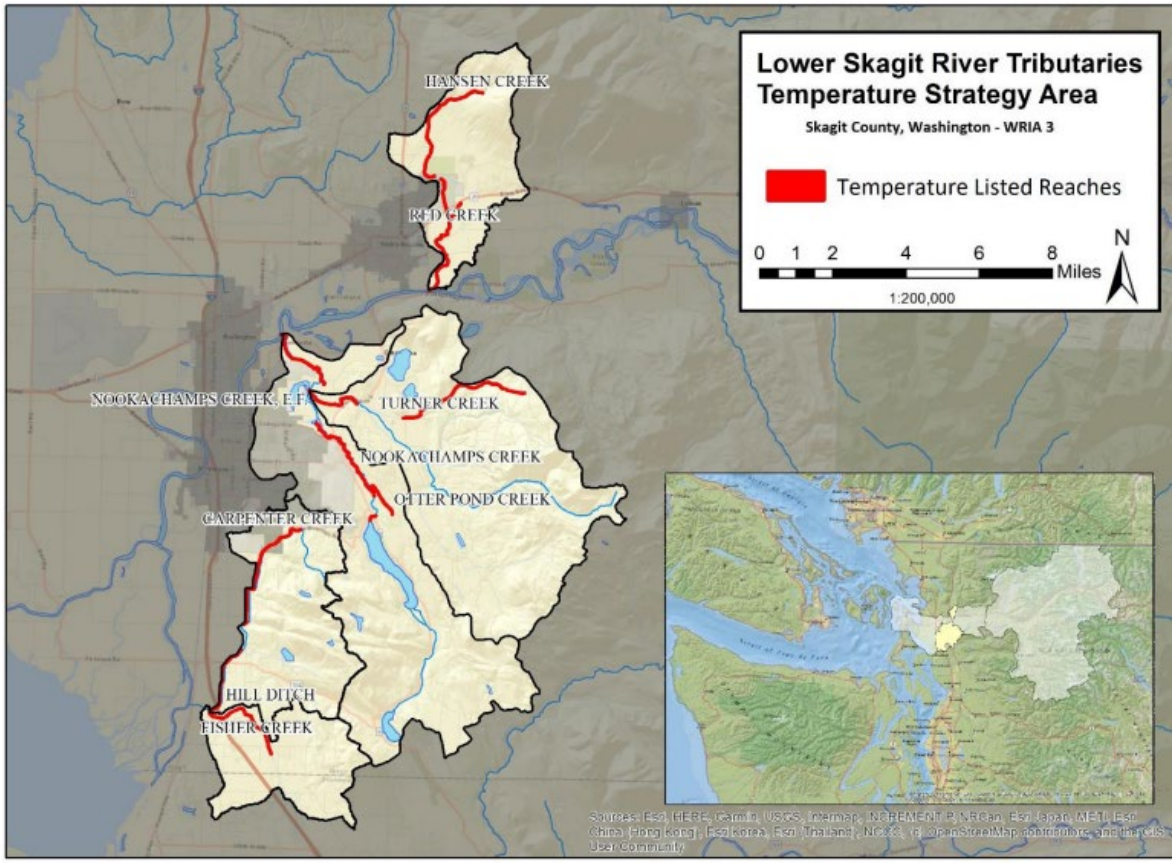

Figure 16. Subbasin map of the Lower Skagit River Temperature TMDL study area

Implementing: Lower Skagit Tributaries Temperature TMDL, Lower Skagit Fecal Coliform TMDL, and Samish Bay Watershed Bacteria TMDL

Summary/Context Info:

Ecology continues to collaborate with local restoration practitioners to support region-driven efforts to increase the pace of riparian restoration in the Lower Skagit Tributaries. The activities are a result of the Lower Skagit Tributaries Temperature TMDL Implementation Strategy developed in coordination with interested parties and implementation partners in 2019.

As the Lower Skagit Tributaries Temperature TMDL is in its implementation phase, there are continued challenges with riparian restoration and voluntary compliance. Nonpoint staff continue to respond to individual properties when risks to water quality are visible from public road right of ways. Technical assistance is provided, and Ecology staff work with local partners (example: Skagit Conservation District) to provided best management practice (BMP) information and financial assistance for installing recommended BMPs. When land use practices continue to cause impairments to water quality without meaningful property owner efforts to correct them, Ecology staff will use various enforcement tools as a backstop to gain compliance.

Priority Actions Completed in 2024:

Education and Outreach

- Nonpoint staff updated a Social Media Toolkit consisting of templates for social media posts related to the benefits of and needs for reducing water temperatures.
- Ecology provided salmon recovery and orca recovery video postcards to partners in the Skagit River Watershed to use during summer outreach and tabling events.
- Ecology had limited ability to participate in opportunities for education and outreach in this Watershed in 2024 due to both TMDL and nonpoint staff vacancies.

Financial Assistance

- Ecology is currently funding three grants to address the impact of nonpoint sources on stream temperatures in the Skagit Watershed. These projects vary in scope from the restoration of 13 acres of wetlands and riparian buffer in Little Carey Creek, to a channel restoration and revegetation of 1.5 riparian acres in the Samish Watershed, or the expansion and maintenance of 34.5 acres of buffer in the Lower Skagit.

Partner Coordination

- TMDL Lead staff participated in technical committees to promote awareness of the Lower Skagit Temperature TMDL, encourage grant applications to Ecology's Combined Funding Program, and prioritize Salmon Recovery Funding Board projects supporting water quality/temperature improvements.
- Nonpoint and TMDL staff met with Skagit County Departments tasked with water quality in the Clean Samish Initiative Executive Committee meeting in July and October of 2024.
- November 19, 2024, the Sauk-Suiattle Tribal representative organized a workshop to build a cross-Watershed temperature database. This was the first successful initiative after was attempted two previous times in 2013 and 2015.
- Ecology staff regularly attended monthly Clean Samish Initiative (CSI) coordination meetings to discuss PIC related topics such as water quality sampling results, hot spot targets for further investigation, and compliance efforts throughout the Watershed.
- Ecology staff attended Skagit County Conservation District Executive Committee meetings to stay updated on CD priorities and conservation initiatives.

Pollution Identification/Watershed Evaluation:

- Due to lack of nonpoint staff during 2024, Ecology did not conduct formal Watershed evaluations in 2024. Rather, nonpoint staff conducted three complaint-driven (ERTS) right-of-way inspections to observe conditions of the subject properties.

Compliance/Technical Assistance Activities

- All three complaint-driven inspections resulted in technical assistance letters and follow-up contact with property owners.
    - **Technical Assistance and landowner communications:**
        - Nonpoint staff continued technical assistance efforts with three properties across the Watershed. Staff sent technical assistance letters to two of the three properties.
    - **Site Visits:**
        - Staff conducted two site visits in the Watershed, one of which consisted of a follow-up inspection to a property with on-going concerns. The second site visit conducted was a multi-agency technical assistance visit in coordination with WDFW, Skagit County Planning and Development Services (PDS).
    - **Compliance Actions:**
        - None taken in 2024
    - **ERTS evaluation and response:**
        - Following the receipt of a technical assistance letter sent in 2023, staff conducted a right-of-way inspection of the site of an ERTS complaint and observed livestock exclusion BMPs along a drainage feature within the property to resolve the complaint.

Monitoring Activities

- Nonpoint/TMDL staff conducted joint Watershed orientation trips with Skagit County staff to identify and discuss sampling needs for new Ecology temperature monitoring sites. Staff conducted follow-up joint-Watershed orientations throughout the year to continue discussions related to temperature and fecal coliform monitoring sites.

Priority Watershed Name: South Skagit Bay

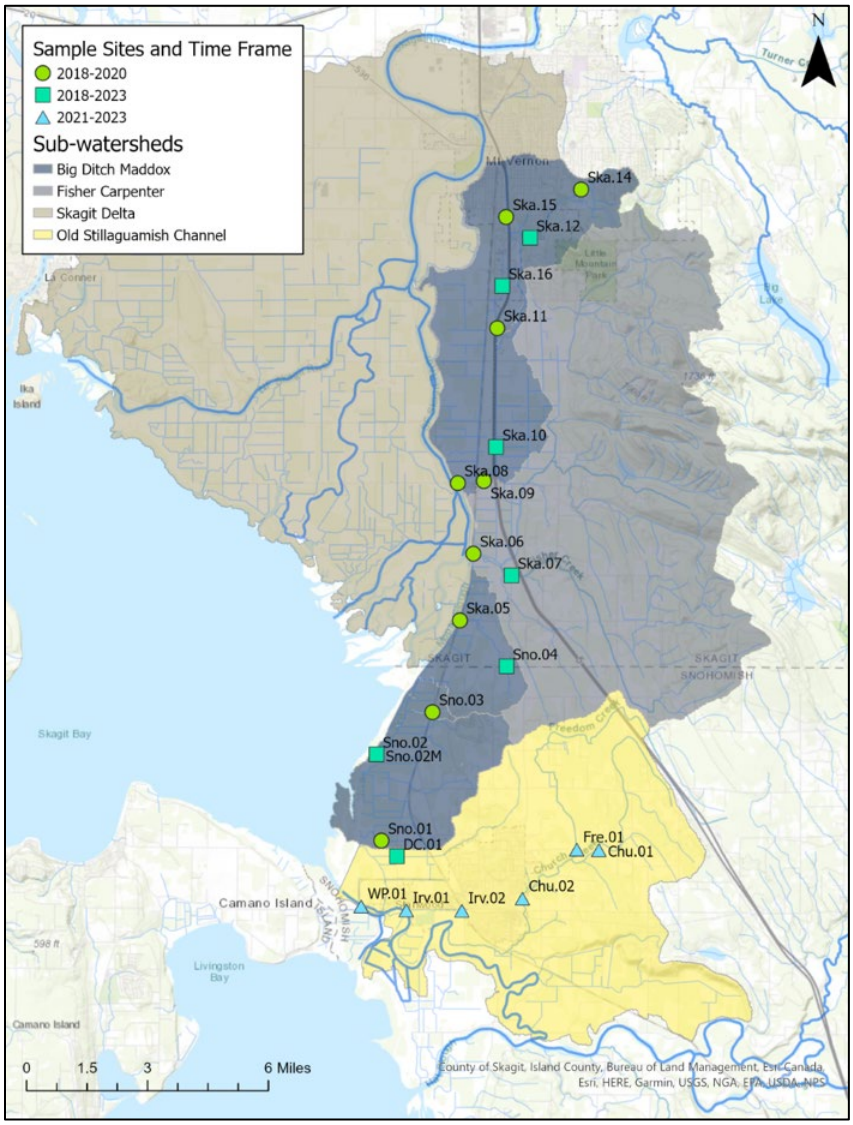

Figure 17. Map of the subwatersheds of South Skagit Bay

Implementing: Stillaguamish River Watershed Multiparameter TMDL, Lower Skagit River Bacteria TMDL

Summary/Context Info:

Shellfish Growing Areas in South Skagit Bay (SSB) were downgraded to “threatened” in 2017 by the Washington Department of Health (Health). To improve water quality in SSB, both Ecology and Health's Shellfish Division identified tributaries to SSB as a priority area for outreach and technical assistance to reduce loading of bacteria to the bay. Ecology developed and performed a bacteria monitoring and nonpoint source identification assessment aimed to identify

potential sources of fecal coliform bacteria from SSB's sub-Watersheds, in support of the Washington Shellfish Initiative.

Priority Actions Completed in 2024:

Education and Outreach

- Ecology staff developed a draft online data summary and map of the assessment findings to be distributed to the public via a final postcard mailer, in development through 2025.

Financial Assistance

- Ecology provided limited new financial assistance apart from administrative support for ongoing projects.

Partner Coordination

- Ecology staff coordinated with the City of Mount Vernon, Skagit County Public Works and EPA to identify sources contributing to the pollution concerns identified by the South Skagit Bay assessment's source tracing efforts.
- TMDL Lead and nonpoint staff participated in technical committees to promote awareness of the Stillaguamish Multiparameter and Lower Skagit Bacteria TMDLs, encourage grant applications to Ecology's Combined Funding Program, and prioritize Salmon Recovery Funding Board projects supporting water quality improvements.
- Local government partners, like Snohomish County and Skagit County, facilitate the pollution identification and correction work in the Watershed. TMDL Lead and nonpoint staff attended local Stillaguamish and Skagit PIC meetings and assisted with PIC-related inquiries.

Pollution Identification/Watershed Evaluation

- Ecology conducted Watershed evaluations in January and March 2024, consisting of follow-up evaluations of properties identified in evaluations conducted in 2022 and 2023. These evaluations focused on monitoring site conditions at two properties with water quality concerns related to livestock access to seasonal drainage ditches that flow to Douglas Creek, and manure storage practices.
- Staff vacancies in spring 2024 resulted in no further evaluations conducted in 2024.

Compliance/Technical Assistance Activities

- **Technical Assistance and landowner communications**:

    - Ecology did not receive responses from two TA letters issued in late 2023, which prompted continued attempts to contact the landowner in early 2024.
    - Staff issued one TA letter to a Douglas Creek property that did not provide a response to Ecology.
- **Site Visits:**
    - Staff conducted two right-of-way inspections to properties identified as needing technical assistance. An inspection conducted in May 2024 confirmed an illicit discharge to Snohomish County's Municipal Separate Storm Sewer System (MS4).
- **Compliance Actions**:
    - None taken during 2024; however, Ecology may coordinate enforcement actions with Snohomish County related to illicit MS4 discharges.
- **ERTS evaluation and response**:
    - No ERTS received for this Watershed during 2024, however Watershed partner groups informed Ecology of long-standing ERTS that they requested reinitiating when staff capacity allows.

Monitoring Activities

- Ecology collected monthly bacteria grab samples at one location in the lower Skagit River as part of a routine fecal coliform sampling program managed by Skagit County.
- Ecology conducted joint sampling events with the Stillaguamish Tribe Water Resources team in Douglas Creek sub-basin to support source tracking efforts for fecal bacteria sources. These efforts helped identify compliance concerns for two properties of concern in the Watershed.

Priority Watershed Name: Snohomish River Watershed

Figure 18. Map of Snohomish River Watershed with Pilchuck River Watershed highlighted

Implementing: Snohomish River Tributaries Fecal Coliform TMDL

Summary/Context Info:

Staff vacancies and capacity limited nonpoint efforts in the Watershed to complaint response as received via ERTS. Implementation in this Watershed has focused on supporting implementation partners with addressing bacteria run-off from livestock and riparian restoration by removing invasive species and planting native vegetation.

Priority Actions Completed in 2024:

Education and Outreach

- Ecology TMDL Lead staff published a focus sheet explaining the relationship between nutrient pollution and the occurrence of blue-green algae in lower French Creek and recommending BMP implementation to reduce the risk of algal blooms. Staff participated in an interview with a local newspaper to discuss the focus sheet and promote BMPs.

- Ecology updated the French Creek Watershed website[9], issued a blog post[10] on the causes and potential fixes for water pollution and discoloration, and produced a focus sheet[11] for the on-going study.

Financial Assistance

- Ecology has funded several grants that support the restoration of riparian buffers and instream habitat in the tributaries of the Snohomish River. The projects that Ecology is currently funding will result in more than 15 acres of planted riparian buffer in the Skykomish subbasin, over 3,000 linear feet of buffer being restored in the Snoqualmie subbasin, and over 23 acres of buffer planted in the lower tributaries of the Snohomish. Some of the projects also restore instream habitat by installing large woody debris to increase habitat complexity. Ecology is funding an additional grant in the Snohomish and the neighboring Stillaguamish Watershed to reduce nutrient loadings from commercial agricultural land.
- Ecology nonpoint staff attended the Snohomish Basin Salmon Recovery Forum[12] meetings to participate in discussions related to the ongoing implementation of the Snohomish River Basin Salmon Conservation Plan[13].

Partner Coordination

- TMDL Lead and nonpoint staff participated in technical committees to promote awareness of several TMDLs within the Snohomish Watershed, solicit feedback on prospective projects within the Snohomish Watershed, encourage grant applications to Ecology's Combined Funding Program, and prioritize Salmon Recovery Funding Board projects supporting water quality improvements.

- TMDL Lead staff conducted outreach to basin partners for the French Creek project (see the outreach and education section above).

Pollution Identification/Watershed Evaluation

- Nonpoint staff conducted Watershed evaluations in April and May 2024 and follow-up right-of-way observations in January and March 2024. Each evaluation consisted of

[9] https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process/Directory-of-improvement-projects/French-Creek-Pilchuck-Watersheds
[10] https://ecology.wa.gov/blog/september-2024/investigating-the-french-creek-orange-water-mystery
[11] https://apps.ecology.wa.gov/publications/SummaryPages/2410021.html
[12] https://snohomishcountywa.gov/3828/Forum
[13] https://snohomishcountywa.gov/ArchiveCenter/ViewFile/Item/2153

follow-up observations of properties with on-going technical assistance efforts. No additional sites were identified during these evaluations.

- Ecology identified five properties needing on-going technical assistance. The water quality concerns identified related to livestock access to on-site surface waters or livestock overuse on pastures resulting in exposed and erodible soils.

Compliance/Technical Assistance Activities

- **Technical Assistance and landowner communications:**
  - Ecology issued four TA letters to four properties with observed water quality concerns. One property did not respond directly to Ecology but nonpoint staff were informed of a successful connection made between the property and the Snohomish Conservation District. A second property responded to Ecology and committed to implementing the recommended corrective actions.
- **Site Visits:**
  - Staff conducted four right-of-way inspections throughout the year to monitor land use conditions at five properties within the Watershed.
  - Staff conducted one joint site visit with Snohomish County CD to discussed enhancing an existing vegetation buffer.
- **Compliance Actions:**
  - None taken in 2024
- **ERTS evaluation and response**
  - Staff received and responded to one ERTS related to a livestock grazing property that resulted in a successful Snohomish CD connection.

Monitoring Activities

- Continuous and grab-sample monitoring for bacteria, dissolved oxygen, and/or temperature occurred at numerous locations throughout the Snohomish Watershed. These sampling efforts were led by Ecology and partners, including Snohomish County and the City of Monroe, as part of ongoing ambient water quality monitoring work.

Priority Watershed Names: Nooksack River, Lake Whatcom, and Whatcom Creek Watersheds

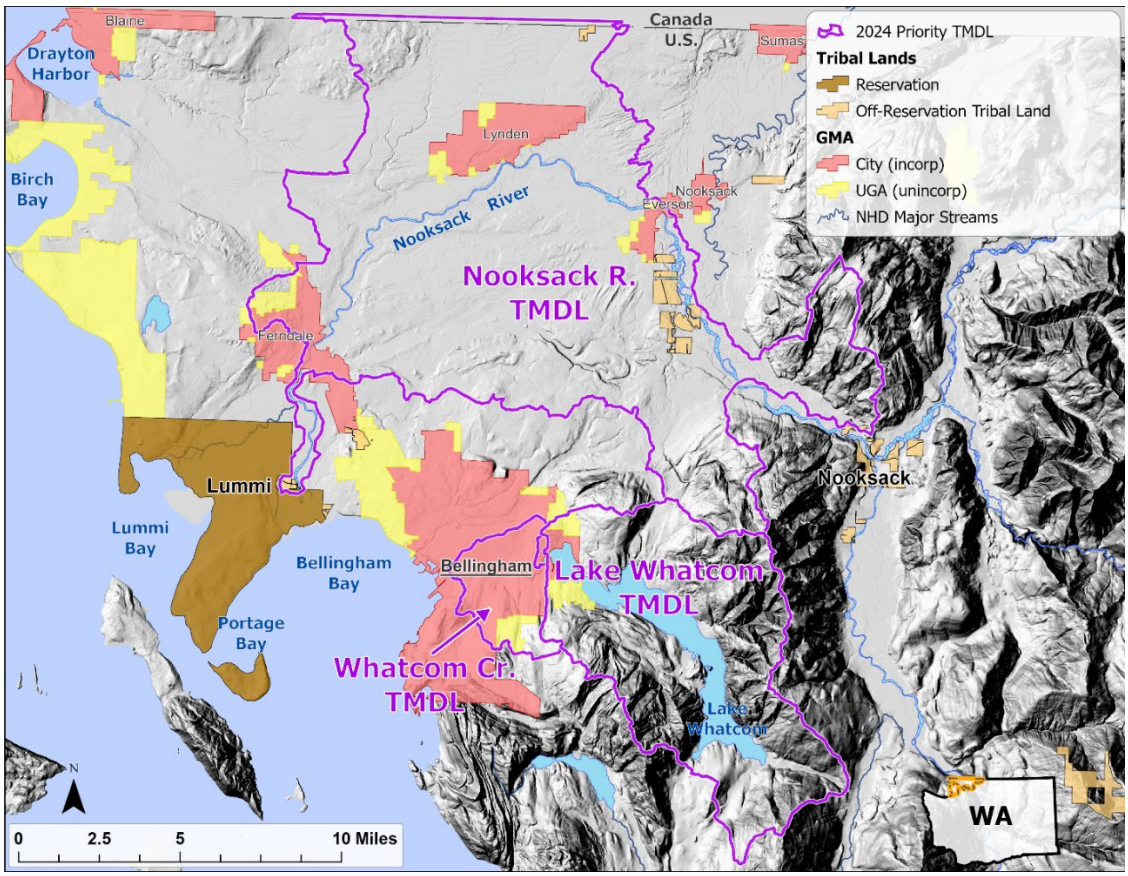

Figure 19. Overview map of Whatcom County Watersheds, TMDLs, and Shellfish Growing Areas

Implementing: Nooksack River Bacteria TMDL (2000), Whatcom Creek Bacteria TMDL (2023), and Lake Whatcom Multi-parameter TMDL (2016).

Summary/Context Info:

TMDL staff will continue to facilitate implementation of the Lake Whatcom Multi-parameter TMDL (2016), Nooksack River Bacteria TMDL (2000) and Whatcom Creek Bacteria TMDL (2023). Non-point Watershed evaluations and enforcement efforts were limited to complaint response and partnership collaboration in this Watershed due to lack of staff and resources.

Priority Actions Completed in 2024:

Education and Outreach

- **Lake Whatcom:** Ecology routinely conversed with the public about water quality, land use, the TMDL, and steps and processes that protect water quality. Ecology participated in media interviews and university student projects about the lake and ways to protect and improve water quality.
- **Nooksack River:** Ecology met with the local salmon enhancement group — Nooksack Salmon Enhancement Association — to discuss TMDLs and water quality improvement projects. Ecology presented at the NEIWPCC (New England Interstate Water Pollution Control Commission) TMDL forum about the SF Nooksack River TMDL.

Financial Assistance

- Ecology funded two grants in the Nooksack Watershed. One of the grants funds the planting and maintenance of 96 acres of riparian buffer while the second grant funds the planting of 11.6 acres of riparian buffer and installation of instream structures.

Partner Coordination

- Ecology routinely coordinates data sharing, Watershed evaluations, and PIC duties with the local partners in the Whatcom Clean Water Program (CWP).
- Ecology attends bi-weekly field staff meetings that consisting of Ecology, Whatcom County Conservation District (CD), and Whatcom County Public Works, staff to discuss new and on-going technical/financial assistance efforts to protect Shellfish Growing Areas in the Watershed.

Pollution Identification/Watershed Evaluation

- In collaboration with Whatcom CWP in early 2024, Ecology conducted 3 Watershed evaluations to observe site conditions of five previously identified properties of concern. Ecology identified no new sites during these evaluations.
- A Wiser Lake Creek property observed during the January evaluation completed voluntary corrective actions to exclude their livestock from accessing on-site surface waters. Whatcom CWP removed this property as a technical assistance priority.
- Nonpoint staff conducted two right-of-way inspections to a Swift Creek property to monitor site conditions after receiving no responses from technical assistance letters issued in 2022 and 2023. These inspections have found that all livestock have been removed from the property, therefore future monitoring will be limited to coincidental visits.
- Following staff vacancies in spring 2024, Ecology did not conduct further Watershed evaluations.

Compliance/Technical Assistance Activities

- Technical Assistance and landowner communications
    - Staff issued three TA letters to three properties with water quality concerns in 2024 and collaborated with Whatcom CWP staff to issue a joint letter to one of the three properties.
- **Site Visits**:
    - Staff conducted three right-of-way inspections and one on-site visit during the reporting period.
- **Compliance Actions**:
    - Ecology issued no formal compliance actions issued in 2024.
    - Staff will continue to work with Whatcom CWP partners to routinely observe two properties with partially addressed water quality concerns.
- **ERTS evaluation and response**:
    - Staff continued to receive and evaluate agricultural and non-agricultural related ERTS or complaint referrals from the public and Watershed partners.
- Following staff vacancies in spring 2024, Ecology provided limited technical assistance to properties in the Watershed.

Monitoring Activities

- On a monthly basis, Ecology's Ambient Monitoring Program sampled the Nooksack River at two locations and completed two years of monitoring as part of the rotating Basin Stations on two tributaries to the river including Tenmile Creek and Fishtrap Creek. Ecology maintains and operates a continuous streamflow gage on Bertrand Creek (01N060[14]).

[14] https://apps.ecology.wa.gov/continuousflowandwq/StationDetails?sta=01N060

Priority Watershed Name: Drayton Harbor Tributaries

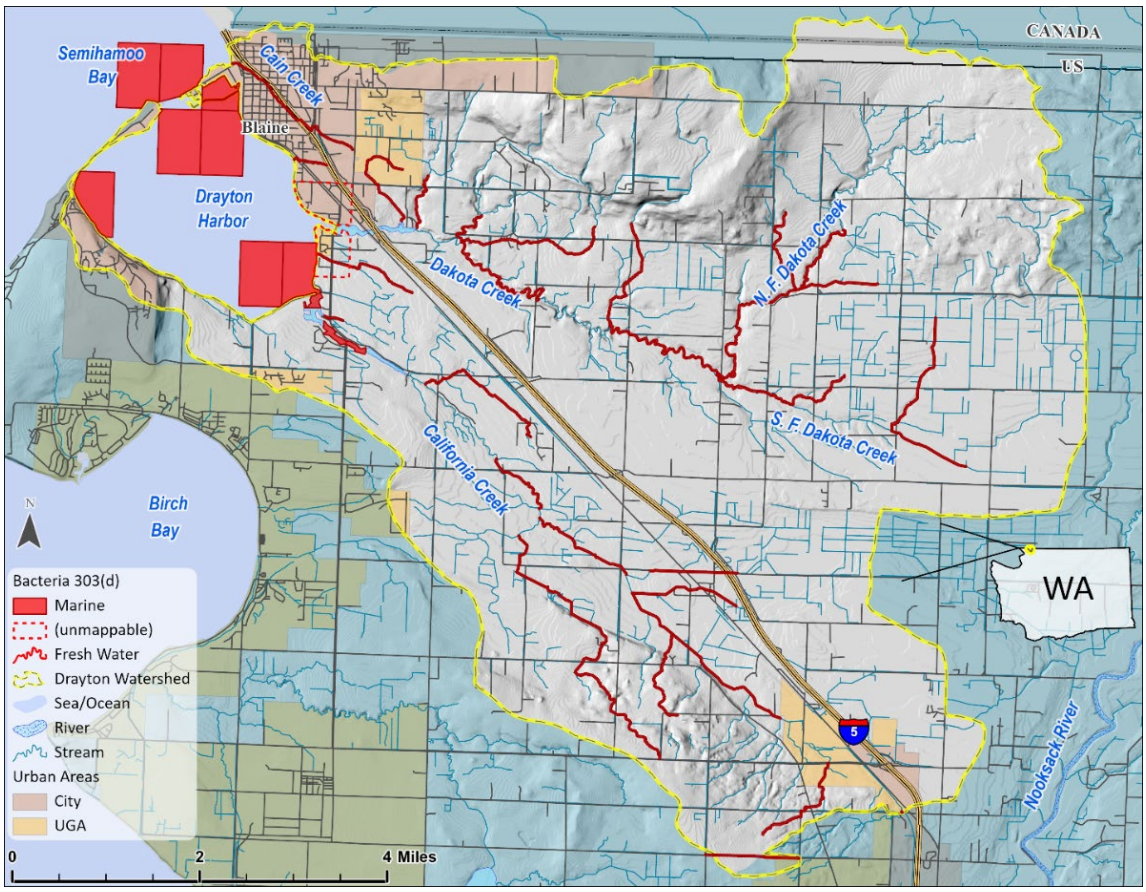

Figure 20. Overview map of Drayton Harbor Watershed and major tributaries

Implementing: Shellfish Growing Area PIC Programs and Drayton Harbor Bacteria TMDL Activities

Summary/Context Info:

In 1988, Washington Department of Health (DOH) began closing the shellfish growing areas in Drayton Harbor based on a trend of deteriorating water quality. The closures ultimately resulted in the entire harbor being closed for harvest by 1999. In 2004, DOH upgraded the status of 575 acres in the central harbor from Prohibited to Conditionally Approved. Two additional upgrades to Approved for commercial harvest occurred in 2016 and 2019 for a total of 1,575 acres. In 2016, 810 acres of shellfish beds were upgraded followed by the most recent in 2019, which comprised an additional 765 acres.

The work of project partners demonstrates the efficacy of pollution control actions; however, freshwater tributaries currently do not meet the contact recreation water quality standard (WQS) and as a result, certain marine grids also do not meet the WQS for shellfish harvesting. The annual shellfish growing area review for 2021 reclassified 695 acres from Approved to

Conditionally Approved. This new Conditionally Approved area is closed annually from November 1 through January 31. An additional 450 acres were changed from unclassified to Prohibited due to poor water quality. In 2022, 42 acres were downgraded from approved to conditionally approved. Water quality issues continue to be a concern for Drayton Harbor, and our nonpoint staff continue to respond to citizen complaints and visual cues from windshield surveys and provide technical assistance to reduce fecal coliform pollution in Drayton Harbor tributaries.

Priority Actions Completed in 2024

Education and Outreach

- Ecology attended Seafest in Blaine, WA and collaborated with Whatcom County and Whatcom CD to share table duties while interacting with the public about water quality-related topics.

Financial Assistance

- Ecology staff communicated about financial assistance opportunities available through Ecology's Water Quality Combined Funding program.

Partner Coordination

- Whatcom Clean Water Program (WCWP): WCWP partners — including Ecology TMDL lead and Nonpoint staff — coordinated to identify areas with elevated bacteria levels and where there are follow up pollution source control measures needed. Water quality data collected in partnership are available through an interactive online map[15] administered by the Whatcom Conservation District (WCD).
- The WCWP met as needed and routinely through Field Staff meetings, held approximately three times per month, and Data Team meetings, held approximately once a month. Managers of nonpoint field staff (referred to as PIC Managers) met monthly during the later half of 2024 to orient new team members to program procedures and discuss high-priority sites needing technical assistance.
- Ecology participated in a WCWP retreat hosted by the Department of Health in June 2024. The event introduced new and existing field staff and managers to the program and facilitated a shared understanding of the program mission, partner roles, challenges, achievements, and opportunities for continued program success.

[15] https://www.whatcomcounty.us/2618/Interactive-Water-Quality-Maps

- Quarterly meetings with shellfish advisory committees: TMDL Leads and Nonpoint staff participated in Drayton Harbor Shellfish Protection District meetings and events.

Pollution Identification/Watershed Evaluation

- Nonpoint staff prioritized three properties with livestock access for technical assistance follow-ups in coordination with WCWP. In spring 2024, Watershed evaluations occurred routinely throughout the Watershed to observe previously identified properties under various conditions and inform how WCWP staff prioritize contacting property owners.
- Staff vacancies in spring 2024 limited further Watershed evaluations.

Compliance/Technical Assistance Activities

- Ecology issued a technical assistance letter to a Drayton Harbor property that previously received three other letters from Ecology. Ecology did not receive a response from the 2024 letter, and WCWP has noted the site as a site to continue monitoring and prioritize as necessary based on future findings.
- A Birch Bay property identified in 2021 received a technical assistance letter from Ecology in 2022 and has been routinely monitored during Watershed evaluations in 2023 and 2024. The property has implemented voluntary corrective actions to prevent stormwater run-off from their barn roofs from contacting manure in their fields and constructed a French drain that outlets to a roadside ditch. WCWP has prioritized this site for continued monitoring and a potential site visit.

Monitoring Activities

- Ecology's Ambient Monitoring Program, through the rotating Basin Stations began collecting water quality data on Dakota Creek and continue to maintain a continuous streamflow gage at this same location (01Q070[16]).
- WCWP routinely conducts R-Card and lab-analyzed fecal bacteria sampling throughout the Watershed both as joint and coordinated sampling events as needed for source tracing.

[16] https://apps.ecology.wa.gov/ContinuousFlowAndWQ/StationDetails?sta=01Q070

Central Regional Office

Priority Watershed Name: Granger Drain

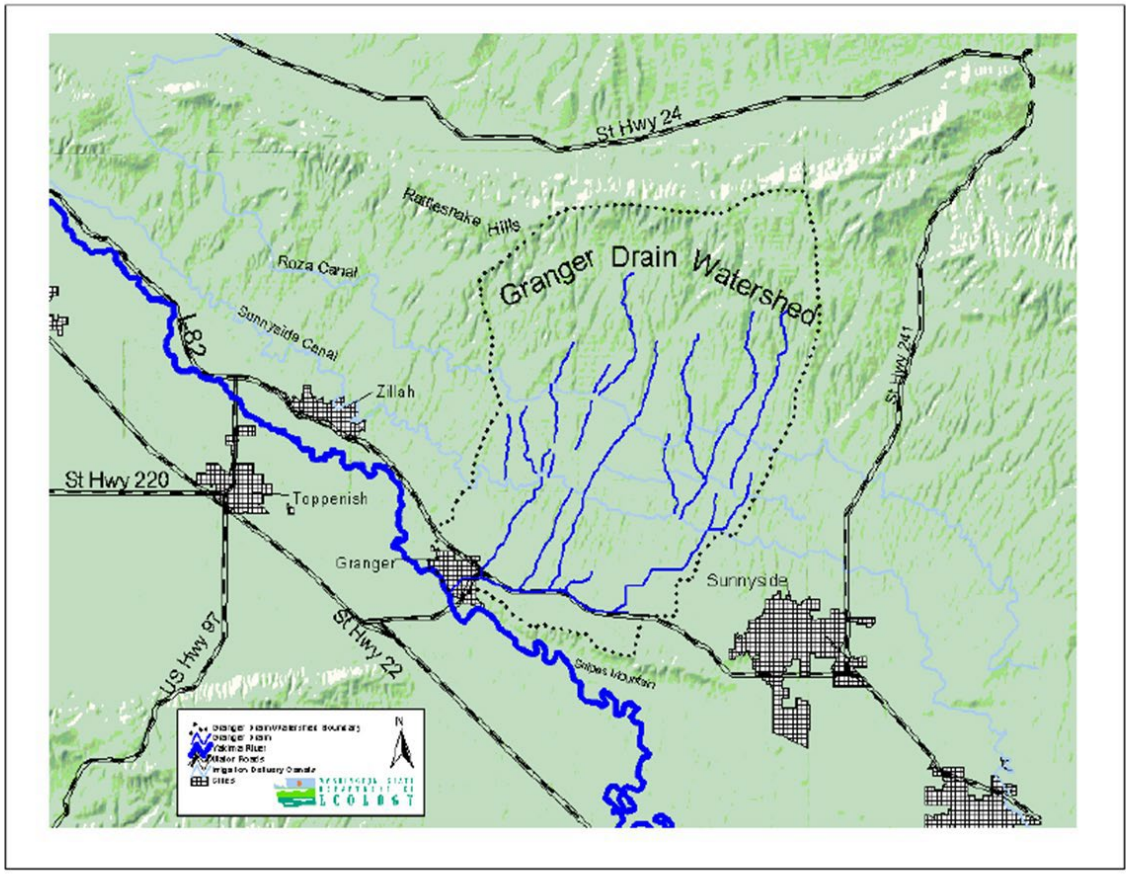

Figure 21. Map of the Granger Drain Watershed

Implementing: Granger Drain Fecal Coliform Bacteria Total Maximum Daily Load and the Lower Yakima River Suspended Sediment TMDL.

Summary/Context Info:

The Granger Drain Fecal Coliform Bacteria Total Maximum Daily Load set final fecal coliform (FC) targets for the Watershed based on the *Water Quality Standards for Surface Waters of the State of Washington* (Chapter 173-201A WAC). At the time there were two Class A criteria for FC bacteria. The first criterion sets a maximum density of bacteria measured in colony forming units (CFU) for the geometric mean criteria not to exceed 100 cfu/100 mL. The second criterion sets a maximum density of bacteria at the 90th percentile not to exceed 200 cfu/100 mL. Of the Washington 319 Annual Report Page 66 May 2024 two criteria, the 90th percentile criterion is typically the most difficult to comply with, as it represents infrequent high bacterial densities. Based on FC reductions obtained since 1992, the *Granger Drain TMDL* is nearing the interim

90th percentile target of 510 cfu/100 mL and a final 90th percentile target of 200 cfu/100 mL (water quality standards). It is against these interim and final TMDL targets and the current water quality criteria for *E. coli* that future TMDL compliance will be measured for both the mainstem Granger Drain and the Sunnyside Valley Irrigation District (SVID) irrigation supply canal.

Within the Granger Drain Watershed, the Roza/Sunnyside Board of Joint Control (RSBOJC) has coordinated and collaborated extensively with Ecology nonpoint staff to implement the TMDLs in this area. As RSBOJC leads water quality monitoring and pollution identification and correction, this Watershed is no longer a focal Watershed for nonpoint staff, though we will continue to provide a regulatory backstop, as needed. In this and future annual reports, we will discuss the activities undertaken in Granger Drain, in partnership with RSBOJC, in section 3.3: Develop and Strengthen Partnerships.

Priority Watershed Name: White Salmon River (WRIA 29)

Figure 22. Map of the White Salmon River Watershed

Developing and Implementing: Advanced Restoration Plan (bacteria impairments)

Summary/Context Info:

Ecology is working on a water cleanup project for the White Salmon Watershed to address identified water quality impairments for bacteria. Locals in the Watershed greeted Ecology's entrance into the Watershed with interest and support.

Ecology's Environmental Assessment Program completed two years of sampling in October 2024. The data is being processed, and a data summary report is expected mid-year in 2025. The project consisted of bacteria samples collected twice a month from sites throughout the White Salmon Watershed. With the completion of the data summary report this project will move to complete the Advance Restoration Plan and move to implementation.

Priority Actions Completed in 2024:

Education and Outreach

- In 2024 Ecology staff continued to work with the US Forest Service (USFS) on outreach to the recreational boaters. Ecology staff worked with the USFS staff to have water quality information included in the 2024 USFS recreational boating permit (USFS annual recreational boater permit for the Wild and Scenic River segment).
- Ecology staff continued working with Underwood Conservation District, Mid-Columbia Fisheries, and the Yakama Nation on an educational project for the local school district addressing stream health for stream on school property.
- Ecology staff continued to work with local health jurisdictions to conduct outreach and education relating to the environmental impacts of failing septic systems, how this affects the White Salmon Watershed, and outline financial assistance resources available for septic system installation, repair, or replacement.

Financial Assistance

- Underwood Conservation District used fiscal year 2025 grant funding from Ecology's Water Quality Program to implement water quality improvement projects in the White Salmon Watershed. This included bacteria sampling projects, riparian restoration plantings, livestock exclusion, technical assistance, planning efforts, including a solids/liquid separation system and solids storage pad at a dairy, and education around riparian stewardship.
- Columbia Land Trust received Ecology funding to assist with a land acquisition and riparian protection project in a relatively pristine, forested portion of Rattlesnake Creek. This tributary of the White Salmon has 303(d) listings for bacteria as well as temperature.

Partner Coordination

- Ecology Water Quality staff coordinated with the U.S. Forest Service, Underwood Conservation District, Columbia Land Trust, Yakama Nation, Klickitat County Health

District, Friends of the White Salmon, Mid-Columbia Fisheries, USGS, and Trout Lake city council.

Pollution Identification/Watershed Evaluation:

- Ecology coordinated with the local CD on bacteria sampling and filling in data gaps, while preparing the White Salmon Bacteria cleanup plan.
- Data collected by Ecology's Environmental Assessment Program (EAP) in 2024 will be used to identify reaches within the Watershed where additional sampling and source tracking may be helpful in identifying polluting inputs, in tandem with visual Watershed evaluations.
- Ecology made monthly field visits to the White Salmon Watershed for pollution identification work.

Compliance/Technical Assistance Activities

- Community reports of water quality concerns in 2024 were entered into the ERTS database and followed up on by CRO nonpoint staff.

Monitoring Activities

- Ecology's Environmental Assessment Program (EAP) completed field sampling for a bacteria loading study in the White Salmon Watershed spanning 2022-2024. This study will reference the current WQ bacteria standard for E. coli.
- Underwood Conservation District continued conducting monitoring for bacteria and other WQ parameters in the White Salmon Watershed.

Priority Watershed Name: Bonaparte Creek

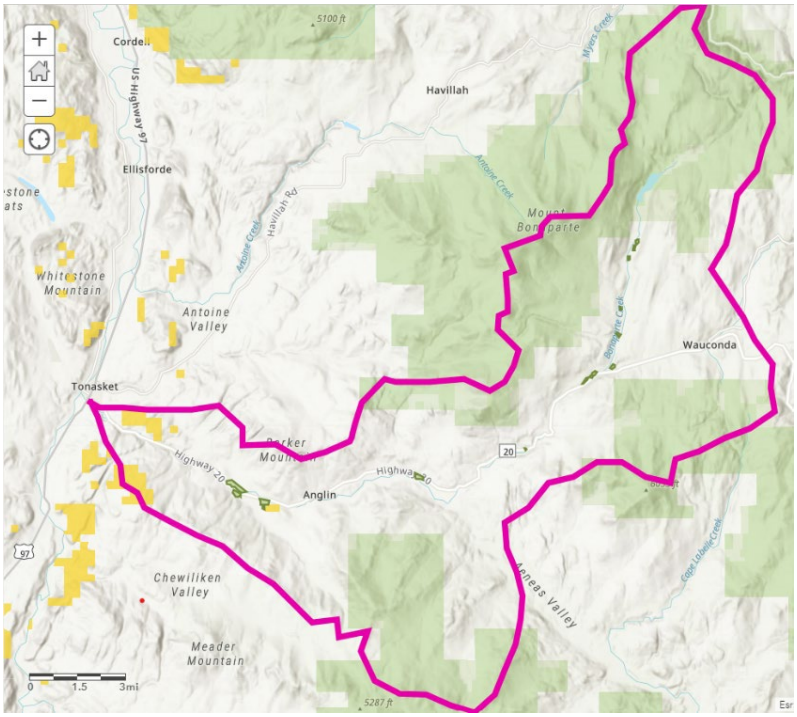

Figure 23. Map of the Bonaparte Creek Watershed

Implementing: Bonaparte Creek Straight to Implementation project (in development).

Summary/Context Info:

We are developing a Straight to Implementation (STI) project for the Bonaparte Creek, a tributary of the Okanogan River in north central Washington. Bonaparte Creek enters the Okanogan River at the town of Tonasket, and drains an area of about 150 square miles, or 100,000 acres. Land use in the Watershed includes vacation homes, hobby farms/ranches, timber harvest, and cattle ranching.

The Bonaparte sub basin contains only nonpoint sources of pollution. No new point sources that would discharge the pollutant being addressed by the proposed STI are anticipated in the Watershed. Historic impairments are recorded for fecal coliform, temperature, and pH. This STI will address bacteria only. The draft is nearing completion with the addition of specific numbers and sizes of BMPs to be added.

Priority Actions Completed in 2024:

Education and Outreach

- Ecology staff partnered with the Okanogan Conservation District and other involved groups for outreach to middle and high school programs in 2024. Our goal is to educate

residents across the Okanogan basin about water quality issues and build support and understanding for the work we will be proposing along Bonaparte Creek and other tributaries to the Okanogan as well as local lakes.
- Ecology attended Okanogan Conservation District's 2024 Conservation Celebration to meet and coordinate with partners and residents in the Okanogan Watersheds.
- Ecology staff met with the Bonaparte sub basin members of the Washington Cattlemen's Association. About 23 residents attended the meeting, along with Okanogan CD staff. We shared that we would be working on education and voluntary compliance and prioritizing willing landowners. Owners of sites with obvious damage to riparian areas will have opportunities to correct problems but we do have the ability to enforce clean water standards, and we will utilize our enforcement authorities when voluntary compliance is unsuccessful.

Financial Assistance

- Ecology staff met with the Okanogan Health Department to encourage them to apply for support to conduct a septic maintenance outreach program. We connected them to our onsite septic program and encouraged them to apply for pass-through funding for septic upgrades
- Ecology staff met with the Okanogan Conservation District staff to review past grant projects and encourage them to apply for additional grant funded projects.

Partner Coordination

- Attended meetings with the Okanogan Conservation District and Okanogan Health District in person or online as time allowed. Gave additional feedback about our proposed work as requested. Brainstormed methods for future outreach.
- Followed Conservation District activities through newsletters and meeting minutes.
- Attended a tour of Ecology funded restoration projects in the Bonaparte and other Okanogan River sub-basins hosted by the CD. This provided an opportunity to meet additional local landowners and hear about their hopes or concerns.
- Followed activities of Health Department.
- Ecology staff met with Washington Department of Fish & Wildlife and Department of Natural Resources staff to discuss opportunities to partner and coordinate on water quality education and messaging.
- Ecology staff connected with City of Tonasket and learned that the municipal sewer was extended into the neighborhood adjacent to the lower Bonaparte Creek Watershed.

Pollution Identification/Watershed Evaluation:

- Evaluated sources of nonpoint pollution by coordinating with Ecology's Environmental Assessment Program and considering alternative sampling strategies to gather regular bacteria samples.

- Staff visited the Bonaparte Creek Watershed surveying land uses on the ground to estimate potential or likely nonpoint pollution sources.

Compliance/Technical Assistance Activities

- Preliminary Watershed evaluations and surveys have found specific needs for compliance or technical assistance to landowners or land managers. Bonaparte Creek borders or intersects about 100 properties. Only a handful of sites show current damage from livestock. Many properties have fencing to prevent livestock access to the water. However riparian buffers are absent for about 40% of the stream length, and do not meet best practice standards in another 40%.
- Between three and five first technical assistance contact letters will be sent in 2025.
- An open house/workshop is planned for 2025 to begin public education regarding water pollution and residents' role in protecting shared water bodies.

Monitoring Activities

- A visual assessment was planned for winter/spring 2025 under the assumption more cattle would be in pastures and paddocks on the valley floor and thus near Bonaparte Creek. The goal is to sort locations where cattle and other livestock are present from those we thought may be used by livestock (due to aerial photos or absence of forage) but none were physically present during prior Watershed visits.
- No current water quality monitoring by Ecology is underway, and opportunistic sampling may occur as needed.

Priority Watershed Name: Wilson Creek Watershed

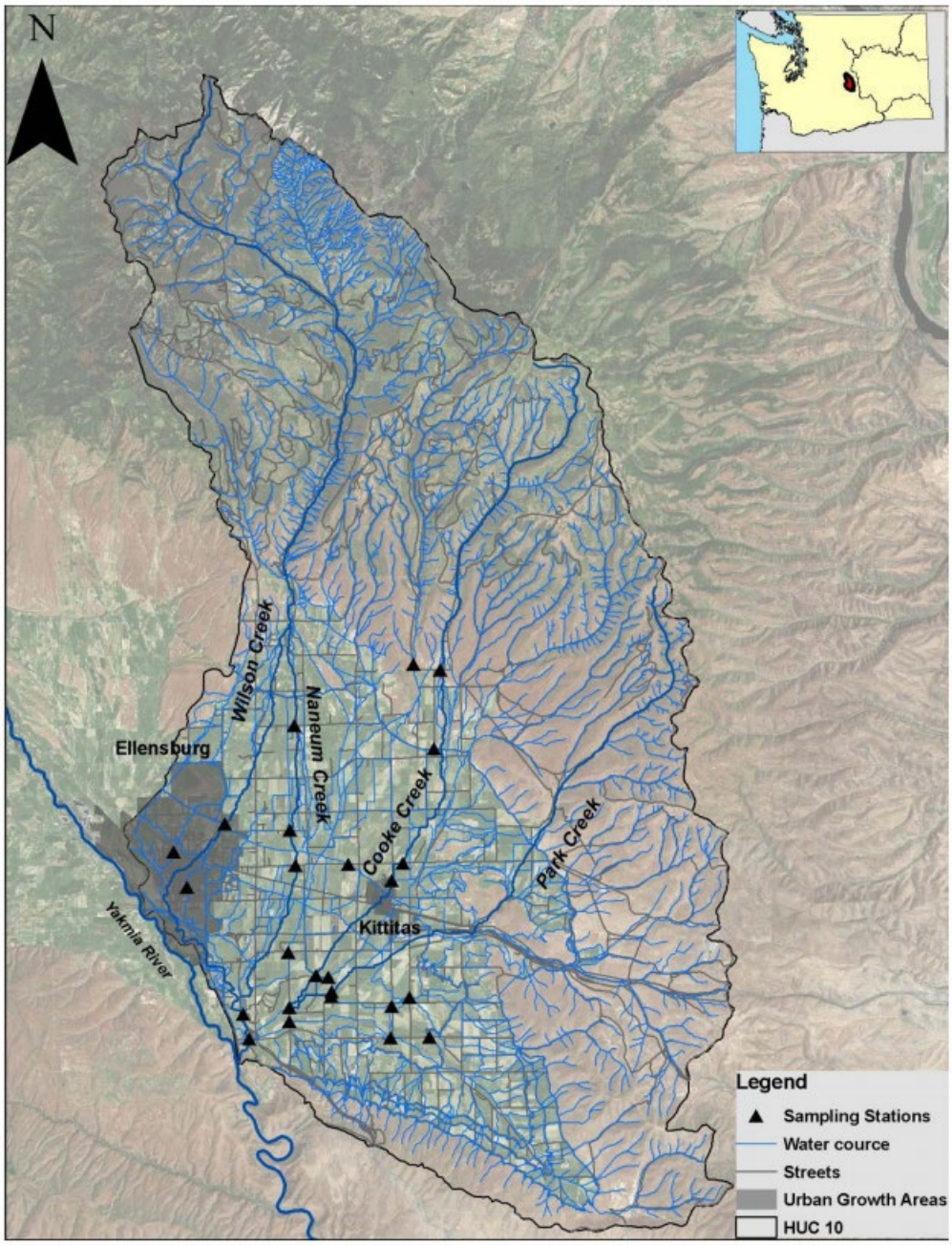

Figure 24. Map of the Wilson Creek Watershed

Implementing: Upper Yakima Basin Suspended Sediment, Turbidity and Organochlorine Pesticide Total Maximum Daily Load and the Wilson Creek Sub-basin Bacteria Total Maximum Daily Load.

Summary/Context Info:

The Wilson Creek Watershed originates in the hills to the North of Ellensburg and encompasses much of the irrigated agricultural lands north and East of the city of Ellensburg. Water Quality improvements in the Wilson Creek Watershed have been significant but have not met the goals set by the TMDLs. Turbidity goals for the waterway is indicator for reductions in both TMDLs that address the Watershed.

Within the Wilson Creek Watershed, the Roza/Sunnyside Board of Joint Control (RSBOJC) has coordinated and collaborated extensively with Ecology nonpoint staff to implement TMDLs in this area. As RSBOJC leads water quality monitoring and pollution identification and correction, this Watershed is no longer a focal Watershed for nonpoint staff, though we will continue to provide a regulatory backstop, as needed. In this and future annual reports, we will discuss the activities undertaken in Wilson Creek, in partnership with RSBOJC, in section 3.3: Develop and Strengthen Partnerships.

Priority Watershed Name: Lower Yakima River (WRIA 37)

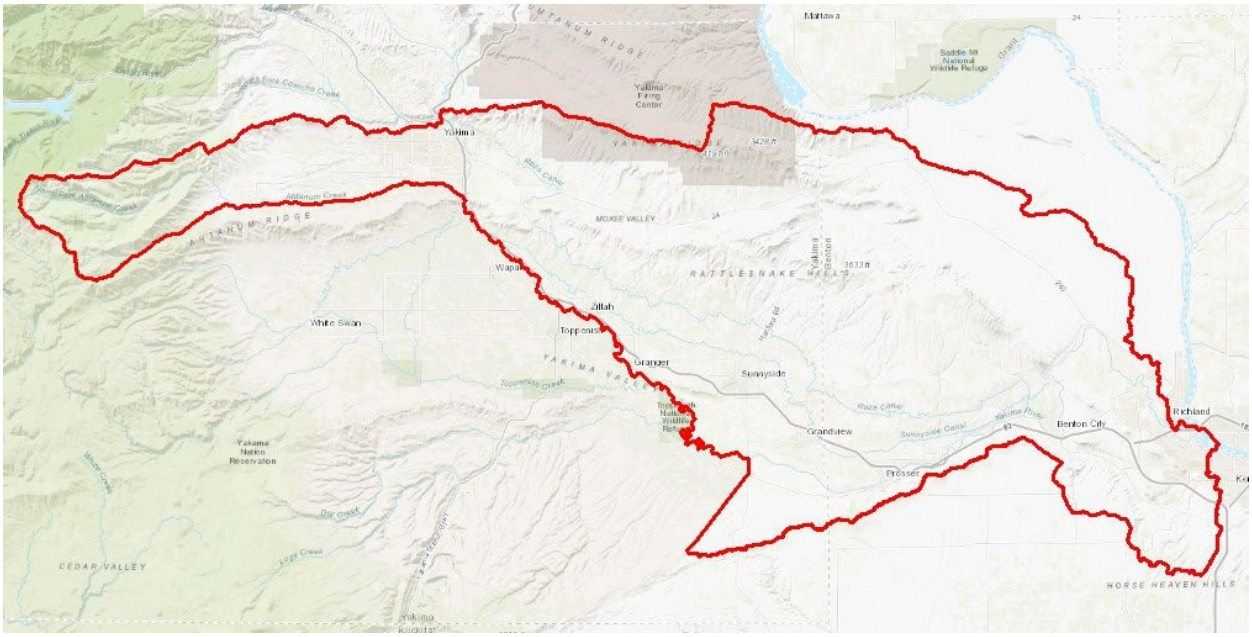

Figure 25. Map of the Lower Yakima River Watershed

Implementing: Lower Yakima Suspended Sediment TMDL

Summary/Context Info:

The ongoing implementation of the Lower Yakima Suspended Sediment TMDL has greatly improved the water quality discharged to the Lower Yakima River. Meeting and maintaining the water quality goals of the TMDL remain as the project goals. The existing strong partnerships with Roza and Sunnyside Valley Irrigation Districts is instrumental in the current and future successes seen in this Watershed. Ecology WQ staff continue to coordinate closely with staff of the irrigation districts to identify opportunities for additional water quality improvement.

Priority Actions Completed in 2024:

Education and Outreach

- Ecology's partners in the lower Yakima Watershed include Roza/Sunnyside Board of Joint Control (RSBOJC), South Yakima Conservation District, and the Benton Conservation District. These partners conduct outreach with landowners on the need to reduce suspended sediment discharges.

Financial Assistance

- Ecology non-point activity grants for water quality improvements are actively being implemented in the Lower Yakima River by the Benton and South Yakima conservation districts, and the Mid-Columbia Enhancement Group.

Partner Coordination

- Communication with the Roza/Sunnyside Board of Joint Control (RSBOJC), representing the irrigation districts, were on an as needed basis. Scheduling depended on field schedules and pollution reports.
- Communications with the North Yakima, South Yakima, and Benton County conservation districts were conducted as needed to address potential pollution sources.

Pollution Identification/Watershed Evaluation:

- Ecology staff visited the Lower Yakima Watershed periodically with an emphasis during the irrigation season and, through observation and field monitoring of turbidity, seek to identify waterway segments with elevated turbidity loading to be addressed for TMDL implementation.
- Site visits will be coordinated with Watershed partners, including irrigation districts, conservation districts, and municipalities in the Watershed. Site visits will focus on conducting monitoring and working on identification of turbidity sources, particularly through the summer irrigation season.
- Additional non-point staff were hired in September 2024. This increase in staffing allowed for additional visits to the Watershed, including follow-up on ERTS reports of water pollution concerns.

Compliance/Technical Assistance Activities

- Cases needing compliance actions to address the TMDL goal were coordinated with Watershed partners and if necessary, followed Ecology's policies on escalating enforcement.

Monitoring Activities

- Monitoring activities in 2024 were undertaken by RSBOJC on FC/EC. Sampling locations and timing are designed to compare to TMDL goals and current water quality standards.

Eastern Regional Office

Dryland Tillage in Eastern Washington

As many as 5 million acres in eastern Washington are currently in dryland crop production. Wheat, barley, peas, garbanzos, lentils, and canola are produced (depending on rainfall) within the rolling hills of the Palouse prairie, portions of the Columbia Basin, and the slopes of the Blue Mountains south of the Snake River. Field erosion and sediment discharges to surface water are a major problem throughout these dryland production areas. It is not uncommon for erosion rates in fields to exceed 20-30 tons per acre. It is estimated that more than a million tons of sediment erode from fields annually, much of that reaches streams and rivers in the region. In 2023 Ecology continued to work with our key partners on several actions designed to tackle the problem.

Figure 26. Low disturbance direct seed drill seeding into the residue of a previous crop

STI/TMDL Development and Nonpoint Planning in ERO

One of the important planning tools used in the Eastern Region is Straight to Implementation (STI). Straight to Implementation is a type of an Advanced Restoration Plan that provides the opportunity to achieve "Cleaner Water Faster." We have found that Straight to Implementation is a way to make immediate progress toward achieving water quality standards. Straight to Implementation is most appropriate for small, nonpoint pollution dominated Watersheds that meet specific criteria:

- A Watershed where we are ready to "do" – little planning is needed.

- A Watershed where we understand pollution problems and fixes.
- We can characterize the problems/fixes at the parcel scale.
- Significant implementation can be achieved in 10 years.
- We and partners are already making some progress addressing pollution problems.
- A Watershed where funding resources are available.

The Eastern Region focused resources on STI and existing TMDL implementation in 2024, looking to make significant improvements in overall water quality where existing cleanup plans are in place. At the same time, progress was made in TMDL and STI plan development (see Section 3.1.1).

Priority Watershed: Hangman Creek Watershed

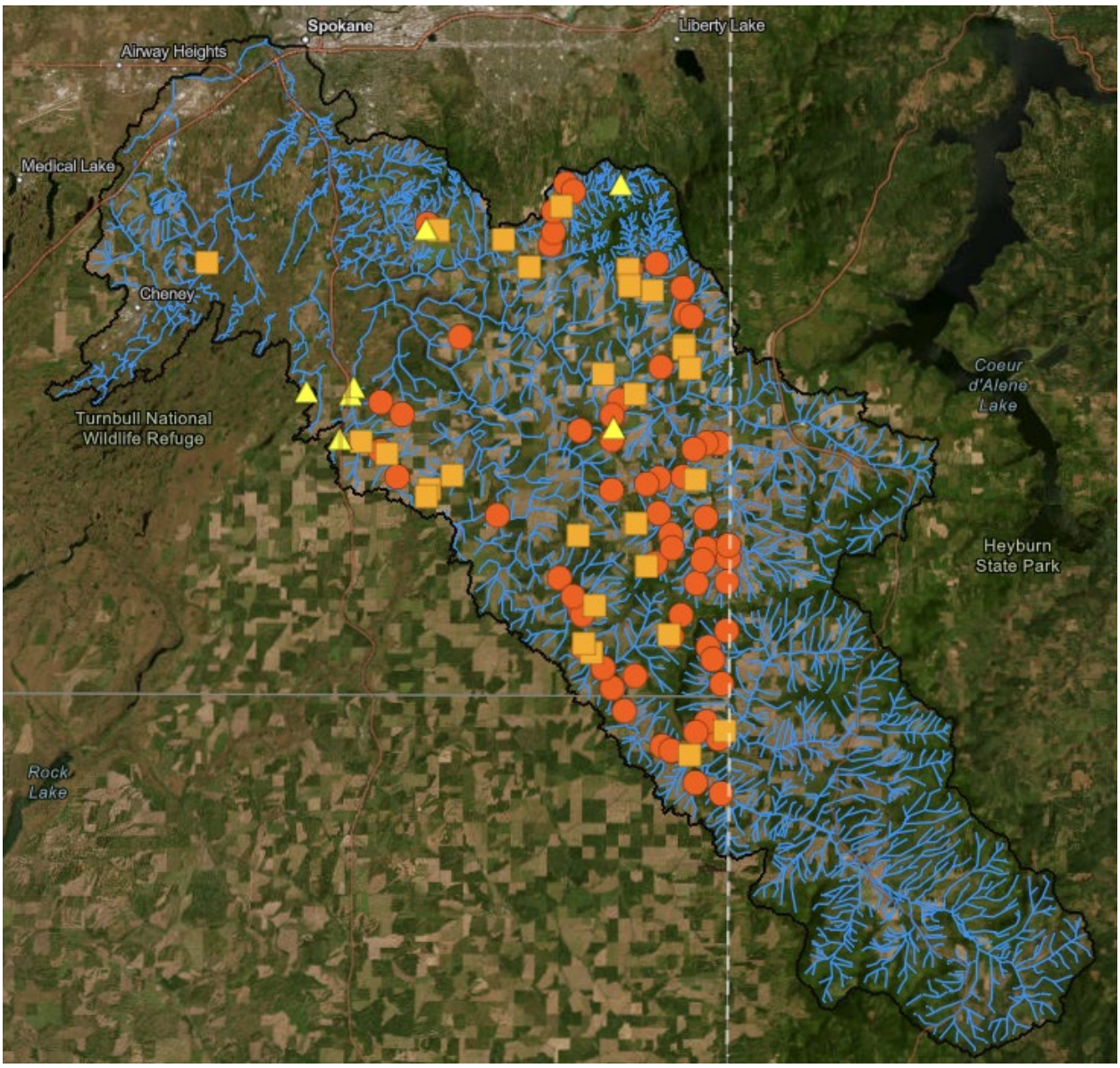

Figure 27. Hangman Creek Watershed showing locations of prioritized sites ERO staff have contacted since 2018 and are actively working with on water quality improvement projects.

Implementing: Hangman Creek TMDL

Summary/Context Info:

Streams in the Hangman Watershed are impaired by excess bacteria, turbidity, elevated water temperatures, pH, and DO. The Watershed is dominated by agricultural nonpoint sources. The Watershed was studied to develop a TMDL report and ultimately a TMDL implementation plan. The implementation plan was completed in 2011. The Spokane Riverkeeper challenged the EPA approval of the TMDL. EPA, Ecology, and Riverkeeper negotiated a 10-year agreement that

identifies and prioritizes specific actions to reduce pollution and ultimately make progress towards water quality improvements within the Hangman Watershed. The agreement was signed in 2018 and Ecology is actively implementing.

Watershed partner engagement has been a critical component to implementation efforts. Since 2018 Ecology has been working on building relationships and capacity among Watershed groups including but not limited to: Spokane Conservation District, Natural Resources Conservation Services, Pine Creek Conservation District, Spokane Tribe of Indians, Coeur d'Alene Tribe of Indians, Trout Unlimited, Inland NW Land Conservancy, and the Lands Council. Since 2018 significant resources have been leveraged and focused in the Hangman Watershed, as can be shown below in the actions completed.

Priority Actions Completed in 2024:

Education and Outreach

- **Events:** Tabled 3 events including the Spokane County Fair, State of the Lake (Moses Lake) and the Farm and Food Symposium educating approximately 700 community members within and outside of the Hangman Watershed.
- **Youth Education:** Ecology led an activity station at WaterFest demonstrating nonpoint pollution sources and riparian buffers using the EnviroScape model with 325 fifth graders from six Spokane and Hangman area schools. Ecology staff also partnered with the Riverkeeper to deliver a water quality lesson on Hangman Creek (People's Park, downtown Spokane) to approximately 60 high school students from The Community School.
- **Outreach Materials:** new outreach materials were created on financial assistance for nonpoint projects, clean water guidance for agriculture, and a display poster for the Hangman pilot project. Work began on a second mailer and a third interpretation sign and will continue into 2025.

Financial Assistance

- **Implemented the Spokane Conservation District, *Hangman Riparian Restoration and Conservation Program Phases 1 & 2* ($5,463,538 - since 2022):** This program provides rental rates with long-term contracts for agricultural riparian land taken out of production and planted with native trees and shrubs. Ecology partnered with Spokane Conservation District on this project. This program, since its inception in 2022 has contracted 340 acres of riparian restoration along nearly 16 miles of streams in the Hangman Watershed, which were previously in or directly adjacent to dryland agricultural production. This program was created to facilitate compliance for sites contacted by Ecology as having water quality concerns, which is an eligibility criterion for enrollment in the program; the program is ongoing as funding allows.

- **Implemented the Spokane Conservation District, *Hangman Creek Agricultural Sediment Abatement Project* ($424,000):** This project will restore a 2,100-foot-long reach of the Hangman Creek mainstem. The project will remove historic livestock influences, reduce active erosion through bioengineered streambank stabilization practices, and restore the riparian area with restorative buffers ranging from 130–200-foot widths. This project was funded in 2023 and will be completed in 2026.

- **Implemented the Spokane Conservation District, *Direct Seed Loan Program* ($5,196,914):** This loan from State Revolving Funds allowed Spokane County Conservation District to expand their Direct Seed Equipment Loan program to 13 counties in Eastern Washington. This program allows producers to purchase the necessary direct seed equipment to practice low disturbance, direct seed conservation tillage. This loan helps to convert acres in the Hangman Creek farmed with conventional tillage techniques to direct seed. Ecology and Spokane CD have operated this program for several years, this is the most recent phase of the program funding. This project was funded in 2023 and will be completed in 2026.

- **Implemented the Spokane Conservation District, *Hangman Creek Composite Toe Stabilization Project* ($500,000):** This project will implement nonpoint source best management practices recommended in the local Total Maximum Daily Load (TMDL) and Water Quality Implementation Plan to address turbidity from stream bank erosion in Hangman Creek. The project will build upon previous downstream work and will stabilize and install riparian plantings along approximately 1,050 linear feet of actively eroding stream bank on Hangman Creek near the Rock Creek confluence. This project was funded in 2024 and will be completed in 2027.

- **Implemented the Spokane Conservation District, *Hangman Watershed – Rock Creek Tributary Livestock BMPs* ($69,561):** This project will improve water quality by implementing livestock best management practices and 3 acres of riparian restoration on a farm located along an unnamed tributary to Rock Creek within the Hangman Creek Watershed. The site was identified and contacted due to having significant water quality concerns by Ecology staff during annual Watershed evaluations. This project was funded in 2024 and will be completed in 2027.

- **Implemented the Spokane Conservation District, *Spokane Riparian Establishment* Project ($283,500):** This project implements three projects, two of which are in the Hangman Watershed. These projects include livestock BMPs and riparian restoration across approx. 35 acres. Both sites were identified and contacted due to having significant water quality concerns by Ecology staff during annual Watershed evaluations. This project began in 2023 and will be completed in 2026.

- **Implemented the Spokane Falls Trout Unlimited, *Hangman Creek Floodplain Restoration at Grouse Creek Ranch – Phase 1 Project* ($499,730):** This agreement is part of a multi-phased project that will improve water quality, restore floodplain connectivity, and restore habitat functions along 2.2 miles of Hangman Creek upstream of its confluence with Rock Creek. This initial phase will generate a reach assessment identifying priority restoration opportunities, advance priority opportunities to preliminary and final design, initiate phased construction of priority restoration actions, and provide monitoring and adaptive management. This first phase of the project was funded in 2024 and will be completed in 2027.
- **Completed the Pine Creek Conservation Districts, *Little Hangman Creek Riparian Forest Planting* ($50,000):** This project implemented a mile of restoration on both sides of the creek within approximately 8.1 acres riparian area of Little Hangman Creek, located approximately 2 river miles downstream from the Idaho border. This project supplements a larger bioengineered streambank stabilization project with an additional 23 riparian restoration acres. The site was previously identified and contacted by Ecology for severe water quality concerns with dryland agricultural operations within the riparian area. This project began in 2022 and was completed early 2024.

- **Implemented the Spokane Tribe of Indians, *DIF Project Maintenance, Riparian Restoration, and Livestock BMPs* Project ($257,868):** This project includes project maintenance across five previously installed riparian restoration projects in the Hangman Watershed. All five projects were identified during past regional Watershed evaluations by Ecology staff as having significant water quality concerns, which were addressed by a previous implementation grant. This project began in early 2023 and will be completed by the end of 2025.

- **Implemented the Spokane Riverkeeper, *Rock and Hangman Creeks Riparian Restoration and Water Quality Improvement* Project ($256,892):** This project will continue to improve nonpoint pollution issues throughout the Watershed by installing 50 acres of riparian plantings, establishing three water quality monitoring locations, 10 water temperature loggers, install livestock BMPs, and provide education and outreach programs to maximize restoration efforts within the Hangman Watershed. This project began in 2022 and will be completed in 2025.

- **Completed the Lands Council, *Hangman Creek Watershed Riparian and Wetland Restoration* Project ($294,600):** This project continues The Land Council's work in the Hangman Watershed by installing Beaver Dam Analogs, planting riparian buffers, and educating agricultural producers and local youth in the Watershed. This project began in 2021 and was completed in 2024.

Partner Coordination

- **Engagement and outreach:** Ecology continued to work on increasing the number of parties engaged in the Hangman Creek Watershed, as well as continued building and maintaining positive relationships with existing partners. Engaged Watershed coordination and positive partnerships are vital to cultivating a synergistic environment for achieving significant water quality improvements. Additionally, Ecology is committed to engage with the Spokane and Coeur d'Alene Tribes and local municipalities on water quality protection measures.
- **Meetings with the Spokane Riverkeeper:** Ecology staff continued to meet with the Spokane Riverkeeper bi-annually to provide updates on work in the Hangman Creek Watershed, talk through issues, and plan for future work.
- **Meetings with Watershed Partners and Building Funding Capacity:** Ecology staff met regularly with Watershed partners to plan and coordinate on implementing best management practices that improve and protect water quality. Ecology will continue to work on maintaining existing funding opportunities as well as support and encourage new funding opportunities for water quality improvement work.
- **Funding for Continuing the Hangman Riparian Restoration and Conservation Program:** Ecology continued its partnership with the Spokane Conservation District on this innovative riparian restoration program – Hangman Riparian Restoration and Conservation Program. The program is currently implementing 340 acres of riparian plantings across over a dozen Hangman Settlement Agreement prioritized sites. The Spokane Conservation District and Ecology have secured an additional $1 million dollars at the end of 2024 to continue this important and unprecedented work.

Pollution Identification/Watershed Evaluation

- **Performed Comprehensive Watershed Evaluation:** Through Watershed evaluations, Ecology nonpoint staff have, over the years, identified and documented over 100 sites with nonpoint pollution problems. In 2024, Ecology staff documented observations at 46 non-point sites in the Watershed. Using site specific criteria, such as the length of stream impacted and the severity of water quality concern, 5 tillage sites and 1 livestock site were prioritized for contact.

Compliance/Technical Assistance Activities

- **Complaint Response:** Ecology staff followed up on one valid water quality complaint in the Hangman Watershed. Ecology staff met with the landowner and sister agency staff and is actively working on plans with them to implement practices that will protect water quality.
- **TA Letters:** Ecology staff mailed out six certified letters to sites prioritized during the Watershed evaluation process. Multiple phone conversations, site visits, and

partnership meetings took place because of this effort. Much of the project implementation grant funding in the Hangman Watershed is a direct result of this process.

- **Enforcement –Administrative Orders:** No administrative orders were issued in 2024 for Hangman Creek Watershed.

- **Enforcement – Warning Letters:** Ecology issued warning letters for 15 sites in 2024 in the Hangman Watershed. Nine of the 15 sites came into compliance in 2024, of the remaining six sites – three are actively working with Ecology on compliance plans and three remain unwilling to work with Ecology on full compliance.

Monitoring Activities

- **Continued Implementing Spokane Riverkeeper's Monitoring Project:** Three water quality monitoring locations were established, and 10 water temperature loggers were installed as part of the Spokane Riverkeeper's Rock and Hangman Creeks Riparian Restoration and Water Quality Improvement Project. This project provides the data to the public in real time via website.
- **Continued Spokane Salmon Restoration Collaborative Data Collection:** The Spokane Salmon Restoration Collaborative, established in 2022, is the recognized Lead Entity for Salmon Recovery Efforts in the Spokane River Subbasin, which includes Hangman Watershed. The Collaborative is tasked with collecting a multitude of data for Ecosystem Diagnosis and Treatment (EDT). EDT uses a data-intensive, habitat-based model to predict fish population metrics, focusing on abundance, productivity, biological diversity, and spatial structure in order to generate a limiting factor analysis. Watershed partners compiled existing data and worked with a contract to compile a data gaps analysis in 2023 and in 2024 on the ground data collection efforts began to fill any needed gaps. Field data collection will continue through 2025.
- **Rock Creek Basin Station Monitoring:** Ecology began monitoring Rock Creek (Hangman Creek) at Chatcolet Road as part of the region's basin station monitoring network in 2023. This multiparameter monitoring effort continued through the 2024 water year.

Priority Watershed: Palouse Watershed

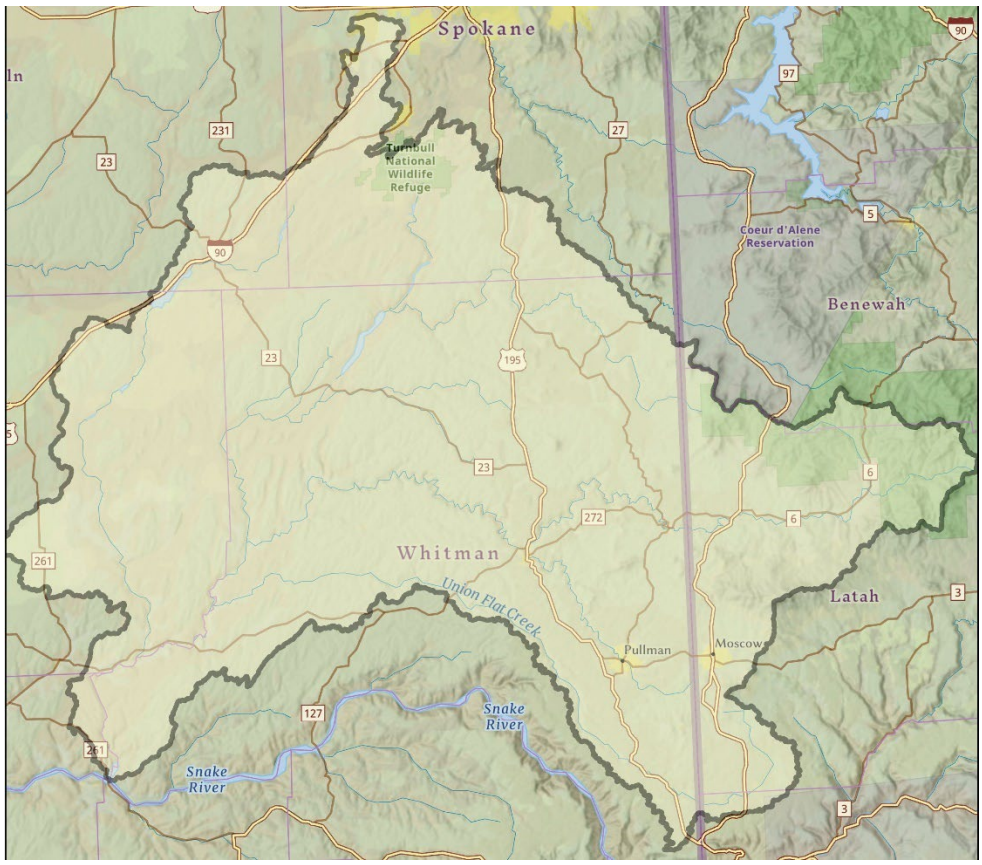

Figure 28. Map of the Palouse River Watershed

Implementing: Spring Flat Creek STI; North Fork Palouse Fecal Coliform Bacteria, DO, and pH TMDL; Palouse River Fecal Coliform Bacteria TMDL; Palouse River Temperature TMDL; Palouse River Toxics TMDL; South Fork Palouse Ammonia TMDL; South Fork Palouse DO, pH, and temperature TMDL; and South Fork Fecal Coliform TMDL.

Summary/Context Info:

The Palouse River Watershed is located primarily in Whitman County, Washington and its headwaters are in Latah County, Idaho. Land use within the Watershed is dominated by agriculture and rangeland with small rural city populations. Streams in the Palouse Watershed are impaired by excess bacteria, DO, pH, toxics, and elevated water temperatures. The Watershed and its sub basins have been studied several times and multiple TMDL reports, and subsequent implementation plans have been developed. The final Straight to Implementation (STI) Plan for the Spring Flat Creek subbasin of the Palouse was published in 2024 and significant efforts to implement that STI are taking place with partnerships between Ecology, Palouse Conservation District, and Whitman Conservation District.

Priority Actions Completed in 2024:

Education and Outreach

- **Attended Conservation District Board Meetings:** The Conservation District Boards primarily consist of farmers and ranchers. Staff did not attend board meetings in 2024. In the summer of 2024, Ecology's Eastern Regional Office hired 3 new fulltime positions: a non-point grant specialist, a Palouse Watershed Implementation Lead, and an Outreach & Education Specialist. With the hiring of the new positions, Ecology anticipates on having the capacity to attend Conservation District Board Meetings again in 2025.
- **One on One Discussions:** Ecology staff conducted two individual site visits with landowners and producers that were contacted for having water quality concerns in Spring Flat Creek Watershed of the Palouse. These site visits typically last over an hour and contain meaningful and often difficult conversations on water quality issues. Although often challenging, these outreach activities can be incredibly fruitful for water quality education and implementation efforts.
- **Town Hall Meeting:** Ecology partnered with the Palouse and Whitman Conservation Districts for a Spring Flat Creek Watershed Town Hall Meeting in December of 2024. The meeting provided landowners an opportunity to learn about state water quality law and conservation programs available to them. 33 landowners attended the meeting.
- **Conservation District Education and Outreach Actions:** As provided in the following section, Ecology funds several projects that have an education and outreach component. Several education and outreach workshops and events took place because of this funding in the Palouse in 2024.

Financial Assistance

- **Began implementing the Palouse Conservation District Spring Flat Creek Water Quality Enhancement Project ($345,445):** High stream temperatures, low dissolved oxygen levels, and high pH values have recently been identified as problems in Spring Flat Creek (SFC), a tributary of the South Fork Palouse River. This project will improve water quality in the SFC Watershed by providing riparian buffer installation, technical assistance and conservation planning, direct seed cost share, environmental monitoring, outreach, and education to producers. In 2024, the Conservation District completed one landowner agreement for riparian buffer implementation and submitted their draft Quality Assurance Project Plan to Ecology for review.
- **Completed the Palouse Conservation District The Water Quality Saga: A Cost-Share-nary Tale Project ($666,666)**: Now complete, this three-year project improved water quality in Whitman County streams by implementing ten acres of riparian buffer and 6,750 acres of direct seeding. The project also conducted monitoring efforts, utilizing remote sensing to detect changes in crop residue cover with conservation farming

practices, and implemented an outreach and education program to further improve water quality awareness throughout Palouse Conservation District's service area.

- **Began implementing the Palouse Conservation District Restoring Watershed Function in the Palouse River Watershed ($485,615):** Palouse Conservation District will help restore streamflow, water quality, Watershed function, and habitat in the Palouse River Watershed by implementing instream bioengineering projects, establishing new flow and water quality monitoring, and building awareness and support to improve stream channels and riparian habitat. Eight of the project sites are in the Palouse Watershed, and one is on a small unnamed tributary of the Snake River upstream from the Palouse River. Education and outreach efforts will build public awareness of water quality issues and encourage action to protect water resources.
- **Implemented the Palouse Conservation District Do the Residue! Promoting Direct Seed Operations on the Palouse Project ($666,666):** Palouse CD continued to implement five acres of riparian buffers and 9,000 acres of direct seeding to improve water quality in Whitman County streams. A survey of producers will assess direct seed adoption by conservation program participants. Additional crop residue monitoring and outreach and education programs, including the Alternative Cropping Symposium and Direct Seed Breakfasts, will lead to further water quality improvements in the Palouse River Watershed.
- **Implemented the Palouse Conservation District Full Stream Ahead! Riparian Restoration Innovations on the Palouse River Project ($666,666):** Riparian buffers improve water quality, yet in artificially drained agricultural regions, water can bypass riparian soils and plant roots, reducing their capacity to remove nutrients. This multi-approach project is restoring 15 acres (1.5 miles), installing four beaver dam analogs (BDAs), and constructing three saturated riparian buffers (SRBs), a new conservation practice that facilitates riparian nitrogen removal, to improve water quality in the South Fork Palouse River Watershed. Each SRB will be monitored in multiple locations to assess their effectiveness and measure water table dynamics.
- **Implemented the Palouse Conservation District Partnership to Restore Riparian Areas in the Lower Fourmile Creek Watershed Project ($661,541):** Riparian buffers improve water quality and ecological functions of streams. This project will restore 30 acres of riparian areas (23,000 streambank feet) in the lower Fourmile Creek Watershed, including installing up to 600 feet of streambank protection and 10 to 12 beaver dam analogs, providing technical assistance, assessing revegetation methods, installing interpretive signs, and developing place-based curriculum on riparian restoration and conservation agriculture.
- **Implemented the Palouse Conservation District Operation Residue: (Under) cover Crops & Direct Seeding on the Palouse Project ($590,716):** Palouse Conservation District (PCD) will lead implementation of one stream mile of riparian forest buffer and 6,000 acres of direct seeding to improve water quality in Whitman County streams. A

250-acre cover crop demonstration project will assist producers in improving soil health on their farms. Soil health assessment of direct seed and cover crop projects will demonstrate project effectiveness, and outreach and education programs will lead to further community investment in water quality improvements.

- **Implemented the Palouse Rock Lake Conservation District One Pass at a Time-Conservation of Pine Creek Watershed ($491,156):** Palouse Rock Lake Conservation District will address nonpoint pollution throughout the Pine Creek Watershed by installing 1 mile of riparian plantings; implementing 6,750 acres of conservation tillage; and providing education and outreach to members of the community.
- **Implemented the Whitman Conservation District North Fork of the Palouse Restoration ($240,000):** Whitman Conservation District will restore approximately 34.1 acres of riparian area in the North Fork Palouse Watershed. In addition to riparian plantings, 30 post assisted log structures and beaver dam analogues will be installed. This project will occur along a 3,500-foot reach of North Fork Palouse River, 3,266-foot reach of Silver Creek (a tributary to North Fork Palouse River), and a 1,728-foot ephemeral channel connected to Silver Creek. An education and outreach program will provide hands-on learning experiences on riparian restoration and water quality protection.
- **Implemented the Whitman Conservation District South Fork Palouse River Property Protection ($490,000):** This project will acquire approximately 125 acres in the South Fork Palouse River Watershed including 3,800 feet of the South Fork Palouse River. The land acquisition will provide Watershed protection which allows the district to implement riparian planting and provide education and outreach in the community.
- **Implemented the Whitman Conservation District Palouse River Water Quality Enhancement Project ($270,000):** The Palouse River has been identified through the 303(d) list for impairments of temperature, pH, and dissolved oxygen. To address these issues, the Whitman County Conservation District has identified multiple project sites for riparian restoration in the Palouse River Watershed. Working closely with one landowner, vehicle and metal scrap was removed along approximately 650 feet of the river in the fall of 2024. Following the removal of vehicle scrap, approximately 1444 tons of gravel was used to fill and slope the bank. Conservation District staff completed riparian planting and grass seeding of the restoration area in November of 2024.
- **Implemented the Whitman Conservation District Palouse River Habitat Restoration and Stabilization Project ($468,250):** The Palouse River is identified on the Washington 303(d) list for impairments of pH, dissolved oxygen, temperature, and bacteria. To address these issues, the Conservation District will identify project sites for riparian restoration, livestock BMPs, and direct seed in the Palouse River Watershed.

Partner Coordination

- **Meet and Greet with Conservation Districts:** In the summer of 2024, Ecology's Eastern Regional Office hired 3 new fulltime positions: a non-point grant specialist, a Palouse

Watershed Implementation Lead, and an Outreach & Education Specialist. With the hiring of the new positions, Ecology set up in person meet and greets with Palouse, Whitman, and Palouse Rock Lake Conservation District to continue to develop cooperative relationships with local partners.

- **Project Tour with Whitman Conservation District:** Ecology participated in a site visit tour with the Whitman County Conservation District in October of 2024. The tour consisted of visiting 5 restoration sites in the Watershed that were implemented under Ecology grants.
- **Participated on the Palouse Regional Conservation Partnership Program (RCPP):** Ecology was an active participant in the first Palouse RCPP (2016-2021), and the approved renewal of that RCPP (2021-2027). Combined, the two RCPPs have implemented 77, 265 acres of conservation tillage, acquired 966 acres of conservation easements, and installed 966 acres of riparian buffers.

Pollution Identification/Watershed Evaluation

- **Performed Comprehensive Watershed Evaluation of Spring Flat Creek**: Annual surveys were conducted during the early spring season to identify livestock and dryland agricultural water pollution issues. Work was focused primarily on the Spring Flat Creek subbasin of the Palouse.

Compliance/Technical Assistance Activities

- **Contacted Five Priority Pollution Sites:** Five new landowners with livestock or dryland agricultural water quality issues were contacted via technical and financial assistance letters. All letters were followed up with email or phone calls (if contact number is available) throughout the year to ensure continued communication with the landowner.
- **Created Riparian Buffer Maps for Landowners:** Staff set up site visits with contacted landowners and developed riparian buffer maps for Spring Flat Creek priority sites. The plans included visual representations and acre estimations of riparian buffers designed to fully protect water quality.
- **Followed up on Nonpoint WQ Complaints:** Staff continued to respond to any water quality complaints or technical assistance requests received from the public. Phone calls and/or letters may follow if staff have confirmed a water quality issue exists. No follow up letters were needed in 2024.

Monitoring Activities

- **Monitor Existing Sites:** Staff continued to monitor and document existing sites where water quality concerns persist.
- **Continued to partner with Palouse CD on Monitoring Work**: Palouse CD has taken the lead on a large monitoring effort in the Palouse Watershed. The Palouse CD will begin collecting water quality data at new sites in the Spring Flat Creek Watershed in 2024.

This effort is part of the Palouse Conservation District Spring Flat Creek Water Quality Enhancement Project, funded by Ecology.

Priority Watershed: Little Spokane River Watershed

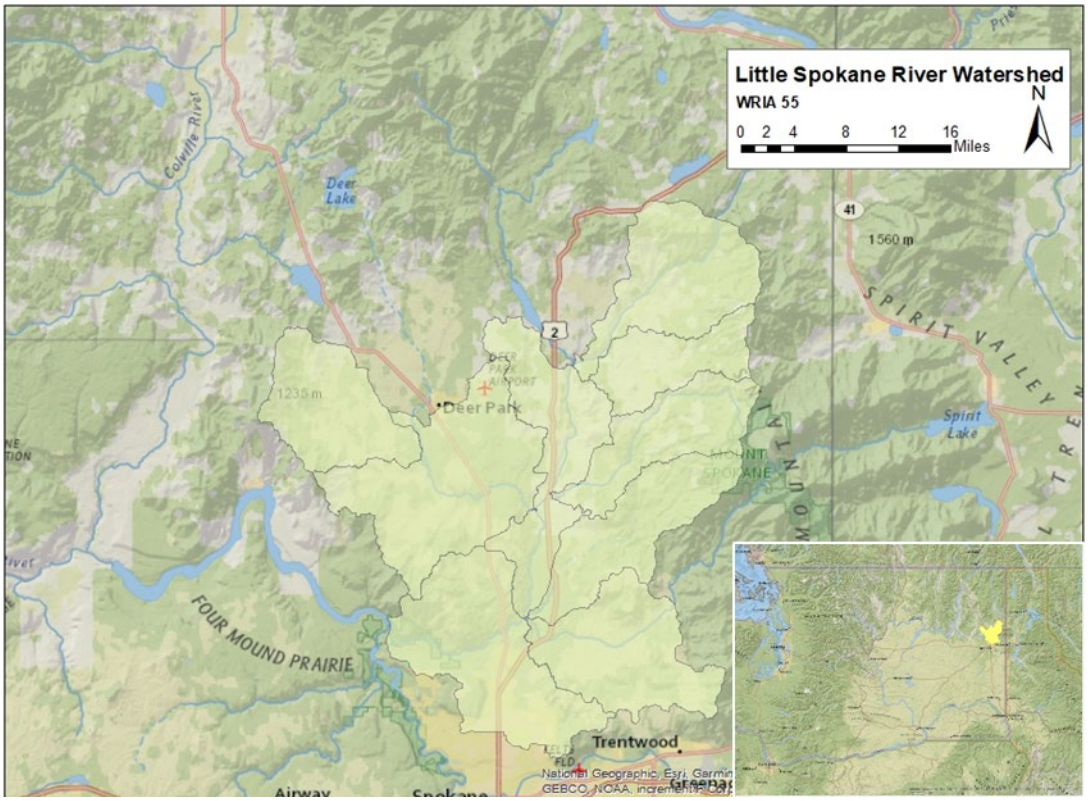

Figure 29. Map of the Little Spokane River Watershed

Implementing: Little Spokane River TMDLs for bacteria, temperature, dissolved oxygen, total phosphorus, and pH

Summary/Context Info:

Ecology finalized the Little Spokane River DO, TP, and pH TMDL and submitted it to EPA in December 2020. The TMDL was approved by EPA in January 2021. Ecology is now focused on implementing this TMDL and the 2012 fecal coliform, temperature, and turbidity TMDL. The water quality impairments in the Little Spokane are primarily due to non-point pollution problems. The TMDL identifies riparian health as a key to meeting water quality standards. Implementation work is focused on protecting and restoring riparian areas and upland farming practices that deliver sediment to surface water.

Priority Actions Completed in 2024:

Education and Outreach

- **Continued performing Outreach with Friends of Little Spokane:** Ecology staff partnered with the non-profit to share information with their organization members on water quality goals and stream restoration funding opportunities.
- **Continued Outreach with The Lands Council and Gonzaga University:** Ecology staff partnered with the non-profit to better understand the efficacy of BMP's to reduce Phosphorus levels.
- **Worked on developing a Little Spokane Website:** Transition website information from TMDL development information to TMDL implementation tracking and reporting. Ensure website is regularly updated with information on implementation progress.

Financial Assistance

- **Continued to Implement The Inland Northwest Land Trust, Glen Tana Land Acquisition**: Ecology used $500,000 to protect 50 acres of property in the Spokane Watershed adjacent to the Glen Tana reach of the Little Spokane River. This property acquisition is part of a larger acquisition of 1,066 acres along the Little Spokane River.
- **Continued to Implement the Spokane Conservation District, *Spokane Riparian Establishment* Project ($283,500):** This project reestablishes flood plain function, sinuosity, and bank stability in Deadman Creek in the Little Spokane River Watershed. Issues with matching funds from a partner federal agency have delayed this project, but at the end of 2023 Ecology and Spokane Conservation District have successfully acquired enough project match to move forward with implementation.

Partner Coordination

- **Partner engagement:** Ecology continued building and maintaining positive relationships with existing partners, such as working with our sister agency WDFW to develop a compliance schedule for development of a new fish hatchery facility. Engaged Watershed collaboration and building positive partnerships are vital to cultivating a synergistic environment for achieving significant water quality improvements. Additionally, Ecology is committed to engage with the Spokane Tribe, Spokane CD, and local municipalities on water quality protection measures.
- **Participated in the Voluntary Stewardship Program:** Ecology continues to meet bi-monthly with partners, such as the Spokane Tribe of Indians, local agricultural producers, Spokane Municipalities, CD's and interest groups to find solutions to meet water quality standards.
- **Meetings with Watershed Partners and Building Funding Capacity:** Ecology staff met regularly with Watershed partners to plan and coordinate on implementing best management practices that improve and protect water quality. Ecology will continue to

work on maintaining existing funding opportunities as well as support and encourage new funding opportunities for water quality improvement work.

Pollution Identification/Watershed Evaluation

- **Documented Pollution Problem Sites for Assistance:** Identified at least 20 non-point pollution problems in the Watershed using the nonpoint program's Watershed evaluation process. A minimum of five of these sites were prioritized using site specific criteria, such as the length of stream impacted and the severity of riparian damage.

Compliance/Technical Assistance Activities

- **Contacted at Least Five Priority Pollution Sites**: Approximately 5 new landowners with livestock or dryland agricultural water quality issues were contacted via technical and financial assistance letters. All letters are followed up with multiple phone calls (if a contact number is available) throughout the year to ensure continued communication with the landowner.
- **Followed Up on Previous Years Priority Sites**: Landowners who have received technical assistance letters in previous years (same numbers as mentioned above), and who remain out of compliance, will be contacted through additional phone calls and follow-up technical/financial assistance letters.
- **Developed Water Quality Protection Plans for Priority Sites:** Staff set up site visits and worked to develop BMP plans for at least five sites. The plans included riparian buffers designed to fully protect water quality.
- **Implemented Water Quality Protection Plans/Riparian Buffers:** Using a combination of technical/financial assistance as well as compliance tools, Ecology staff worked to ensure implementation of three miles of riparian buffer in the Little Spokane River Watershed.
- **Sent Warning Letters to Priority Sites**: If a landowner has received multiple letters and continues to remain out of compliance, Ecology will escalate to a warning letter with an expectation of response within 30 days. Ecology sent warning letters to two sites.
- **Followed up on Non-point WQ Complaints:** Staff continued to respond to any water quality complaints received from the public. Phone calls and/or letters may follow after staff have confirmed a water quality issue exists.

Monitoring Activities

- **Continued performing Comprehensive GIS Evaluation of Riparian Health:** Using aerial imagery, staff analyzed current riparian condition for each parcel adjacent to a stream in the Watershed. As improvements are made, maps will track improving riparian health.

- **Tracked Non-Point BMP Implementation:** Ecology staff partnered with Gonzaga University students and The Lands Council to monitor the efficacy of BMP's, such as Beaver Dam Analogs (BDAs) to reduce total Phosphorus, increase sinuosity and bank stability.
- **Established Photo Monitoring Points**: Staff established photo monitoring points at pollution problem sites to document riparian condition improvements over time.

Priority Watershed: Moses Lake Watershed

Figure 30. Map of the Moses Lake Watershed in Eastern Washington

Implementing: Other Locally Led Partnership

Summary/Context Info:

Ecology is a member of the Moses Lake Watershed Council (MLWC). The Columbia Basin Conservation District (CBCD, formerly the Grant County Conservation District) leads the collaborative entity, formed in 2018 with the purpose of facilitating locally led water quality improvements in the Moses Lake Watershed. The MLWC has grown to include a diverse group of local, state, and federal parties, including the Washington State Department of Ecology (Ecology), Moses Lake Irrigation and Rehabilitation District, Grant County Health District, City of Moses Lake, and the U.S. Bureau of Reclamation (USBR), along with representation from local tourism, businesses, and concerned citizens.

The MLWC was formed in direct response to persistent harmful algal blooms during summer months that impair the public's use of Moses Lake and poses a great risk to public health and the health of pets and livestock. The MLWC is building on several decades of efforts studying Moses Lake's poor water quality. Work conducted by the University of Washington and the EPA Clean Lakes Project in the 1980's generated a large body of data and recommendations for improving water quality. However, long-term management plans for the lake and Watershed

were not developed or implemented. Ecology issued a draft Total Maximum Daily Load (TMDL) plan in 2002, but the TMDL process was suspended in 2004 due to a lack of political and community support. Instead of resuming the TMDL process, Ecology helped initiate a locally driven effort in 2019 to address sources of phosphorus pollution.

Priority Actions Completed in 2024:

Education and Outreach

- **Implemented Public Information and Outreach Plan:** Ecology and partners continued to implement an Information and Outreach Plan, including work to develop an "algae tracking" website with information on cyanobacteria and how to report an algae bloom, along with information and resources for residents to take action to protect the lake.
- **Conservation District Education and Outreach Actions:** As provided in the following section, Ecology funds projects that have an education and outreach component. Several education and outreach workshops and events took place because of this funding in the Moses Lake Watershed in 2024. Ecology's newly hired nonpoint education and outreach specialist operated an information booth at the 2024 Moses Lake State of the Lake community workshop in September.

Financial Assistance

- **Implemented the third year of Moses Lake Shoreline Restoration and Nutrient Reduction Project ($249,979):** This project will develop and implement a shoreline nutrient assessment technical assistance program for shoreline property owners, construct a shoreline restoration exhibit, conduct education and outreach activities, and continue to support a groundwater study of phosphorus contributions to Moses Lake and identify mitigation techniques.
- **Columbia Basin Conservation District implemented the first year of a community project funding Moses Lake water quality ($3,100,000):** Ecology staff helped the Watershed Council secure federal funding for improving Moses Lake's water quality to reduce occurrences of harmful algal blooms. EutroPHIX administered the first treatment of Lanthanum-modified bentonite clay and other technologies in deeper areas of the Rocky Ford Arm to prevent the release of phosphorus and mitigate approximately 10,000 pounds of internal phosphorus loading.
- **Implemented Septic System conversion and servicing project ($453,000):** Ecology staff helped manage the grant with Columbia Basin Conservation District. Twenty homes along Moses Lake have signed up to be converted from Septic to sewer service. Eighteen homes along the lake have signed up to have their septic system serviced. This project will also fund the construction of 4,000 feet of riparian buffer along Rocky Ford Arm of Moses Lake.

Pollution Identification/Watershed Evaluation

- In lieu of traditional Watershed evaluations, staff worked with the Moses Lake Watershed Council to identify nutrient contributions to Moses Lake.

Partner Coordination

- **Participated in the Moses Lake Watershed Council:** The MLWC meets monthly. Subcommittees met outside the regular meeting schedule to evaluate emerging technologies, data and monitoring, information and outreach, grants, and legislative activities. A representative from Ecology staff participated in most meetings in 2024. The Council continues to work on water quality improvement efforts.

Compliance/Technical Assistance Activities

- **Ensured Troutlodge Agreed Order is Implemented:** Ecology continued to work with Troutlodge Inc. to implement a 2020 Agreed Order for their two fish hatcheries (ELM 1 and ELM 2) on Rocky Ford Creek. The Order requires Troutlodge to evaluate potential sources of nutrient loading to Rocky Ford Creek from the hatcheries. It also requires they propose management changes to reduce nutrient discharges.

Monitoring Activities

- **Monitoring in Rocky Ford Creek:** The agreed order for Trout Lodge includes comprehensive monitoring, including Rocky Ford Creek. A Quality Assurance Project Plan was followed to collect data and an annual monitoring report was submitted to Ecology on nutrient and flow data. Under the new Finfish General Permit (reissued in October 2021), Troutlodge has now expanded their sampling to include additional nutrient parameters. Their second year of data collection occurred in 2024. They presented a summary of the data to Ecology and the Moses Lake Watershed council at the end of the 2024 monitoring season.

Priority Watershed: Whitman Snake River Tributaries

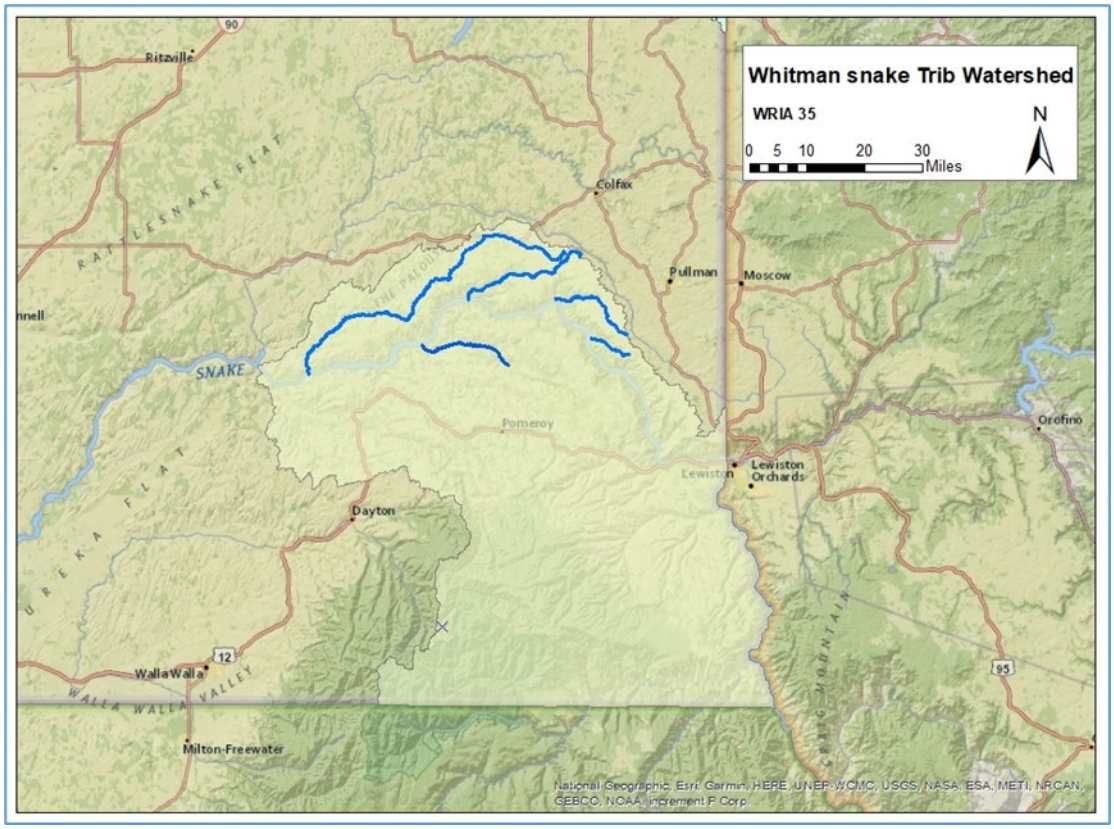

Figure 31. Map showing the Snake River tributaries (Steptoe, Almota, and Alkali Flat creeks)

Implementing: Steptoe Creek STI, Early Implementation Actions for Almota Creek and Alkali Flat Creek STIs (In development).

Summary/Context Info:

A number of northern Snake River tributaries in Whitman County have been identified as Category 5 on the Water Quality Assessment. Some Watersheds currently have established Straight to Implementation Strategies in place (Steptoe Creek) and others currently in development (Almota Creek and Alkali Flat Creek). These northern tributaries are largely dominated by agricultural land-use with livestock issues often impacting the riparian habitat. Ecology has continued to work with local partners through project implementation and technical assistance to further combat these issues.

Priority Actions Completed in 2024:

Education and Outreach

- **Partnered with the Palouse Conservation District on Conservation Tillage Education**: Through grant funds PCD hosted various presentations, tours, and outreach materials for local producers on conservation tillage and riparian buffers. PCD has utilized multiple

Ecology grants to develop a conservation tillage cost-share program which is well advertised throughout the district's footprint and beyond.

- **Installed Educational Signs Highlighting Importance of Livestock BMPs**: Palouse Conservation District and Ecology installed educational signs discussing livestock impairments and associated BMPs.
- **Partnered with the Whitman Conservation District on Outreach to Students**: District staff visited K-12th grade classrooms giving presentations on restoration practices while university students participated in volunteer planting events.

Financial Assistance

- **Implemented the Palouse Conservation District, Supporting Sustainable Ranching on Snake River Tributaries ($666,667):** The Palouse CD is working with livestock producers along both Steptoe Creek and Wawawai Canyon to install livestock BMPs, increase monitoring, and provide education/outreach to local livestock producers. The grant provides funding to help install riparian buffers at livestock priority pollution sites identified by Ecology staff.
- **Implemented the Whitman Conservation District Mud Flat Restoration ($500,000):** This project will improve water quality in Alkali Flat Creek through implementation of a suite of riparian and agricultural best management practices. Alkali Flat Creek has long been identified on the Washington 303(d) list for impairments of pH, temperature, dissolved oxygen, and bacteria. To address these issues, Whitman Conservation District has identified project sites on Mud Flat Creek, a tributary of Alkali flat creek, for riparian restoration and improvement.
- **Implemented the Whitman Conservation District Alkali Flat Creek Water Quality Enhancement ($280,000):** This project will restore a minimum of 21 acres of riparian buffer and 9,250 stream feet across the Alkali Flat Creek Watershed. In addition to riparian plantings, 40 post assisted log structures will be installed and the conservation district will provide education and outreach to the community.
- **Implemented the Palouse Conservation District Alkali Flat Creek Property Protection ($1,000,000):** This project will protect 437 acres adjacent to Alkali Flat Creek. Preserving this property is important for showcasing conservation practices that promote soil health and reestablish and protect native prairie, riparian species, anadromous fish, and water quality. This project was enhanced with additional Ecology funds to make up for changes in property values.
- **Implemented the Palouse Conservation District *Pioneer Stock Farms Critical Land Acquisition* ($140,565):** This project will support the existing Ecology grant, Alkali Flat Creek Property Protection. Palouse Conservation District will acquire 437 acres along Alkali Flat Creek.

Partner Coordination

- **Hosted Meetings with the Whitman Conservation District:** Ecology worked closely with the staff of Whitman CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in the region.
- **Hosted Meetings with the Palouse Conservation District:** While much of the work the Palouse CD revolves around the Palouse Watershed, their district falls within the boundaries of both Steptoe Creek and Wawawai Canyon. Ecology worked extensively with PCD staff through various project implementation, technical assistance, and events.
- **Participated with the Snake River Salmon Recovery Board:** Ecology consistently worked with various parties involved in salmon recovery efforts in the region, including Whitman County Snake River tributaries. As a lead entity voting member and a member of the Regional Technical Team, Ecology assists with the SRSRB annual grant round and provides technical assistance for water quality issues as they relate to salmon recovery and habitat restoration.

Pollution Identification/Watershed Evaluation

- **Performed Comprehensive Watershed Evaluation:** Annual surveys were conducted during the early spring season that identified livestock water pollution issues. Work was focused on a majority of Snake River tributaries including Alkali Flat Creek, Penawawa Creek, Almota Creek, Wawawai Canyon, and their associated tributaries. Approximately 40 pollution sites were identified in these Watersheds.
- **Prioritized Pollution Sites for Assistance:** Three new sites were prioritized for contact in 2024. Sites were evaluated along with other Snake River Watershed tributaries to determine new technical and financial letters to be sent out to landowners with water quality pollution issues.

Compliance/Technical Assistance Activities

- **Ensured Final Steptoe Order Implementation:** An administrative order was sent to a landowner in the Steptoe Creek Watershed in 2019 addressing ongoing livestock pollution issues. Since the order was sent, Ecology, along with the partnership of the Palouse CD have developed a plan to address the site. Most of the riparian buffer and other elements have been implemented. Additional livestock exclusion fencing, and riparian planting was conducted in 2022. Except for emergency water gaps, livestock exclusion was achieved in 2023. Work and improvements under an existing grant are ongoing.
- **Responded to Non-Point Complaints:** ERO responds to all water quality related complaints in these Watersheds. If pollution site is identified to be of concern, ERO sends a follow-up technical assistance letter to further address the water quality concern.
- **Contacted New Priority Pollution Sites for Assistance:** Four new landowners with livestock water quality issues were contacted via technical and financial assistance letters. All letters are followed up with multiple phone calls (if contact number is available) throughout the year to ensure BMP plans are developed and implemented.

- Landowners who have received technical assistance letters in previous years and who remain out of compliance will be contacted again through additional phone calls and follow-up technical/financial assistance letters. If landowner has received multiple letters and continued to remain out of compliance, ERO may send a warning letter.

Monitoring Activities

- **Established Photo Monitoring Points:** Staff established photo monitoring points at pollution problem sites and document riparian condition improvements over time.
- **Continued to partner with Palouse CD on Monitoring Work:** Palouse CD has taken the lead on a large monitoring effort on the Palouse Watershed and Steptoe Creek. Ecology will continue to partner with Palouse CD on that effort.

Priority Watershed: Blue Mountain Snake River Tributaries

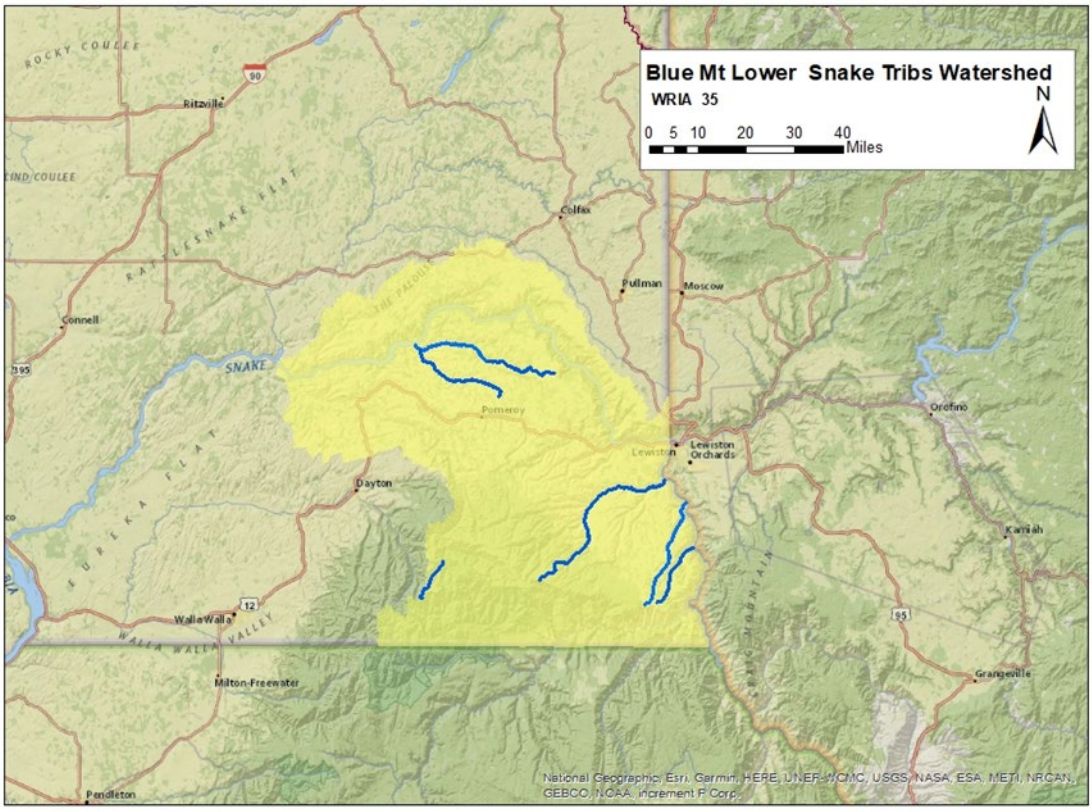

Figure 32. Map showing Snake River Tributaries (Asotin, Alpowa, Deadman, Meadow, Tenmile and Couse creeks).

Implementing: Pataha Creek TMDL in development, Asotin Creek STI and Alpowa Creek, Deadman and Meadow Creeks, Tenmile Creek, and Couse Creek 4b projects.

Summary/Context Info:

The Blue Mountain/Lower Snake tributaries comprise all of the Snake River tributaries ranging across Columbia, Garfield, and Asotin Counties. These drainages primarily originate in the Blue

Mountains or foothills surrounding the region. The headwaters and upstream sections are often forested with minimal land-use and switching to agriculturally dominated lower reaches. Livestock grazing remains an ongoing concern throughout the Watershed. Ecology has initiated 4b Straight to Implementation strategies in these Watersheds, provided the lack of point sources and significant progress is being made to address well understood nonpoint pollution issues. Ecology is actively working in these Watersheds to continue to implement projects and work with parties to address these issues. A monitoring effort on these 4b Straight to Implementation waterways was completed in 2024 that monitored temperature, E. coli and pH for a full water year. This monitoring effort will help to inform where water quality impairments continue to exist and advise where continued resources are required. In addition to this 4b monitoring work, TMDL scoping and data collection was begun for Pataha Creek that will investigate bacteria, dissolved oxygen, and pH levels. Data collection for these parameters, as well as turbidity and temperature, will occur over a full water year.

Priority Actions Completed in 2024:

Education and Outreach

- **Active Participant of Snake River Salmon Recovery Board Meetings**: Ecology staff assisted with local project leads on salmon recovery projects that interact with water quality BMPs. Staff assisted with identifying water quality improvements for projects looking to protect and restore salmonid habitat.
- **Presented Pataha Creek's TMDL Effort**: Ecology staff presented current work efforts on Pataha Creek's TMDL development at a Snake River Salmon Recovery Regional Technical Team meeting. This will be the first of several presentations on the upcoming TMDL.

Financial Assistance

- **Implemented the Asotin County Conservation District *Water Quality Enhancement Project* ($333,333):** This grant implements various BMPs across 40,000 stream feet of Asotin County tributaries including a minimum of 20,000 plantings. BMPs include riparian buffers, streambank stabilization, livestock exclusion, and direct seeding. The project supports implementation at priority sites identified via Ecology Watershed evaluations. This grant is active through the end of 2025.

Partner Coordination

- **Participated on the Snake River Salmon Recovery Board (SRSRB) Regional Technical Team**: Ecology consistently works with various parties involved in salmon recovery efforts in the region. As a lead entity voting member and a member of the Regional Technical Team, Ecology assists with the SRSRB annual grant round and provides technical assistance for water quality issues as they relate to salmon recovery and habitat restoration.

- **Held Pataha Creek's TMDL Partnership Group Kick-off Meeting:** The Snake River Salmon Recovery Regional Technical Team will serve in an advisory role helping to ensure that the TMDL's Implementation Plan will be successful. The first of several meetings has been held, and the group will be updated as necessary.
- **Participated in Snake River Local Working Group Meeting**: Ecology staff participate in this basin wide working group focused on challenges and solutions to the greater Snake River Watersheds.
- **Hosted Asotin County Conservation District Coordination Meetings:** Ecology works closely with the staff at Asotin CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in Asotin County.
- **Hosted Pomeroy Conservation District Coordination Meetings:** Ecology works closely with the staff at Pomeroy CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in Garfield County.
- **Partnered with the Columbia Conservation District:** Ecology works closely with CD staff to identify issues, coordinate plans/projects, and provide technical assistance to the public in Columbia County.

Pollution Identification/Watershed Evaluation

- **Performed Comprehensive Watershed Evaluation:** Annual surveys were conducted during the early spring season to identify livestock water pollution issues. Work was focused on a majority of Snake River tributaries including Deadman Creek, Meadow Creek, Alpowa Creek, Pataha Creek and associated tributaries.
- **Performed Water Quality Monitoring**: Staff monitored water quality parameters (E. coli, pH, temperature) in six Snake River 4b (Straight to Implementation) Watersheds. Straight to Implementation plans have been underway for these waterways and require reevaluation following implementation of best management practices. This effort will help to identify where impairments continue to exist for future focus areas.

Compliance/Technical Assistance Activities

- **Followed up on Non-point WQ Complaints:** Staff continued to respond to any water quality complaints received from the public. Phone calls and/or letters may follow after staff have confirmed a water quality issue exists.
- **Contact New Priority Pollution Sites for Assistance:** Three new landowners with livestock water quality issues were contacted via technical and financial assistance letters. All letters are followed up with multiple phone calls (if contact number is available) throughout the year to ensure BMP plans are developed and implemented.

Monitoring Activities

- **Established Photo Monitoring Points:** Staff established photo monitoring points at pollution problem sites and documented riparian condition improvements over time.

- **Tracked Non-point BMP implementation:** Ecology staff tracked a number of numeric criteria including acres of riparian area planted, linear feet of stream restored, feet or miles of exclusion fencing, acres of conservation tillage. Staff also tracked and reported on the success of the Watershed evaluation efforts including number of sites contacted, number of plans developed, number of sites brought into compliance, etc.
- **Completed Monitoring Program on 4b Waterways:** A monitoring effort on Deadman Creek, Meadow Creek, Alpowa Creek, Asotin Creek (sample locations at mouth of Asotin Creek, George Creek, as well as North and South Forks), Tenmile Creek, and Couse Creek the 4b listed Straight to Implementation waterways was completed in 2024 and the data collected represents samples from a full water year. Continuous temperature loggers were deployed at each site location; and twice a month pH measurements and *E. coli* samples were taken. The data collected was compared to previously documented impairments and analyzed with the non-point BMP implementation information. Comparing the tracked implementation data with the water quality data will help to evaluate the effectiveness of BMP implementation, and direct where future focus is needed. This data was summarized in the 2024 Water Quality Assessment.
- **Began TMDL Data Collection for Pataha Creek:** A monitoring effort on Pataha Creek started in 2024 and will continue for a full water year. Data will be collected on current levels of bacteria, dissolved oxygen, and pH. Additional information on temperature and turbidity will also be measured.

Priority Watershed: Walla Walla Watershed

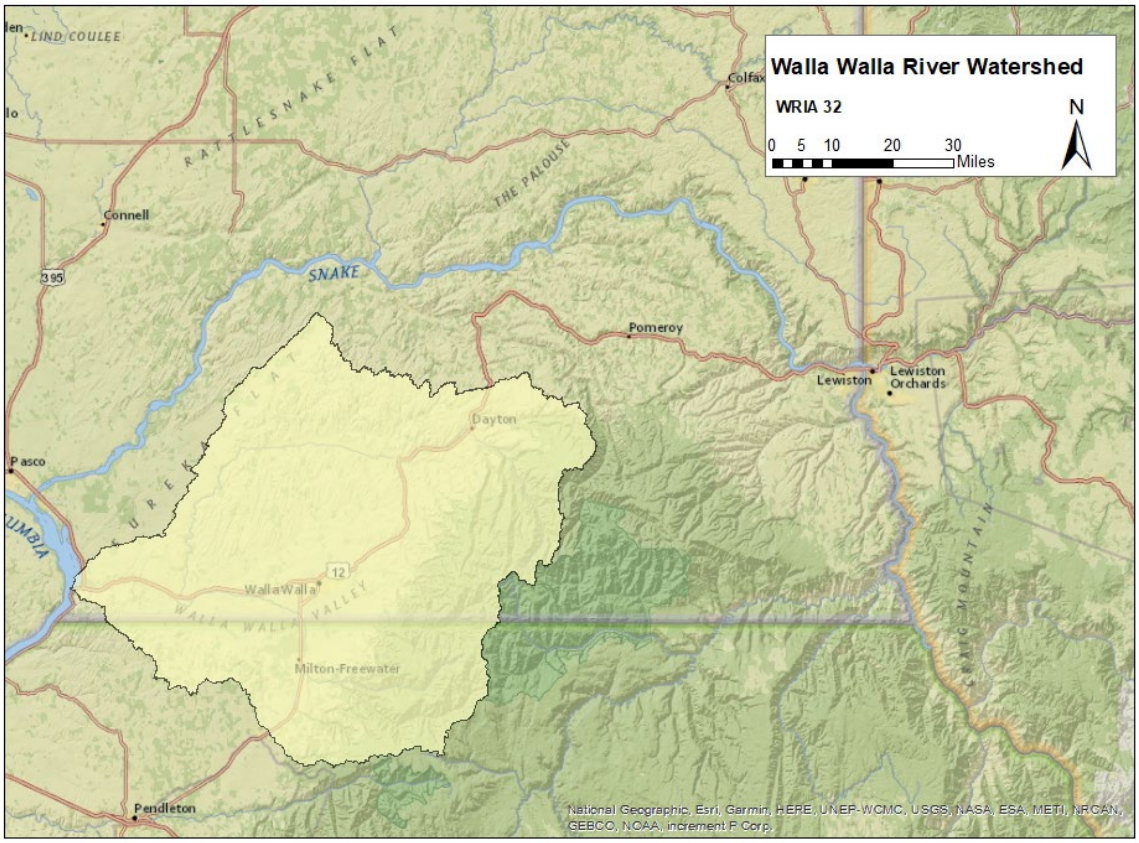

Figure 33. Map of the Walla Walla River Watershed

Implementing: Walla Walla River Watershed Multiparameter TMDLs (Bacteria, Temperature, pH, DO, Toxics)

Summary/Context Info:

The Eastern Region is continuing to implement the Walla Walla Watershed Multiparameter TMDL Water Quality Implementation Plan. A recent effectiveness monitoring study was completed in the Watershed. Ecology has been active throughout the Watershed through collaborating with partners, funding restoration projects, and identifying new and ongoing water quality concern sites through annual Watershed evaluations. The evaluations identify parcels with pollution problems. Regional staff then work with landowners and local partners to implement appropriately sized riparian buffers.

Priority Actions Completed in 2024:

Education and Outreach

- **Participated in Policy, Funding and Outreach (PFO):** PFO is a subgroup within the Walla Walla 2050 effort. This work group is comprised of local organizations and interested community members, focused on implementing public engagement and education.

Financial Assistance

- **Completed the Walla Walla County Conservation District, Last Chance Road Restoration at RM 35.5 Project ($462,956):** The last year of this project continues restoration of the Walla Walla River by installing bio-engineered structures to increase pooling and planting trees to cool the water temperature in the reach.
- **Implemented the Walla Walla County Conservation District Touchet River Mile 42 Restoration Project ($480,000):** The project will restore a 1.4-mile reach of the Touchet River west of Waitsburg, WA. Phase 1 restoration activities will include installing engineered log jams, pile fields, and other large woody material; completing a pilot channel cut; and enhancing a riparian buffer. Project outcomes include improved water quality and salmonid habitat, and floodplain resiliency.
- **Implemented the Walla Walla County Conservation District Touchet River Mile 35 Restoration Project ($500,000):** The project will restore a one-mile reach of the Touchet River west of Prescott, WA. Phase 1 restoration activities include installing in-stream and bank bio-engineered log structures, enforced log jams, and other large woody material; completing side channel pilot cuts; and planting bank vegetation. Project outcomes include increased shade, floodplain inundation, sediment deposition, and side channels, which will improve water and salmonoid habitat quality.
- **Implemented the Walla Walla County Conservation District, *Mill Creek Debris Removal Project* ($49,750):** This grant was funded by water quality penalties money, and was a priority to the local community. The grant removed and disposed of an abandoned house from that was washed into Mill Creek following a destructive flood in 2020. The house debris in the channel was continuing to deposit waste downstream, and was originally reported as an ERTS that became a collaborative effort to address.
- **Implemented the Walla Walla County Conservation District, *Dry Creek Riparian Enhancement and Erosion Control* ($54,307):** This grant was funded by water quality penalties money, and helped to address severe bank erosion where floodplain reconnection is not able to occur. A gap in riparian vegetation left a section of Dry Creek vulnerable to erosion, this grant funded a soft structure to stabilize the bank and plant a woody riparian buffer to protect the channel integrity into the future. This project site is a historic CREP contract, and has good floodplain connection downstream. Where the erosion was occurring was a threat to water quality due to the adjacent land use.
- **Implemented the Walla Walla County Conservation District, Canopy Cover Improvements on the Touchet River – Phase 2 Project ($312,864):** This grant continues work to address temperature issues in the Touchet River by removing invasive false indigo and planting 2.5 miles of riparian vegetation. This grant is active through 2025.
- **Implemented the Kooskooskie Commons, Water Quality Improvements on Yellowhawk Creek Project ($317,886):** This grant supports implementation of a riparian restoration program along Yellowhawk Creek and the Walla Walla River to address temperature and fecal coliform impairments resulting from legacy agricultural practices. Kooskooskie Commons will install native riparian buffers, monitor water quality, perform public

outreach, and explore land trust easements for long-term protection of riparian areas and water trust agreements to protect flows and cold-water inputs to the stream. This grant is active through 2025.

- **Implemented the Walla Walla County Conservation District Lower Mill Creek RM 4.0 ($495,600):** The project will restore a 0.5-mile stretch of Mill Creek, a tributary of the Walla Walla River in southeast Washington, thereby improving its ecological function and addressing existing temperature, dissolved oxygen and turbidity water quality impairments. Restoration activities include installing logjam and habitat structures, reconnecting side channels, and planting riparian vegetation.

Partner Coordination

- Hosted Meetings with the Walla Walla County Conservation District: Ecology staff work closely with the conservation district staff in planning and implementing Ecology grant funded projects.
- Participated on the Snake River Salmon Recovery Board (SRSRB) Regional Technical Team: Ecology works with various parties involved in salmon recovery efforts in Walla Walla. As a lead entity voting member and a member of the Regional Technical Team, Ecology assists with the SRSRB annual grants and provides technical assistance to the group for water quality issues.
- Participated in the Snake River Local Working Group: Ecology staff participate in this basin wide working group focused on challenges and solutions to the greater Snake River Watersheds.
- Participated in Walla Walla 2050 Efforts: Ecology's Office of the Columbia River are partnering with local groups in the Walla Walla Watershed to develop new ways to protect water resources, water quality, and habitat. Ecology staff participated in workgroups and drafting of plans focused on water quality aspects of this effort.

Pollution Identification/Watershed Evaluation

- Performed Annual Watershed Evaluations: Surveys were conducted during the early spring season of 2024 that identified livestock water pollution issues. Work was focused on the Walla Walla River main stem and various tributaries including Pine Creek, Mud Creek, West Little Walla Walla River, East Little Walla Walla River, Garrison Creek, Cottonwood Creek, Russel Creek, Dry Creek, Spring Creek, Coppei Creek, Touchet River, and Patit Creek.

Compliance/Technical Assistance Activities

- **Followed up on Non-point Complaint Sites:** Ecology staff contacted valid compliant sites with non-point pollution issues and scheduled site visits that provided technical and financial assistance. Phone calls and/or letters followed with the goal of developing a plan for water quality protection and implementing the plan.
- **Contacted Three Priority Pollution Sites:** One new landowner with livestock water quality issues was contacted via technical and financial assistance letters. All letters were

followed up with multiple phone calls (if a contact number is available) throughout the year to ensure continued communication with the landowner.

Monitoring Activities

Partnered with Kooskooskie Commons to Collect Baseline Water Quality Data: Yellowhawk Creek, Caldwell Creek, Russell Creek, Whitney and Lasiter Spring Creek, and the West Little Walla Walla Creek were monitored. The hope is to continue examining this unique Watershed and spring upwelling effects on temperature, DO, pH, conductivity, turbidity, and fecal coliform.

3.1.3 Complaint Response

Nonpoint specialists across the state use a similar approach to complaint response as in Watershed evaluation work. In contrast to Watershed evaluation work, in which nonpoint staff have focal Watersheds they work within, staff respond to environmental complaints within all Watersheds in their region. We first verify the complaint in the field by confirming the water quality problem. We then document the water quality problems and reach out to the owner of the site offering technical and financial assistance to implement appropriate fixes. Our regulatory tools serve as a backstop if water quality pollution problems cannot be addressed with proactive assistance.

During 2024, Ecology responded to a multitude of nonpoint source pollution related complaints received by our agency. Complaints, and follow-up to complaints, were tracked in the agency's Environmental Reporting and Tracking System (ERTS). Ecology receives a variety of complaints about a wide range of nonpoint activities including, but not limited to:

- Livestock
- Dairy/Waste
- Debris/Garbage
- Mud/silt/sediment/turbidity
- Herbicide/pesticide application
- Fertilizer
- Manure
- Tillage Pollution
- Stream Dredging

In total, Ecology nonpoint staff responded to 58 agriculture-related ERTS complaints and received 247 other types of nonpoint complaints across the state.

3.1.4 Support No Discharge Zone Implementation for Puget Sound

In 2024, Ecology continued to implement the Puget Sound Vessel Sewage No Discharge Zone (NDZ) rule, which was adopted on April 9, 2018, and effective from May 10, 2018, under Chapter 173-228 WAC. The NDZ includes marine waters of Washington State inward from the line between New Dungeness Lighthouse and the Discovery Island Lighthouse to the Canadian border, and fresh waters of Lake Washington, Lake Union, and the connecting waters between and to Puget Sound.

Figure 34. No Discharge Zone signs used to educate boaters accessing Puget Sound

The NDZ prohibits the discharge of sewage, treated or untreated, from vessels within the zone. All vessels must store their sewage until it can be safely disposed of at an onshore or mobile pumpout facility or until they are outside the NDZ and beyond three miles from shore. As of May 10, 2023, it is also illegal for commercial vessels to discharge sewage into Puget Sound. Ecology has actively reached out to the commercial vessel sector to ensure compliance with the rule and has provided detailed information on pumpout options available for these vessels.

Outreach and Education: To ensure compliance and raise awareness about the NDZ, Ecology continues to employ multiple outreach strategies to effectively communicate NDZ messages to the boating community.

NDZ Committee Leadership: Ecology continues to lead the Vessel Sewage Education Team to facilitate the implementation of the NDZ and collaborates closely with partners to disseminate information about the rule.

Pump Out, Don't Dump Out Campaign: Ecology continued to implement the Pump Out, Don't Dump Out campaign[17] over the spring and summer of 2024. This campaign used social media,

[17] https://ecology.wa.gov/ecologys-work-near-you/river-basins-groundwater/puget-sound/no-discharge-zone/pump-out-dont-dump-out

magazine ads, infographics (visually describing why the NDZ matters), a video[18], blog post and the existing Pumpout Nav app[19] to educate boaters about the importance of the NDZ. The updated Pumpout Nav app shows the NDZ boundary and rule. The app was updated to include mobile pumpouts. The program's website provided up-to-date information and resources. Interactive content on social media, such as quizzes and infographics helped engage visitors and reinforced key messages.

Boating Events Outreach: Ecology provided information about the NDZ at numerous boating events, such as the Sea Fair Fleet Week, Seattle Boat Show, Anacortes Boat Show, Wooden boat show and many more. NDZ information booths were set up to distribute educational materials and answer boaters' questions.

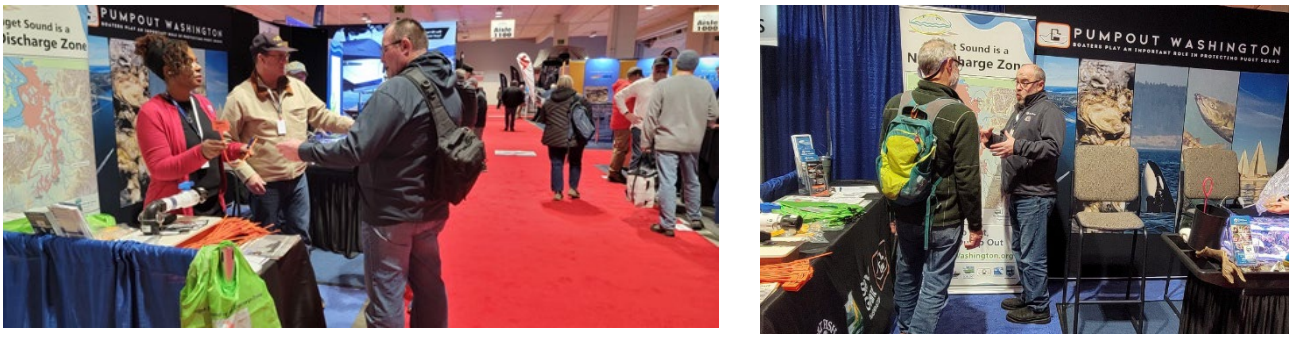

Figure 35. No Discharge Zone booths at the 2024 Seattle Boat Show

Signage and Educational Materials: Ecology continued to distribute the aluminum signs to marinas and boat launch facilities free of charge thanks to the Clean Vessel Act grant funding. These signs serve as constant reminders to boaters to comply with the NDZ.

Figure 36. No Discharge Zone signs posted at marinas

[18] https://www.youtube.com/watch?v=wIwd37N1l4s
[19] https://apps.apple.com/us/app/pumpout-nav/id1148752109

Additionally, thousands of educational materials, including Zip ties, placemats, rack cards, and brochures, were handed out to marinas for their tenants. These materials provided clear information on NDZ rules and steps boaters could take to comply.

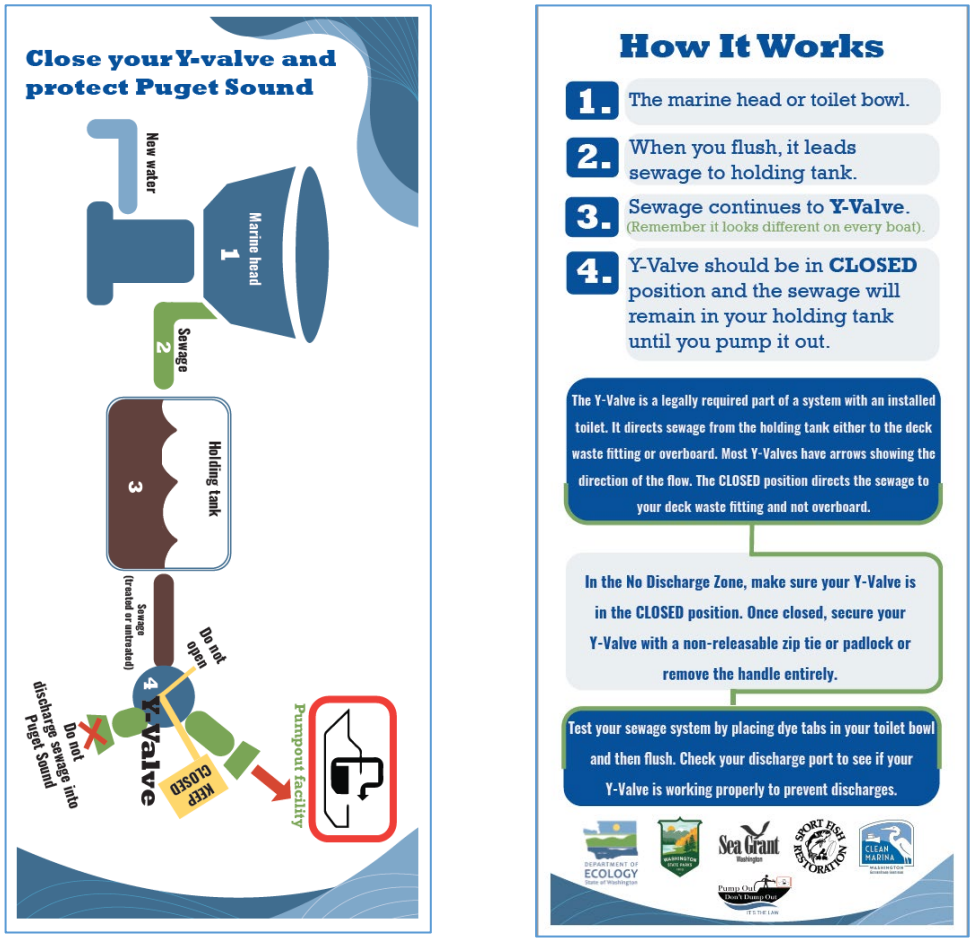

Figure 37. Example of educational material: double-sided brochures used to educate boaters.

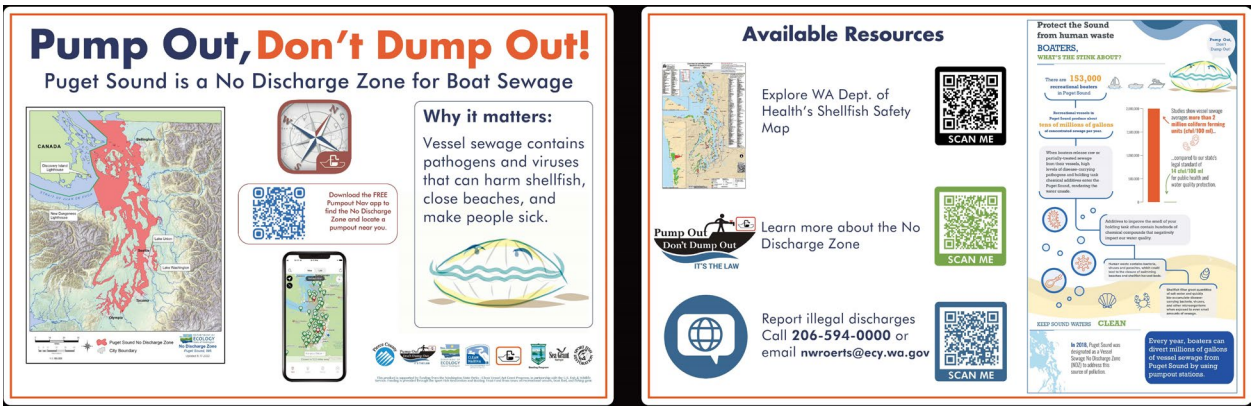

Figure 38. Front-and-back placemat used to educate boaters about the No Discharge Zone.

Figure 39. NDZ branded materials — a tote bag and a pamphlet of maintenance tips — used to educate boaters

Y-Valve Education Pilot Program: Ecology developed the resources needed to implement the Y-Valve Education Pilot Program[20]. The program is designed to help participating marinas and yacht clubs educate boaters about their Y-Valves, marine sanitation devices, and best practices for managing blackwater. Complimentary resources such as dye tabs, zip ties, sample NDZ lease language and signage are provided to participating marinas and yacht clubs. The program is scheduled for full implementation in the 2024 boating season, with several marinas and yacht clubs already recruited to participate.

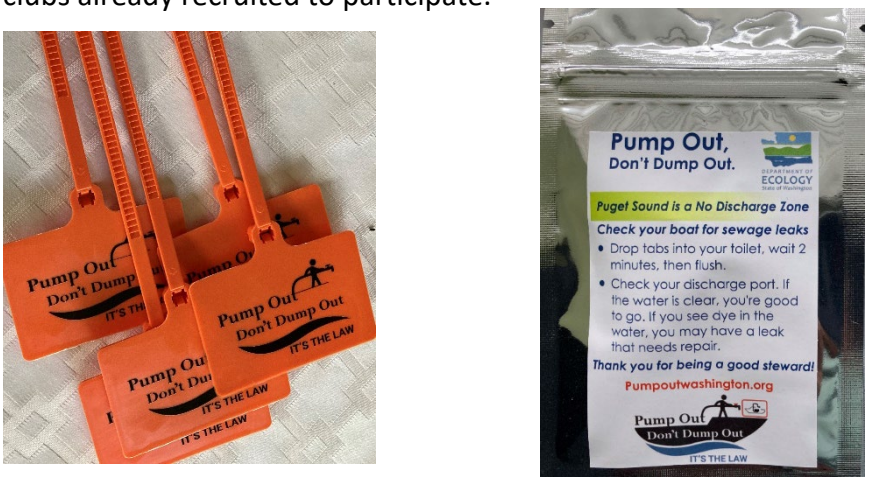

Figure 40. An example of a branded Zip tie and dye tablets

[20] https://ecology.wa.gov/ecologys-work-near-you/river-basins-groundwater/puget-sound/no-discharge-zone/pump-out-dont-dump-out/y-valve-education-pilot

Advertisements in Boating Magazines: Ecology placed a series of engaging and informative advertisements in popular boating magazines. These ads highlighted the importance of NDZ compliance and directed boaters to resources for more information.

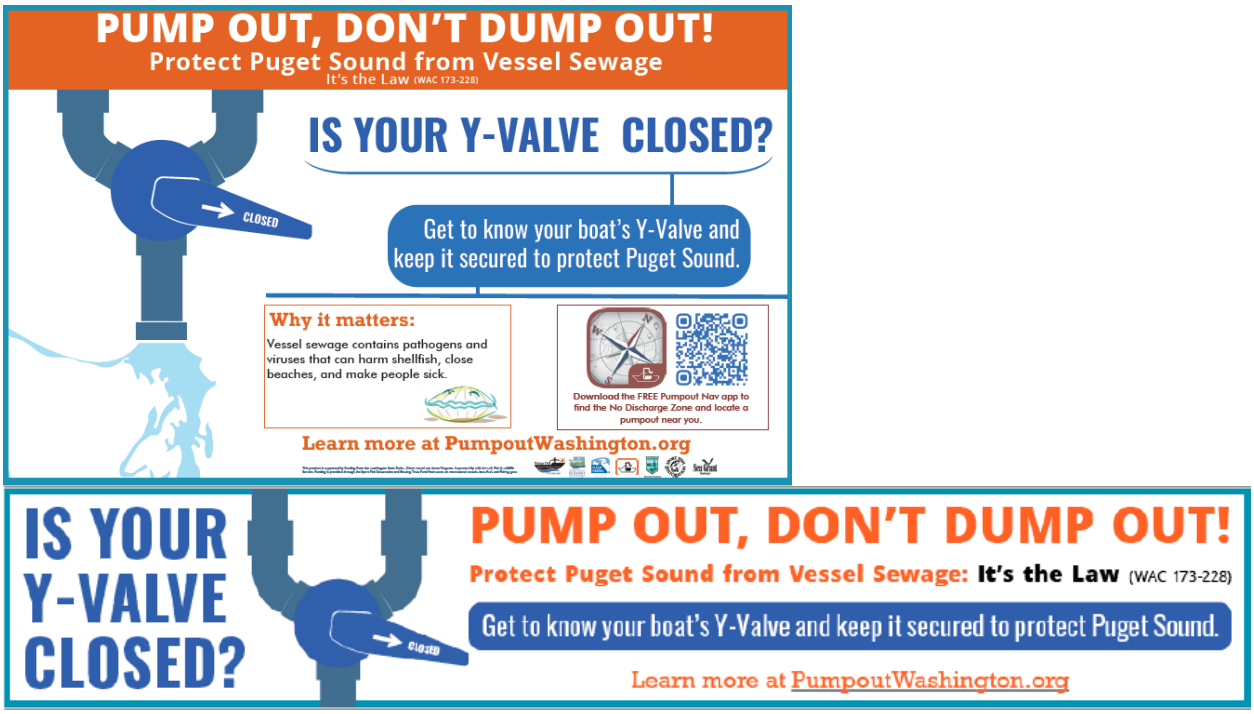

Figure 41. Examples of print and web magazine ads

The No Discharge Zone Education and Outreach Program successfully raised awareness and promoted compliance with NDZ rule among boaters. By using a multi-faceted outreach approach, the program effectively communicated the importance of protecting Puget Sound from vessel sewage discharge. Continued efforts and ongoing engagement with the boating community are crucial in maintaining momentum and ensuring the long-term success of the NDZ rule.

No Discharge Zone Education Program Evaluation

Evaluation is a critical component of any behavior change program, as it provides the evidence needed to measure impact, assess progress toward goals, and guide strategic adjustments to improve effectiveness over time. In 2024, we hired an Evaluation Consultant to conduct a comprehensive evaluation of the NDZ Education program.

This evaluation will assess the program's outputs, outcomes, and overall impact, focusing on its effectiveness in raising boater awareness of the No Discharge Zone (NDZ) rule and influencing behavior change.

The results of this evaluation will inform future improvements to the program, enhancing its success and increasing compliance. The results of this evaluation will be published in January 2026.

NDZ Enforcement

In 2021, Ecology finalized the first NDZ Enforcement Strategy which includes an Enforcement Plan, supporting documents such as an example County marine sewage ordinance, and suggestions for how each partner agency could play a role. Ecology also provided training to our SWRO and NWRO ERTS Coordinators, so they are better equipped to ask vessel-specific questions when documenting a report of potential or actual vessel sewage discharge within the NDZ. In 2022, Ecology worked with municipalities to conduct education and outreach as well as monetary penalties in response to several vessel discharge reports. When Ecology receives ERTS, we coordinated with our municipal partners and conduct enforcement as needed.

On November 30, 2020, the United States District Court Judge for the District of Columbia remanded the administrative record to EPA for further consideration on the American Waterways Operator's appeal of EPA's determination that allowed the establishment of the Puget Sound NDZ. The District Court ordered EPA to further analyze cost and treatment considerations within 90 days. The District Court also ruled that the NDZ will continue to be in place while EPA gathers additional information). As a result of the court order, Ecology worked diligently in December 2020 to prepare the additional information requested by EPA, which focused on the treatment of pumped vessel sewage and on costs associated with pumping and disposal. On March 1, 2021, EPA filed a status report informing the Court that it had completed its further consideration of the issues set forth in the summary judgment order. Based on that further consideration, EPA reaffirmed its determination[21] that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available in Puget Sound. In February of 2022, the US District Court in Washington, D.C., upheld the NDZ ending the court challenge.

More information about the Puget Sound NDZ, including guidance for recreational and commercial boaters, can be found on the NDZ webpage[22].

Figure 42. No Discharge Zone logo created by the Washington Department of Ecology

[21] https://ecology.wa.gov/blog/march-2021/no-discharge-zone-continues-to-protect-puget-sound
[22] https://ecology.wa.gov/ecologys-work-near-you/river-basins-groundwater/puget-sound/no-discharge-zone/pump-out-dont-dump-out/y-valve-education-pilot

3.1.5 Support implementation of the Dairy Nutrient Management Program; Ecology and WSDA continue to work on the gaps identified in the Dairy Nutrient Management Act

In 2024, the Department of Ecology (Ecology) and Washington State Department of Agriculture (WSDA) continued to operate under a Memorandum of Understanding (MOU) to address livestock-related water quality issues. The MOU was established as a coordinating document, to address Ecology and WSDA's overlapping regulatory responsibilities for water quality compliance related to livestock activities, namely dairy operations.

In 2024, the WSDA Dairy Nutrient Management Program (DNMP) notified Ecology staff that one dairy discharged to state waters. When former dairy facilities have cancelled their milking license and Ecology is notified, nonpoint staff will provide follow-up technical assistance and work to ensure management of livestock and manure on the site is adequate to protect nearby surface water. Agency staff also continue to coordinate and collaborate in efforts to address livestock and manure-related nonpoint source pollution issues.

An ongoing challenge that Ecology and DNMP staff continue to coordinate on is the export of dairy manure to non-dairy agricultural fields. These applications are not regulated under DNMP, and it is a challenge to ensure that exported material is handled using responsible manure management practices that prevent discharges to waters of the state.

3.1.6 Support Education and Outreach

To support the work of our staff, on-the-ground partners, and landowners/operators, we will develop outreach materials for each chapter of the CWG. The first outreach resource we are developing is for the chapter on Riparian Areas and Surface Water Protection. The guide is intended to help landowners understand Ecology's BMP recommendations and assess for themselves what management strategies best fit their land's needs while still being compliant with state water quality laws. In 2024, we continued work on this "Riparian Buffer Implementation Guide" and we anticipate completing this guide in 2025. We plan to prioritize additional CWG chapters for the development of guides and other educational resources to clearly communicate the information of the CWG to the public in a variety of modes.

In 2024, we developed draft updates to Ecology's Nonpoint webpages, which went live in 2025.

Updates include:

- Information about nonpoint pollution sources and solutions, with a page dedicated to temperature pollution in Washington state.
- Information on how our regional field staff work in Watersheds and the state's Water Pollution Control Act.
- Resources for landowners, operators, and partners to learn more about BMPs that will support compliance with state water quality law.
- Links to the Nonpoint Program's Annual Reports to EPA, which provide information on the past year of work, such as discussion of grants awarded, BMPs implemented, and

which Watersheds nonpoint staff are focusing work and what has been accomplished in the past year, as well as what is planned for the upcoming year.

In addition to the development of outreach materials, the program prioritized outreach throughout the past year. Hiring two additional Nonpoint Educational Specialists out of our regional offices, we began efforts to update existing and create new outreach resources and continued joining community events and offering language translation services to support widespread understanding of our recommendations and program, including financial assistance tools to implement clean water solutions on the ground. A summary of outreach efforts by our staff include:

- Participation in school and community events.
- Support for meetings with local community members and partners.
- Participation in local and statewide conferences.
- Development of newsletters, handouts, and other educational materials.
- Continued use of accessibility and inclusion standards, including language translation services.

3.2 Goal 2: Ensure Clear Standards

3.2.1 Identify best management practices (BMPs) and measures designed to comply with the Water Quality Standards and contribute to the protection of beneficial uses of the receiving waters and ensure compliance with state and federal law. Utilize best available science.

See section 3.2.4 for updates on Ecology's progress toward using best available science to identify Best Management Practices that comply with Water Quality Standards, contribute to the protection of beneficial uses of the receiving waters, and ensure compliance with state and federal law.

3.2.2 Implementation of forest practices rules statewide: periodic reviews of the Forest Practices Rules adaptive management program and the Clean Water Act Assurances.

Ecology helps ensure that the Forest Practices Rules are effective in protecting water quality and meeting federal and state water quality standards. These rules help protect streams, wetlands, and other bodies of water in or near forest areas and in-stream fish habitat.

Ecology provides:

- Field inspectors to help the Department of Natural Resources ensure rules are followed.
- Forest practices effectiveness monitoring and policy analysts who participate in the Forest Practices Adaptive Management Program (covered in section 3.2.3).
- The Forest Practices Rules provide standards to:
- Preserve trees in streamside areas to keep the water cool, filter sediment from uplands, and keep streambanks stable.

- Improve in-stream fish habitat by providing woody debris and controlling pesticide use near water bodies.
- Encourage proper construction and care of forest roads to prevent silt and sediment from entering water.

In 2024, regional staff/inspectors engaged in the following activities to support the implementation and enforcement of the forest practice rules:

- Participated in field review and data collection of forest practice activities to determine compliance with rules and approved Forest Practices Applications (FPA). Inspectors worked throughout all six DNR Regions. Prior to field visits inspectors conducted in-office FPA reviews.
- Reviewed individual Forest Practices Application proposals.
- Reviewed and provided input on Compliance Monitoring Program reports and documents and participated in site-compliance inspections.
- Participated in meetings and work sessions to implement a stream typing prioritization plan and procedures for coordinating between landowners and reviewers prior to stream protocol surveys.
- Performed field inspections of selected streams, providing concurrence or recommendations for alternate points to be used to define where fish habitat exists, and where the end of perennial water occurs in order to apply different harvest prescriptions.
- Provided staff to assist DNR in evaluating readiness of counties to assume jurisdiction for forest practices within their urban growth boundaries.
- Collaboratively participated with DNR, and WDFW staff and representatives of affected Tribes, to identify the need for and participate in interdisciplinary teams and field inspections for conducting site-specific evaluation of compliance with the forest practices rules.
- Responded to citizen reports of environmental harm, submitted via the statewide Environmental Report Tracking System (ERTS), to address reports related to individual forest practices activities.

3.2.3 Forest Practices

Under Washington state law (Chapter 90.48 RCW) forest practices rules are to be developed to achieve compliance with the state water quality standards and the federal Clean Water Act (CWA). Ecology established Clean Water Act assurances (CWA assurances) for the state's forest practices program in 1999 as part of the Forests and Fish Report (FFR) and subsequent legislation known as the Forests and Fish Law. This legislation amended the existing Forest Practices Act (Chapter 76.09 RCW).

The CWA assurances established that the state's forest practices rules and programs, as updated through a formal adaptive management program, would be used as the primary mechanism for bringing and maintaining forested Watersheds into compliance with the state water quality standards.

Taken in total, the forest practices Adaptive Management Program (AMP) provides a substantial framework for ensuring forest practices are complaint with the water quality standards. In 2009, as part of a review of the AMP, Ecology concluded it is in the best interests of water quality, and is consistent with legislative intent, to work together with cooperating agencies and local entities to make needed improvements to the existing program. Ecology therefore conditionally extended the CWA assurances with the intent to stimulate the needed improvements to the forest practices program and AMP.

Ecology, in consultation with key engaged parties, established specific corrective milestones. The extension of these assurances was conditioned on meeting these administrative and research milestones by the specific target dates described. With these corrective milestones in place, Ecology extended the CWA assurances until 2019.

Progress towards completing the remaining corrective milestones has remained slower than intended but continued to move forward. The causes of not meeting the scheduled target dates include new and competing priorities; such as, the additional work related to ensuring forestry is not increasing the risk of mass wasting, work on a large proposal to establish separate requirements for small forest landowners, and a renewed focus on developing field methods for identifying points on streams that represent the end of fish habitat (with fish habitat receiving higher protection under the rules).

On December 2, 2019, Ecology Director Bellon sent a letter to the Forest Practices Board (available upon request) granting a second extension for two years (ending December 2021) based on the completion or near completion of several key Type N research projects providing enough information for the board to consider new rulemaking with regard to riparian buffers on non-fish bearing perennial waters. As a result of the completion and acceptance of one of the studies a technical workgroup was contracted to develop recommended harvest prescriptions to help inform rule making. The workgroup completed its work and presented the final report to TFW Policy at the June 2021 Policy meeting.

On February 23, 2021, the Washington State Auditor's Office issued a performance audit report describing issues that continue to plague the AMP. The Auditor's Office concluded that the program is not "operating as intended" and that, without needed changes, the "program would continue to languish." The Audit Report contains several recommendations designed to get the program on track so that it can perform its functions as intended. The Forest Practices Board (Board) has committed to addressing many of these recommendations and the Department of Natural Resources included a funding request in 21-23BN budget.

In consideration of the continued progress at Policy and the Boards commitment to the Auditors Report Ecology Director Watson issued in a memo to the Board (available on request), an additional one-year extension of the CWA Assurances. This extension was contingent on the AMP making measurable progress on implementing the 2021 Audit Report and Policy making a final recommendation on Type Np buffer prescriptions to the Board, with the Board directing staff to develop a rule package and prepare a CR102.

Despite a lengthy dispute resolution process, where a consensus recommendation to the Board was not reached, a minority and majority report were forwarded to the board for consideration at their November 2022 meeting. The board chose to move the majority recommendation forward for draft rule development and CR102. Additionally, the adaptive management program has been making steady progress on program and process improvements as recommended in the SAO Audit Report. Due to these measures of the 2021 extension by Director Watson, Ecology has extended the assurances pursuant to progress related to the Type Np CR 102 development, leading the board to approving new Type Np prescriptions that, if adopted into rule will provide greater protection to stream temperature than the current rule.

Appendix B – Appendix B shows a table of corrective milestones, and their status as was reported to the Washington Forest Practices Board at their August 2024 meeting. There have been no significant changes to the status of the corrective milestones since the last report.

3.2.4 Agricultural — Voluntary Clean Water BMP Guidance

The development of clear, standalone, clean water BMP guidance for agricultural sources is a key enhancement for our nonpoint source (NPS) pollution program. The Voluntary Clean Water Guidance for Agriculture (Clean Water Guidance/CWG) is intended to be a technical resource for the agricultural community and to complement existing guidance on agricultural conservation practices, such as the Natural Resources Conservation Service's (NRCS) Field Office Technical Guides (FOTGs). Compared to other guidance documents, its focus is on how BMPs can protect water quality and support meeting the Washington state water quality standards.

Ecology's goal is to run a process that interested parties and local groups believe is fair, inclusive, and respectful, that will result in robust, scientifically based guidance which farmers will be amenable to implement, and that will meet water quality standards by preventing pollution discharge at the parcel level. We are developing the guidance in a series of chapters with ongoing collaboration from an advisory group. The advisory group includes representatives from the National Resources Conservation Service (NRCS), Conservation Districts, Washington State Department of Agriculture, State Conservation Commission, Washington State University, farmers, dairies, cattle groups, US Environmental Protection Agency, the Washington State Department of Fish and Wildlife, the Northwest Indian Fisheries Commission, and other agricultural and conservation experts.

The guidance's focus is on inventorying existing BMPs, refining those BMPs (if needed), and then assembling the BMPs into combinations that adequately address all sources of pollutants for a particular land use. The guidance will cover a range of conservation practices and include topics such as nutrient management, sediment control, water management, livestock management, and riparian buffers. Each chapter will address different conservation practices and provide information on:

- Practices that best prevent water pollution and protect water quality.
- How well BMPs perform in reducing specific pollutants.
- Considerations for when implementing BMPs, such as costs and equipment requirements.

Currently, five chapters have been submitted and are supported by EPA:

- Cropping Methods: Tillage and Residue Management
- Livestock Management: Pasture and Rangeland Grazing
- Sediment Control: Soil Stabilization and Sediment Capture (Structural)
- Riparian Areas and Surface Water Protection
- Livestock Management: Animal Confinement, Manure Handling, and Storage (accepted by EPA in July 2023)

Remaining chapters, to be completed by December 31, 2025, include:

- Cropping Methods: Crop Systems
- Nutrient Management
- Pesticide Management
- Sediment Control: Soil Stabilization and Sediment Capture (Vegetative)
- Water Management: Irrigation Systems and Management
- Water Management: Field Drainage and Drain Tile Management
- Runoff Control from Agricultural Facilities
- Suites of Recommended Practices

These scientifically based guidance chapters provide assurances for landowners; when landowners and operators implement practices that are consistent with the BMPs included in the CWG, it is presumed that water quality is adequately protected and the site is compliant with state and federal law. The guidance is utilized by regional field staff to inform recommendations given to agricultural landowners needing to make improvements to address nonpoint source pollution from their operations. Additionally, this guidance is used to inform the development of new TMDLs, ARPs, STIs, and associated implementation plans.

See section 3.1.6 for information about our outreach strategies related to the Clean Water Guidance.

More information on the BMP guidance[23] and the advisory groups can be found at the Voluntary Clean Water Guidance for Agriculture webpage[24].

[23] https://apps.ecology.wa.gov/publications/SummaryPages/2010008.html
[24] https://ecology.wa.gov/about-us/accountability-transparency/partnerships-committees/voluntary-clean-water-guidance-for-agriculture-adv

3.3 Goal 3: Develop and Strengthen Partnerships

3.3.1 Strengthen Relationships and Receive Input

Ecology recognizes the need for strong partnerships and input from interested parties, partners, and the public to effectively implement our nonpoint source program. Many of those efforts are detailed in other sections of this report.

Nonpoint Plan Update Outreach and Engagement

With the next update of Washington State's Management Plan to Address Nonpoint Sources of Pollution (Nonpoint Plan) due by December 31, 2025, we made significant progress in 2024 towards that update. We spent considerable time and effort on outreach and engagement with partners, local and interested entities, and Tribes, summarized below:

- In January of 2024, via individualized emails, we notified Tribal water quality staff throughout the state that the process to update the Nonpoint Plan was underway, and offered to meet with Tribal staff to share about the Nonpoint Program, the NP Plan update, and to listen and learn from Tribes about their work to address nonpoint pollution, including their challenges and priorities for the future. On March 1, 2024, we sent a follow-up email, re-sharing our offer to meet. Though there was limited response from Tribal staff, during the spring of 2024 we met with three Tribes, as well as Policy Analyst staff at Northwest Indian Fisheries Commission, and representatives from the WA Conservation Action nonprofit.
- In September 2024, EPA coordinated a meeting with their 319 program staff for Washington State, Tribal water quality staff, and Ecology's nonpoint headquarters staff, with the goal of sharing on Washington's nonpoint program and Nonpoint Plan update efforts.
- Ecology NP policy staff presented at the October 2024 biannual Tribal webinar organized by Ecology's Watershed Management Section, and at the October Agriculture and Water Quality meeting, to share about EPA's updated guidance for the 319 program, significant updates to the Nonpoint Plan, and timeline for the 2025 Nonpoint Plan update.
- From December 2024 through February 2025, we met with staff from the Departments of Health, Agriculture, and Fish and Wildlife, as well as the State Conservation Commission.
- In addition to presentations and one-on-one meetings, in 2024 we also developed a survey to solicit feedback from partners such as CDs, counties, salmon recovery groups, and Tribes. With these surveys, which were developed in 2024 and shared in 2025, we hope to get a better sense of the nonpoint issues these groups encounter, how they work with Ecology staff to address nonpoint issues, and how/whether they are using the BMPs within the Clean Water Guidance. We are also looking to gather lessons they have learned as they work to address nonpoint pollution and any innovative approaches taken. Depending on response rates and the success of this survey to solicit feedback, we hope to include discussion of these survey results in the 2025 Nonpoint Plan update.

3.3.2 Agriculture and Water Quality Advisory Committee

The Agriculture and Water Quality Advisory Committee was established to provide the Ecology Director with a direct line to producers and producer groups to discuss how we can both support a healthy industry and protect clean water. The committee provides input to help guide the director's efforts to improve Ecology's relationship with the agricultural community and inform us on how we can do our work to better respond to concerns from producers. A broad array of agriculture entities participates on our committee.

This committee provides an open forum for agriculture producers and environmental interest groups to meet our staff and learn about our work. They provide valuable feedback as we tackle the challenge of insuring that working lands keep working in an environmentally friendly way.

In 2024, the committee held a hybrid meeting on May 2 and a virtual meeting on October 11. The committee has been successful at further improving our agency's relationship with the agricultural community and creating a more positive environment to implement our nonpoint program including increased acceptance and support for our Watershed evaluation and TMDL implementation work, and support for the creation of the Voluntary Clean Water Guidance for agriculture.

During the May meeting, the agenda included:

- Field tour at Prosser USDA Agricultural Research Services worksite:
  - Deep soil sampling as an assessment tool
  - Vineyard deep groundwater sampling project
- Sackett Court Decision and Request Legislation for Dredge and Fill Permit Program
- Climate Commitment Act Agriculture Fuel Exemptions
- Regional nonpoint work and priorities
- 2025 statewide nonpoint plan update
- Permit Updates: CAFO general permit, aquatic mosquito control general permit, winery general permit, irrigation general permit
- Lower Yakima Valley Safe Drinking Water Project FDA Food Safety Management Act Proposed Rule on Agricultural Water

At the October meeting, the agenda included:

- Regional nonpoint work update
- 2025 statewide nonpoint plan update
- Ecology regional nonpoint priorities and recently funded projects
- Discussion on Ecology legislative budget requests Discussion on Riparian Roundtable perspectives

You may view more detailed information on each meeting and the committee on the Agriculture and Water Quality Advisory Committee webpage[25].

3.3.3 Financial Assistance Council (FAC) and Water Quality Partnership (WQP)

The FAC and WQP continue to be key forums for informing interested parties on our nonpoint program. These groups continue to be successful in helping us coordinate and build relationships with key partners and collaborators.

The FAC is convened by Ecology and consists of a group of representatives from cities, counties, tribes, conservation districts, special purpose districts, environmental groups, and state and federal agencies to provide Ecology Water Quality Financial Management Section advice and guidance for the effective and efficient administration of state and federal grant and loan programs. Ecology held 2 FAC meetings in 2024 on March 21st and September 18th. For more information see the FAC webpage[26].

The Water Quality Partnership is the standing engagement group for Ecology's Water Quality Program, with the goal of helping the WQ Program to maintain a dialogue with key interests and to give those key interests regular access to decision makers in the WQ Program. We held three WQP meetings in 2024 in March, June, and November. Please visit the Water Quality Partnership webpage[27] for more information on meetings.

3.3.4 Puget Sound Nutrient Forum (Forum)

This effort focuses on building and strengthening relationships with regional entities, Tribes, the regulated community, industry, and the public. Nutrient management efforts in other large U.S. coastal estuaries have emphasized the importance of focused engagement to build a common understanding of nutrient over-enrichment problems and potential solutions. We believe that a successful outcome for Puget Sound will rely in large part upon this engagement process, and the feedback we have received from attendees has been largely positive.

We did not host any Forums in 2024 while we focused on our modeling efforts and drafting the Puget Sound Nutrient Reduction Plan. We plan to host multiple Forum meetings in 2025, which will focus on presenting the final round of Salish Sea modeling results, an overview of the contents of the Nutrient Reduction Plan and the 2027 preliminary draft General Permit requirements.

[25] https://ecology.wa.gov/about-us/accountability-transparency/partnerships-committees/agriculture-and-water-quality-advisory-committee
[26] https://ecology.wa.gov/about-us/accountability-transparency/partnerships-committees/water-quality-financial-assistance-council
[27]https://www.ezview.wa.gov/site/alias__1962/view_our_committees_water_quality_partnership/37053/water_quality_partnership.aspx

For more information on the Forum meetings, visit the Puget Sound Nutrient Source Reduction Project EZView webpage[28].

3.3.5 Regional Conservation Partnership Program

We have continued to support the Palouse Conservation District's implementation of RCPP. In 2021, USDA's Natural Resources Conservation Service (NRCS) renewed the Palouse River Watershed (WRIA 34) Implementation Partnership and provided an additional $5.5 million to improve water quality, soil health, and habitat in the Palouse River Watershed. This builds on the $5.5 million that was awarded to the Partnership at the program's inception in 2014.

Palouse River Watershed RCPP is a voluntary program directed through the Natural Resource Conservation Service (NRCS) designed to benefit water quality, soil health, and habitat within the Palouse River Watershed. The primary practices targeted with RCPP include conservation tillage (reduced tillage/no till), nutrient management, integrated pest management, cover crops, and riparian forest buffers.

In the fall of 2024, the RCPP held its RCPP signup. PCD engaged with partners to conduct multiple outreach events across the Palouse Watershed. The primary practices that producers are interested in included conservation tillage, nutrient management, and integrated pest management. PCD will run another RCPP signup in 2025. Ecology staff track their time spent working in the Palouse Watershed and report hours to the Palouse CD. Ecology staff time as well as our grant funding our used to meet the match requirements of the RCPP. Ecology staff also participate in periodic RCPP partner meetings.

3.3.6 Strengthen Relationships with Tribes

Coordination between Tribal, state, and local governments is important to the successful management of resources, including water quality. In 2022, in an effort to better coordinate with Tribal natural resource management staff we started hosting virtual meetings to highlight what projects we are working on related to our 303d program (TMDLs/WQ Standards/Assessment) and nonpoint program, and we continued those meetings in 2024.

Additionally, in 2024:

- An employee with the NWIFC continued to participate as a member of the Voluntary Clean Water Guidance advisory group.
- We collaboratively participated with DNR and WDFW staff and representatives of affected Tribes, to identify the need for and participation in interdisciplinary teams and field inspections for conducting site-specific evaluation of compliance with the forest practices rules.
- Our Eastern Regional Office coordinated with the Spokane Tribe on the Hangman Watershed efforts and with the Confederated Colville Tribe on early efforts to develop the Upper Colville River STI.

[28] https://www.ezview.wa.gov/DesktopDefault.aspx?alias=1962&pageid=37106

- Our Central Regional Office continued to coordinate with the Yakama Nation on efforts to improve water quality in the White Salmon Watershed.
- Our Northwest Regional Office collaborated with the Lummi Nation and Nooksack Tribe through the Whatcom Clean Water Program, and are looking forward to supporting the Upper Skagit Indian Tribe in their work with Skagit County to develop an East Fork Nookachamps Watershed plan. NWRO staff met with representatives of the Stillaguamish, Tulalip, and Muckleshoot Indian Tribes regarding existing and potential future work. Additionally, staff participated in a workshop organized by the Sauk-Suiattle Tribe to build a cross-Watershed temperature database.
- Our Southwest Regional Office continued to coordinate and keep Tribes informed about our implementation efforts in several focus Watersheds including our work implementing the Puyallup Watershed Fecal Coliform TMDL (Muckleshoot Tribe), Skokomish Valley and Annas Bay (Skokomish Tribe), and Deschutes River (Squaxin Indian Tribe).
- We hosted two statewide tribal water quality staff meetings to provide updates on the state of our 303(d) and nonpoint programs. Nonpoint related agenda items included: Voluntary Clean Water Guidance for Agriculture updates, 2025 Nonpoint Plan updates, overview of future Columbia and Snake River TMDL implementation plan development, Ecology's engagement on NRCS and WQ State Conservation Commission buffer programs. These meetings were attended by over 20 different federally recognized Tribes, Tribal organizations, and representatives.
- See section 3.3.1 for details on engagement with Tribes throughout 2024 as we worked on updating the Nonpoint Plan.

3.3.7 Communicating Nonpoint Successes

We did not complete any success stories this year; recognizing the importance of communicating about our work, the program has increased outreach staff capacity to prioritize communicating nonpoint successes in 2025.

3.3.8 Looking to Better Align Grant Programs

We will continue to update our funding guidelines to incorporate accepted chapters of the Clean Water Guidance. We have designed the guidelines and our funding programs to support compliance with the state Water Quality Standards and law. Additionally, we continue to look for new partnerships and additional ways to incentivize implementation of the full SPTH buffer.

However, we have limited grant dollars to dedicate to riparian buffers compared to other federal and state agencies. To try to better align funding programs and encourage other agencies to support implementation of the nonpoint program, in 2023 we provided feedback and recommended changes to riparian grant programs managed by NRCS, WSCC, and RCO (see the 2023 Annual Report for our comment letters to NRCS and WSCC to encourage alignment and support of buffers that are supportive of water quality). In 2024, we continued to engage with other agencies around the work of the state's nonpoint program.

In 2024, Ecology's Shoreline and Environmental Assistance Program developed a grant program to support improving the climate resiliency of riparian systems in Puget Sound, the Climate Resilience Riparian Systems Lead (CR2SL). This $17 million grant was awarded by EPA, through the Bipartisan Infrastructure Law and the Puget Sound Recovery National Program Office, and is a partnership coalition between Ecology, WSCC, and Bonneville Environmental Foundation, to promote innovative, sustainable, reach-scale approaches to riparian management. The funding program launched in November of 2024. The C2RSL funding guidelines utilizes the BMPs of the Clean Water Guidance, including the riparian buffer chapter, to promote full protection of water quality. We are optimistic that this alignment with Clean Water Guidance BMP recommendations will promote implementation of projects that are fully protective of water quality and support achieving the goals of the C2RSL funding program.

3.3.9 Supporting Irrigation District Efforts to Improve Water Quality

Across the state, irrigation districts are inextricably linked to water quality, and, through the authorities granted to them under RCW 87.03, may participate and expend revenue on cooperative Watershed management actions for the purposes of water quantity, water quality, and habitat protection and management. In Washington state, an example of irrigation district engagement in TMDL implementation is the Roza-Sunnyside Board of Joint Control (RSBOJC), which is an umbrella entity created to plan, implement, and administer joint projects and/or programs of the Roza Irrigation District and the Sunnyside Division Board of Control. In both the Granger Drain and Wilson Creek Watersheds, both of which drain to the Yakima River in central Washington, the RSBOJC coordinates actively with Ecology nonpoint staff to monitor and address activities that are contributing pollution to these waterways.

In 2024, in the Granger Drain Watershed, RSBOJC collected turbidity, fecal coliform, and *E. coli* samples, to evaluate progress towards the goals of the TMDLs in the Watershed, and to help identify where pollution may be entering the waterways of the Granger Drain. These activities will continue into 2025, and when potential pollution sources are identified, the RSBOJC coordinates with Ecology nonpoint staff to address pollution concerns.

In the Wilson Creek Watershed, Ecology monitors for turbidity and coordinates with RSBOJC and Kittitas County Water Purveyors (KCWP) to discuss potential pollution concerns. In 2024, no elevated measures of turbidity were recorded. Activities will continue into 2025, and Ecology will continue to collaborate with RSBOJC and KCWP to identify and address pollution inputs into Wilson Creek.

Due to the scope of nonpoint pollution across the state and the limited resources of Ecology's nonpoint source program, partnerships such as these are vital for successful implementation of TMDLs and other Watershed cleanup plans. In these cases, Ecology is able to provide a regulatory backstop, as needed, to support the efforts of partners on the ground who are working to identify and control nonpoint sources of pollution.

3.4 Goal 4: Monitor Waters for Nonpoint Source Impairments and Program Effectiveness

3.4.1 Continue Monitoring Efforts/Effectiveness Monitoring

In 2023, and continuing into 2024, Ecology initiated effectiveness monitoring efforts in several historically polluted tributaries to the Middle Snake River (WRIA 35), in eastern WA. The goal of the monitoring is to evaluate effectiveness of several years of best management practices implementation under our "Straight to Implementation" (also known as 4B) clean-up approach in these Watersheds. We have deployed continuous temperature loggers and have collected bi-weekly bacteria, dissolved oxygen, and pH samples at 9 sites across the following Watersheds since May 2023:

- Asotin Creek
- Alpowa Creek
- Couse Creek
- Deadman Creek
- Meadow Creek
- Tenmile Creek

Data and analysis results through May 2024 are included with the 2022 Water Quality Assessment (made available with the public review of the draft assessment in 2024 and will be included in the final WQA submission in spring 2025) and the data are currently available via our EIM database[29] (EIM Study ID WQ_MidSnakeSTI_EM). Initial results show reduced bacteria levels and cooler water temperatures at many sites, though additional data collection would be necessary for confirmation. Bacteria sample collection ended in May 2024. Our temperature data collection efforts have extended past May 2024 and will continue so long as resources are available.

In 2024, Ecology continued effectiveness monitoring for the Puyallup River Tributaries Bacteria and Lower White River pH TMDLs on three tributaries to the White River, located on the Enumclaw plateau. This monitoring data is used to evaluate and advise the implementation of best management practices under each of these TMDLs. Monthly monitoring started in July of 2019 and will continue through June of 2029. June of 2024 marked the end of the second of three "implementation" years of monitoring (2019-20, 2023-24 and 2028-29), where frequency and number of monitoring locations are increased. This effectiveness monitoring includes field measurements such as dissolved oxygen, pH, temperature, turbidity, and conductivity, as well as sampling for bacteria (*E. coli* and fecal coliform) and nutrients (Total Phosphorous, OrthoPhosphate, Ammonia, Nitrate-Nitrite, and Total Persulfate Nitrogen). Nutrient sampling is limited to long-term downstream sites on each tributary while the other parameters are sampled at numerous locations on each subbasin. More than 30 sites were monitored in Boise, Second and Pussyfoot creeks during 2024. More information about this monitoring effort,

[29] https://ecology.wa.gov/research-data/data-resources/environmental-information-management-database

including data results, can be found on the Puyallup River Watershed Improvement Project webpage[30].

In September 2024, Ecology completed an ambient and continuous temperature monitoring study on eleven tributaries to the lower Cowlitz River. The purpose of this effort was to 1) verify existing 303(d) listings for bacteria and temperature and 2) fill data gaps in this area where there is a lack of water quality data. Ambient monitoring takes place at one downstream location for each of the eleven tributaries, while continuous temperature monitoring covers 35 locations on these same waterbodies. Ambient monitoring includes field measurements such as dissolved oxygen, pH, temperature, turbidity, and conductivity, as well sampling for bacteria (E. coli and fecal coliform). This data will be used to inform future Watershed prioritization for the development of Watershed cleanup plans. This data was collected on the following tributaries to the lower Cowlitz River:

- Coweeman River
- Ostrander Creek
- Arkansas Creek
- Stillwater Creek
- Olequa Creek
- Lacamas Creek
- Salmon Creek
- Bill Creek
- Skook Creek
- Blue Creek
- Mill Creek

3.5 Goal 5: Administering the Nonpoint Source Program effectively and efficiently as possible

3.5.1 Nonpoint and Implementation Tracking System

To assist Ecology's efforts to reduce nonpoint source pollution and implement TMDLs, field staff routinely conduct Watershed evaluations in priority Watersheds to assess conditions that may be negatively affecting water quality. These staff also respond to water quality-related environmental complaints from the public.

When field staff conduct Watershed evaluations and complaint responses, they typically document conditions that lead to nonpoint pollution and collect a variety of site information such as field notes and photographs. These efforts to address nonpoint pollution also require staff to manage additional information, such as communications with property owners and related documents such as letters or other correspondence. To meet both staff and programmatic needs to better collect, store and track nonpoint data in a consistent and

[30] https://www.ezview.wa.gov/site/alias__1962/37699/puyallup_river_Watershed_improvement_project.aspx

streamlined manner, and manage data in a way that can be integrated with other water quality efforts such as TMDLs, the Water Quality Program invested in the development of a state-wide system to collect and store nonpoint data.

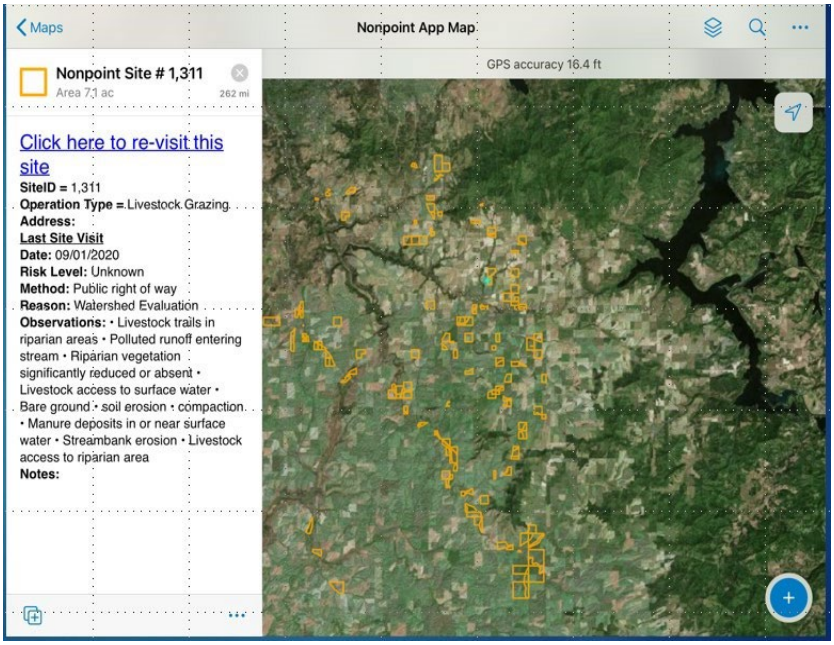

Figure 43. Screen view of the Nonpoint Collector Application shows how Ecology staff can track site visits at particular locations.

The statewide system includes the following components:

- Mobile applications to view, collect and submit data in the field via cloud-based services.
- Web application to view, manage, track, and report data.
- Internal database to store all records/data.

Key nonpoint data to be collected and managed includes:

- Field observations and notes.
- Photographs (geo-located).
- Communications with property owners.
- Best management practice implementation.

Benefits of this system are:

- Streamlined data collection in the field and reduction in equipment needed.
- Increased data quality and consistency (across all regional offices).
- Simplified data management, including data automation.
- Field access to important information.
- Ability to input, store and manage all nonpoint data in a single Ecology database.

- Centralized location for pulling nonpoint data and information.
- Improved ability to track efforts, produce reports and evaluate progress.
- Increased ability to utilize, integrate and synthesize data e.g., spatial information.
- Elimination of the need for long-term, cloud-based data storage.

Nonpoint staff use the system as their primary tool for data collection and management. We also continually update the system to meet staff and programmatic needs, and training and support documents are available to assist system users.

A single, statewide system for nonpoint data management has many clear advantages. It supports better data consistency and quality, creates predictability in the way nonpoint field work is conducted and significantly increases data accessibility to both staff and management. It also helps with continuity and gaps when staff turnover occurs. Equally important is the actual data that is collected and managed. This information allows users to better assess changes over time at the site and Watershed levels to help determine if water quality is improving and can easily be integrated into other Watershed level activities such as TMDLs, effectiveness monitoring, source identification monitoring and other project planning and implementation efforts. The system also helps us collect information necessary to meet our reporting requirements found in the settlement agreement.

In 2024, the NPI workgroup met quarterly to discuss and prioritize enhancements for NPI, to increase usability for staff. Additionally, we deployed many priority enhancements that help users view and collect data in the field, as well as manage that information in the desktop environment. Examples of these enhancements include the ability to view previous photos and detailed notes in the field, improved map layers and offline maps, and an increase in functionality to search data and manage operator contact information. We will continue to hold workgroup meetings in 2025 and continue to iteratively make improvements to the system to support the work of the Nonpoint Program.

3.5.2 Administer grants and loans

Chapter 2 of this report includes information on our program administration and identifies funded activities and BMPs related to our Section 319 Grant. Please review that chapter for more information on the progress we made on Goal 5. Additionally, information has been reported through the Grants Reporting and Tracking System (GRTS).

3.5.3 Keep the Nonpoint Program up-to-date

Nonpoint Program Staff Training

The nonpoint program has undergone a lot of growth in recent years; we have brought on new staff in field, communications, and supervisor positions. In the modern, mostly virtual work environment, we recognize the challenges of making connections with coworkers, both those who work within the same region and those who may work across the state. With this in mind, as well as the need to provide foundational information and training in a way that is consistent for all nonpoint staff across our regions, and in support of our program's effectiveness and

consistency throughout the state, in 2024 we hosted a nonpoint workshop and new staff training.

In September 2024, we hosted a workshop in Spokane for all Ecology nonpoint staff. The agenda for the three-day workshop covered three main topic areas:

- Foundational information (regulatory authorities/general nonpoint strategy/history of program).
- Ideas for the future (with a focus on the nonpoint Plan update).
- Practical information (information exchange and discussion on Watershed evaluations, contacting and working with landowners/partners, incentives, and education/outreach).

This workshop included a field tour component, focused on the riparian buffer incentives program in the Hangman Creek Watershed. We hope to hold these statewide nonpoint workshops every-other-year, to support knowledge sharing and relationship-building amongst the nonpoint program.

To support consistent foundational knowledge and implementation of our programmatic framework, we plan to begin hosting nonpoint trainings every year. 2024 was the first of these trainings, which are tailored to new staff, and specific to the conditions and common land uses of the east and west sides of the state. We held this first training in December 2024, focused on the west side of the state. The intent is for these trainings to be required for new staff and optional for existing staff.

Training topics included:

- Nonpoint Program foundations and strategies
- Introduction to agricultural land uses and pollution sources
- BMPs to address nonpoint pollution, using the Clean Water Guidance
- Watershed evaluations
- Nonpoint compliance pathway
- Working with partners
- Outreach and communication
- Nonpoint program funding overview
- Field tour in the Southwest region

We hope to utilize the knowledge and experience of existing staff when holding these trainings, to provide real-world examples, and foster relationship-building amongst nonpoint field staff with different tenure and experiences. The eastside training was planned for February 2025 but was postponed due to the state's spending freeze. We hope to resume these trainings later in 2025.

Progress toward the 2025 Nonpoint Plan Update

An update to Washington State's Water Quality Management Plan to Control Nonpoint Sources of Pollution (Nonpoint Plan) is due by December 31, 2025. In 2024 we made significant progress towards that update including:

- Working with internal Ecology staff from both the water quality program and other programs to update portions of the Nonpoint Plan which speak to Ecology activities.
- Working with external partner agencies to solicit feedback on the sections of the Nonpoint Plan that speak to the work of their programs.
- Outreach and engagement with external partners, local entities, and Tribes, described in more detail in section 3.3.1.
- Revising and updating portions of the Plan, including an emphasis on:
    - Expanding discussion of the work of Ecology's nonpoint field staff, including both voluntary and regulatory actions.
    - Increased use of SMART (Specific, Measured, Actionable, Relevant, and Time-bound) metrics in the goals and milestones table.
    - Considering and incorporating the priorities and changes included in the 2024 update of EPA's 319 Program Guidelines.

In our efforts to update the Nonpoint Plan, we have considered the feedback contained within EPA's approval letter for the 2022 Nonpoint Plan (included in Appendix E), which included detailed feedback regarding the strategy and actions taken by our Nonpoint Source Management program. Over the last several years we have worked to address the feedback and additional expectations EPA included in the letter. Below is a summary of EPA's feedback (in bold); the actions Ecology has taken to address EPA's feedback is provided (additional information is found in this annual report and previous reports).

- **Continue to prioritize the CWA section 319 funds allotted for Watershed projects to projects which implement riparian buffers that protect water quality and threatened and endangered species and their designated habitat areas:**
    - To be eligible for our Combined Water Quality Funding program, which includes both federal CWA section 319 funds and state Centennial funds, projects must "…implement an element of a state or local plan directed at addressing water quality issues, such as a Watershed management plan, nonpoint source pollution control plan, Salmon Recovery Plan, Orca Recovery Plan, Total Maximum Daily Loads (TMDL)…" Additionally, our program only funds select BMPs; specifically eligible BMPs that align with the recommendations found in the Clean Water Guidance, which is based on peer-reviewed scientific research and chosen to be fully protective of water quality, and to support meeting state Water Quality Standards. These eligibility requirements ensure that projects selected for funding will be implemented in a Watershed identified as in need of water quality improvements, and that the BMPs implemented will protect and restore water quality. Many of our funded projects address problems in Watersheds with threatened and endangered species. Additionally, we have created several incentives to encourage landowners to implement proactive buffers. For example, we added an ecosystem payment to incentivize buffers that are at least one site potential tree height in width. Additionally, in order to be eligible for funding for heavy use area improvements, manure storage facilities, fencing, etc., the project

site must either also implement a riparian buffer or already have a buffer in place on site. Further discussion of the Combined Water Quality Funding program can be found in Chapter 2, projects funded can be found in Appendix A, and the State Fiscal Year 2026 funding guidelines can be found on the Water Quality webpage[31].

- **Protective minimum buffer widths:**
  - Our Clean Water Guidance (CWG) guidelines are based upon analysis of a robust collection of peer-reviewed scientific research, resulting in buffer width recommendations that are designed to achieve compliance with state water quality law and support meeting water quality standards, promote resiliency from climate change and rising temperatures, and support healthy ecological function for our salmon populations. Our recommendation in the CWG is to implement a wider buffer than what is found in the NOAA/NMFS buffer table; we did this to align with the WDFW Priority Habitat and Species guidance. We do provide options when the full site potential tree height (SPTH) is not feasible. For these alternative options, we established minimums that would still provide compliance with state water quality law and support meeting the WQ Standards. Additionally, we have discussed the buffer widths with EPA and NOAA and our CWG riparian buffer recommendations have been reviewed and are supported by EPA.
- **Increase incentives and explore additional alternative methods to implement site potential tree height:**
  - We continue to explore additional incentives and methods to implement SPTH width buffers. For example, we currently offer a 1-time lump sum ecosystem service payment ($2,000/ acre) to landowners who implement a buffer equal to 1 SPTH, using our WQ Combined Funding Program. We are also expanding a pilot "commodity buffer" incentive program and have added Watersheds in the Eastern Region that are eligible for this program, in which producers are paid more for planting larger buffers. We are working to expand this program to a pilot Watershed on the west side of the state. We will continue to explore new opportunities to encourage implementation of SPTH buffers, and we welcome collaboration to support these efforts.
- **Deviations from guidance:**
  - As a part of the approval process for projects funded by the Water Quality Combined Funding program, projects which deviate from the buffer width options outlined in the Clean Water Guidance must submit an exemption request form. Riparian buffer width exemptions may be approved on a case-by-case basis if there is existing infrastructure within the minimum buffer area. In this request form, project proponents must explain the reason for the exemption, and how the proposed project will still be protective of the water quality parameters of concern, despite the buffer width exemption. These forms require approval from the

[31] https://apps.ecology.wa.gov/publications/SummaryPages/2410048.html

regional project manager, the Financial Management Section, and the Watershed Management Section, to ensure that only projects which will protect water quality are funded.

- **Recommended work in the Stillaguamish, Skagit, Willapa, Snoqualmie, White, Deschutes, and South Fork Nooksack Rivers:**
    - Nonpoint focal Watersheds are selected by regional offices and informed by a variety of factors, and we prioritize outreach and education efforts within existing focal Watersheds. Please see annual reporting for discussion of focal Watersheds and work occurring in them. In addition to the work of our nonpoint staff, we also support education and outreach related to water quality and reduction of nonpoint source pollution through our Water Quality Combined Funding grant program, which will not only support the implementation of pollution reduction BMPs but also community engagement and education activities. As is outlined in Appendix C, all of these Watersheds are currently a focus Watershed for nonpoint staff, and many have received 319/Centennial grants to support work and BMP implementation in the Watershed.
- **SMART goals and objectives:**
    - Our work to update the Nonpoint Plan due in 2025 includes efforts to increase the use of SMART goals within Chapter 9: Goals and Milestones.
- **Use of state enforcement authority:**
    - When efforts to achieve voluntary compliance prove unsuccessful, staff utilize our graduated compliance pathway, which escalates actions from voluntary engagement to formal enforcement measures that require pollution correction actions. The 2025 update to the Nonpoint Plan will include a more robust discussion of the nonpoint field staff strategy. Within this annual report and previous annual reports Ecology has provided information on enforcement actions taken.

Chapter 4: Conclusions

In 2024, the State of Washington made considerable progress in protecting water quality from nonpoint source pollution. In Washington State one of our greatest strengths is that we have dedicated staff and partners who are committed to working collaboratively to reduce the scope and scale of NPS pollution. This cooperative, solution-oriented environment encourages innovation and adaptation in addressing both longstanding and emerging water quality challenges.

Throughout our NPS management strategy, there is a focus on implementation and clear standards. Moreover, there is an increased emphasis on greater regulatory clarity around what actions are necessary to prevent pollutants from reaching state waters and ensure compliance with the water quality standards. This year we continued to make progress in providing more clarity on agricultural BMPs, as we continued work on the remaining eight chapters of the Clean Water Guidance, due to be submitted with the upcoming Nonpoint Plan update at the end of 2025.

As EPA is well aware, water quality protection efforts inherently face significant ongoing social, financial, and technical challenges. We are continuing to better refine the right balance of technical assistance, financial assistance, and the use of enforcement tools. Our approach of actively identifying pollution sources in Watersheds through Watershed evaluations, and then contacting producers and landowners continues to be more standardized around the state. We are utilizing this proactive approach to educate the public about the role they play in protecting water quality to the benefit of their communities. Recognizing the need to provide complex information in a broadly accessible manner, we are working with our regional staff to develop outreach materials for use in the field with landowners and partners. We continue work to develop a landowner's guide to riparian buffer implementation, to distill down the robust scientific research of the riparian buffer Clean Water Guidance chapter into an engaging and accessible guide to help the public understand their options for implementing buffers that are compliant with state water quality law, with the goal of producing similar outreach materials for all chapters of the CWG in the future. Providing technical assistance and promoting available financial assistance to encourage the implementation of effective BMPs represents the bulk of our work.

However, technical and financial assistance will only get us so far. It is critical to have an active and consistent regulatory presence in Watersheds in order to be successful in restoring and protecting water quality. This need for a regulatory backstop was again highlighted this year. In Watersheds where we use regulatory tools there is more proactive implementation of effective BMPs across the Watershed. We continue to utilize our regulatory backstop to support our proactive technical assistance and financial assistance efforts. In 2024, Ecology nonpoint staff issued twenty warning letters and two administrative orders to agricultural producers with track records of noncompliance and an unwillingness to take advantage of technical and financial assistance resources.

Utilizing the full suite of tools (technical assistance/financial assistance/enforcement) is the key to success. Again, if staff only use technical assistance and financial assistance tools, implementation is generally limited to those that are predisposed to resource protection and willing to change how they manage their land. Likewise, if we only act in an enforcement role, we sacrifice our long-term ability to effectively work in a Watershed. It is not effective to be confined to an adversarial role—being able to also wear technical assistance and financial assistance hats allows us to act in a more collaborative and problem-solving role and maintain constructive partnerships in the Watersheds where we work.

The 319 funding Washington receives is critical for helping our field staff get effective BMPs on the landscape. 2024 saw continued large investments in riparian restoration in Washington state, however, despite Ecology's efforts to work with other agencies to align their funding programs, new funding programs were developed that are not designed to meet water quality standards and with funding volumes that far outpace Ecology's funding for nonpoint projects. This means that while 319 funding continues to be an essential part of Washington's efforts to meet state water quality standards, we are unable to be financially competitive with other programs that offer higher payments for smaller buffers. It is critical to fund BMPS that are designed to protect water quality. We will continue to work to align funding programs, both inside Ecology and with external partners.

The enormity of the NPS pollution problem in Washington State requires that we continually strive to improve our programs, policies, and tools. The many advancements outlined in this report show that we are on the right track. In 2025, we look forward to continuing our nonpoint efforts through monitoring, Watershed evaluations, water cleanup implementation, and grants. We will complete the remaining Voluntary Clean Water Guidance chapters; moving forward, this guidance will serve as an important asset in efforts to reduce NPS pollution from agricultural sources. We will complete the update to our Nonpoint Plan, which outlines the strategy for addressing nonpoint pollution in Washington state, and establishes the goals and milestones which we will continue to report on in these Annual Reports to EPA. The remaining CWG chapters and the Nonpoint Plan update are due by December 31, 2025.

Our funding program continues to be successful, responsibly managed, and a model for using public dollars to facilitate the implementation of the most effective BMPs. We will continue our efforts in aligning our funding guidelines with our new guidance and BMP recommendations.

Nevertheless, we can and will do more to advance water quality protection in Washington State. We know that opportunities exist to build on our successes, and we continue to work towards improving the following elements of our nonpoint program:

- Better communicate our strategy and goals to the public.
- Further refine the tools we use to document and track water quality problems in Watersheds.
- Improve the strategies we use to achieve clean water goals in priority Watersheds.

- Continue to develop external partnerships and facilitate coordination and alignment between funding program guidelines, to support programs that promote compliance with state water quality standards.
- Better communicate the successes achieved by our NPS management program in order to facilitate further acceptance and adoption of effective NPS pollution controls throughout the state.

In all these regards, the continued financial and technical support we receive from EPA has been and will remain critical to supporting both the staff and the actions needed to implement our Nonpoint Source Management Plan and achieve clean water goals throughout the State of Washington.

Appendix A. Ecology's Integrated Grant and Loan Program- project details

Direct Implementation Fund (DIF) Projects

Table 5. List of all the Direct Implementation Funds

Agreement Number	Organization	Project Title	Watershed Plans	Project Short Description	Funding
WQOG-2023-PaloCD-00003	Palouse Conservation District	Spring Flat Creek Buffer Incentive Program	Palouse Temperature TMDL	Spring Flat Creek is identified as impaired for temperature, dissolved oxygen, bacteria, and pH. The RECIPIENT will establish the Spring Flat Creek Buffer Incentive Program to provide competitive rental rates with long-term contracts for agricultural riparian land taken out of production. The RECIPIENT will enroll multiple landowners into this program, restoring approximately 25 acres of riparian area within the Spring Flat Creek Watershed.	$300,000 (Centennial)
WQOG-2023-SpoCoD-00005	Spokane Conservation District	Hangman Creek Riparian Restoration and Conservation Program Phase 2 – DIF	Hangman Creek Watershed Multiparameter TMDL	This project will continue the Hangman Riparian Restoration and Conservation Program – a hybridized riparian incentive program that builds upon existing conservation programs and producer-reported barriers to participation. This agreement will fund the development and implementation of two contracts to restore approximately 139 acres of riparian area across two dryland agricultural farms in the Hangman Watershed to address temperature, turbidity, nutrient, DO and pH parameters.	$1,963,538 (Centennial)

WQOG-2024-ClarCD-00006	Clark Conservation District	Lacamas Creek – Andersen Riparian	Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan	The RECIPIENT will conserve riparian land, improve water quality in the Lacamas Creek Watershed, and strengthen Watershed partnerships by implementing recommended actions from the Lacamas Creek Source Assessment. Riparian forest buffer implementation will occur along Lacamas Creek and associated tributaries improving temperature, bacteria, and DO water quality. Project success will demonstrate the effectiveness of partnership cooperation to conserve riparian land and protect water quality.	$300,000 (Centennial)
WQOG-2024-SpoCoD-00007	Spokane Conservation District	Hangman Watershed – Rock Creek Tributary Livestock BMPs	Hangman Creek Watershed Multiparameter TMDL	The Hangman Watershed is currently impaired by excess fecal coliform bacteria, turbidity, pH, nutrients, and low dissolved oxygen. The RECIPIENT will improve water quality by implementing livestock best management practices (BMPS) on a farm located along an unnamed tributary to Rock Creek within the Hangman Creek Watershed in Spokane County, WA.	$69,561 (Centennial)
WQOG-2024-KCWLRD-00008	King County - Water and Land Resources Division	Soos Creek Riparian Restoration Project	Soos Creek multi-parameter (in progress)	This project will improve water quality in Soos Creek by revegetating the riparian zone in a degraded reach of Soos Creek on a property owned by the RECIPIENT. The RECIPIENT will plant 14 acres of 100-215-foot-wide riparian buffer with native trees and shrubs to reduce temperatures in Soos Creek, increase dissolved oxygen levels and improve habitat.	$196,000 (Centennial)

WQOG-2024-ChCoNR-00009	Chelan County - Natural Resource Department	Reindeer Farm Chumstick Creek RM 0.5 Riparian Restoration	Wenatchee River Watershed Temperature TMDL	The RECIPIENT will install 545 riparian plants within a 75-foot-wide riparian buffer across 560 stream feet and 0.82 acres at a reindeer farm along Chumstick Creek near Leavenworth, WA. Installation of these best management practices (BMPs) will address 303d listings for bacteria, dissolved oxygen, and temperature in the Chumstick.	$35,061 (Centennial)
WQOG-2024-KCWLRD-00010	King County - Water and Land Resources Division	Seawest Granston, Middle Bear Creek Riparian Restoration	Little Bear Creek Fecal Coliform Bacteria TMDL	The RECIPIENT will restore four acres including 1,000 linear feet of 200-foot riparian buffers along Bear Creek in Redmond, in Middle Bear Creek Natural Area (Cedar-Sammamish Watershed - WRIA 8). This project is the second phase of a larger ongoing project to improve groundwater connectivity and increase cool base flows during summer. The project benefits water quality in this urbanized Watershed, which has temperature, dissolved oxygen, and bacteria impairments being addressed by two TMDLs.	$100,000 (Centennial)

WQOG-2024-KCWLRD-00011	King County - Water and Land Resources Division	Ward Property Boise Creek Riparian Revegetation	Puyallup River Fecal Coliform TMDL	The RECIPIENT will plant 5.2 acres (1,600 linear feet) of riparian zone on Boise Creek, a tributary to the Lower White River in the Puyallup Watershed. Boise Creek is listed as impaired for bacteria, temperature, and pH. The reach to be planted is a high-priority reach within a high-priority subbasin for nonpoint source reduction in two separate TMDL Watershed clean-up plans. The project is expected to help shade the stream and reduce pollutant inputs from runoff.	$110,000 (Centennial)

Nonpoint Source Watershed Projects Awarded Grants and Loans in SFY2025

The following projects were offered funding for the SFY2025 Water Quality Combined Funding Program funding cycle. Agreement negotiations began July 1, 2024.

Table 6. Nonpoint Source Watershed Projects Awarded Grants and Loans in SFY2025

Application Number	Applicant	Project Title	Watershed Plans	Project Short Description	CWSRF Standard Loan	Centennial Grant	Section 319 Grant
WQC-2025-Adopta-00162	Adopt A Stream Foundation	West Fork Quilceda Creek Water Quality Partnership Tulalip Tribes & AASF 2	Snohomish River Estuary Multiparameter TMDL (Approved)	This Phase 2 project continues to improve water quality in 303(d)-listed West Fork Quilceda Creek by installing Large Woody Material (LWM) in an unnamed tributary creating at least 10 log jams and restoring 2,391 linear feet of riparian buffer by planting native trees and shrubs, totaling 10.6 acres. The restored riparian buffer will filter and absorb runoff and create stream canopy, and the LWM will scour pools, improving groundwater interaction and becoming a source of cool water.	$0	$0	$250,000

WQC-2025-CascCD-00111	Cascadia Conservation District	Improving Water Quality in the Wenatchee and Lake Chelan Basins	Wenatchee River Watershed Temperature TMDL (Approved)	The RECIPIENT will reduce water quality impairments and increase fish habitat in the Wenatchee and Lake Chelan Watersheds through stream restoration projects, landowner assistance, and Watershed education. At least 4.87 acres of riparian buffer will be restored along 1,425 feet of Little Chumstick and Joe creeks, 11 prior restoration projects will be monitored and maintained, 50 new landowners will receive technical assistance, and more youth and adults will receive Watershed education.	$0	$346,050	$0

WQC-2025-ChCoNR-00040	Chelan County - Natural Resource Department	Nason Creek AWS and Thermal Refuge Implementation Project	Wenatchee River Watershed Multiparameter TMDL (Approved)	The RECIPIENT will advance several ECOLOGY agreements with final phase BMP implementation, monitoring, and outreach to continue a strategy of addressing the 14 4A temperature listings in Nason Creek. Actions include phase two construction of low-tech instream restoration within Kahler creek to restore ground and surface water flow, and advancement of two Thermal Refuge projects, at the mouth of Kahler creek and the mouth of Butcher Creek, to improve functionality of existing cold plumes.	$0	$492,093	$0

WQC-2025-ChCoNR-00136	Chelan County - Natural Resource Department	Chumstick Basin Integrated Water Flow and Temperature Improvement	Wenatchee River Watershed Multiparameter TMDL (Approved)	The Chumstick Basin Integrated Water Flow and Temperature Improvement Project continues the RECIPIENTs strategy to address the 19 temperature, DO, water quantity and bacteria listings in Chumstick and Eagle Creeks. Building on WQC-2021-00167 and WQC-2022-00112, this project includes instream and floodplain improvements on 4,500 stream feet, specific adaptive management on past projects, outreach and targeted planning to assure past and future efforts meet water quality restoration goals.	$0	$235,413	$0
WQC-2025-ClarCD-00016	Clark Conservation District	Poop Smart Clark Septic Reimbursement Program	East Fork Lewis River Alternative Restoration Plan.	The RECIPIENT will initiate the Poop Smart Clark Septic Reimbursement Program which provides outreach and financial assistance County-wide to OSS owners for inspections, maintenance, repair, and replacement. This funding will support a second phase of the PIC program by expanding the reimbursement program to the entire county and implementing MST testing in the Lacamas Creek Watershed to target future work.	$0	$500,000	$0

WQC-2025-ClCoPW-00158	Clark County - Public Works Department	Heritage Farm Wetland Restoration Phase II Implementation	Salmon Creek Temperature Total Maximum Daily Load	This project will excavate a shallow floodplain bench and provide wetland restoration along a channelized section of Cougar Creek headwaters on Clark County's Heritage Farm property. This project implements a portion of the Heritage Farm master plan and addresses a priority of enhancing and restoring headwater wetlands within the Cougar Creek Watershed. Primary benefits are wetland habitat creation, increased infiltration, and maintenance of cool summer baseflows to downstream Salmon Creek.	$3,448,170	$0	$0
WQC-2025-ClCoPW-00188	Clark County - Public Works Department	Changing behaviors to reduce nutrients and pesticides in SW Washington	Burnt Bridge Creek TMDL Alternative (In Development)	The RECIPIENT will reduce nutrient and pesticide inputs to the Lower Columbia River from urban communities in Southwest Washington by promoting lawn care practices that improve water quality, and by changing fertilizer and pesticide use behaviors. Through amplification of the region-wide public outreach campaign “Follow the Water” and the behavior change campaign “What’s Your Lawn Style”, SW Washington residents will engage with digital content and yard care programs to improve water quality.	$0	$338,576	$0

WQC-2025-CoLaTr-00180	Columbia Land Trust	Rattlesnake Creek Watershed Conservation	Northwest Power and Conservation Council White Salmon Watershed Subbasin Plan	Rattlesnake Creek, the largest anadromous tributary to the White Salmon River (mid-Columbia River region), is 303d-listed for temperature and bacterial impairment as a result of upland habitat alteration and channel simplification. This land acquisition project will address water quality impairment by conserving mature forest stands and associated intact hillslope processes--the source of the coldest water inputs in Rattlesnake Creek--and by preventing conversion to developed uses.	$0	$0	$500,000
WQC-2025-FoCrCD-00036	Foster Creek Conservation District	Foster Creek Watershed-Scale Restoration and Community Engagement	Watershed Plan for Moses Coulee and Foster Creek	In the Foster Creek Watershed, Foster Creek Conservation District (FCCD) will address 303(d) listings for temperature, pH, and dissolved oxygen through stream restoration and community education in cooperation with partner organizations. In this new stage of this program, we will implement a new stream restoration project, maintain previous project sites, continue monitoring, continue to build community engagement with Watershed-scale issues, and provide educational programs to the community.	$0	$347,109	$0

WQC-2025-GrHaCD-00026	Grays Harbor Conservation District	Grays Harbor Stream Team Water Quality Outreach and Education	Grays Harbor Bacteria TMDL (Approved)	The RECIPIENT will expand successful outreach and education programs into targeted water quality impairment areas (Category 2, 4, and 5) of Grays Harbor County for temperature, dissolved oxygen, or bacteria. Events and programs will focus on riparian stewardship, macroinvertebrate monitoring, stormwater education, and water quality educational events. The desired outcome is to improve water quality by increasing our community's knowledge and interest in stewarding water quality.	$0	$ 355,336	$0
WQC-2025-KCWLRD-00032	King County - Water and Land Resources Division	Community Based Social Marketing Riparian Restoration Campaign	Puyallup River Bacteria TMDL	There are many riparian restoration assistance programs available to landowners along Pussyfoot, Second, and Boise Creeks. However, few landowners access these programs. This project will use a community based social marketing approach to identify the barriers, motivators, and incentives for landowners adjacent to these creeks to participate in these programs to benefit landowners, water quality, and salmon.	$0	$ 196,058	$0

				available instead of per the government budget cycle. Funds requested will support program feasibility, development and two pilot acquisitions.			
WQC-2025-KCWLRD-00104	King County - Water and Land Resources Division	Horsehead Bend Natural Area Revegetation Phase II	2011 Green River Temperature TMDL Report	The RECIPIENT will plant a riparian buffer along 1,400 linear feet of the Green/Duwamish River. The buffer will meet ECOLOGY's Core Zone minimums. The RECIPIENT will also provide maintenance on the adjacent 8 acres of riparian buffer planted previously. Both parcels are on the Green/Duwamish River at Horsehead Bend Natural Area. The project will provide shade to address high water temperatures, filter surface runoff, and provide sources of large wood for river and terrestrial habitat.	$0	$ 287,000	$0

WQC-2025-MCFEG-00142	Mid-Columbia Fisheries Enhancement Group	Improving Lower Yakima River Water Quality through Riparian Restoration	Yakima Steelhead Recovery Plan, Yakima Basin Fish & Wildlife Recovery Board (2009)	The RECIPIENT will improve water quality and salmonid habitat in the lower Yakima River by restoring riparian habitat on 7 acres along 1,500 feet of the lower Yakima River on an active farm. Other tasks will develop a future riparian project in the lower Yakima; encourage riparian stewardship in area students and adults through education; and increase the success of eastern Washington riparian restoration through information-sharing for riparian restoration professionals.	$0	$ 347,352	$0
WQC-2025-Mukilt-00191	Mukilteo, city of	Chennault Beach Creek Access Road Culvert Improvements Feasibility Study		The RECIPIENT will conduct an alternatives analysis and restoration feasibility study to evaluate hydraulic, hydrologic, and water quality conditions and potential best management practices to address sediment and turbidity, flow and fish habitat issues in Upper Chennault Beach Creek.	$0	$ 97,850	$0

WQC-2025-PaloCD-00057	Palouse Conservation District	Conservation & Community: Lower Fourmile Watershed Restoration	Palouse River Watershed Bacteria TMDL (Approved)	This project will improve water quality in Rose Creek in the Lower Fourmile Creek Watershed. PCD will plan and implement restoration activities on Rose Creek, conduct water quality monitoring along Fourmile Creek, provide technical assistance (TA) to area landowners, and oversee education and outreach activities. Results include nine acres of riparian buffers installed, TA provided to at least 30 landowners, 24 months of water quality data collected, and over 200 community members engaged.	$0	$500,000	$0
WQC-2025-PaloCD-00097	Palouse Conservation District	A Watershed Moment: Riparian Restoration and Education on the Palouse	Palouse River Watershed Bacteria TMDL (Approved)	This project will improve water quality in the South Fork Palouse River (SFPR) Watershed through a series of riparian restoration projects. PCD will plant riparian buffers on 21.5 acres of land along Rose Creek, Fourmile Creek, and SFPR, conduct environmental monitoring in the Fourmile Creek Watershed, provide technical assistance to area landowners, develop an online water quality monitoring platform, host service-learning planting events, and create an internship program for WSU students.	$0	$ 499,999	$0

WQC-2025-PeOrCD-00179	Pend Oreille Conservation District	Bear Paw Salmonid Habitat Restoration and Bank Stabilization Project	Pend Oreille River Watershed Temperature TMDL	The RECIPIENT will implement nonpoint source best management practices recommended in the local Total Maximum Daily Load (TMDL) to address turbidity from stream bank erosion on the Pend Oreille River. The RECIPIENT will restore 1,340 linear feet of riverbank in areas with high rates of erosion according to the Pend Oreille Utility Districts Hazard Occurrence map. The RECIPIENT will install riparian buffers adjacent to riverbank projects to address temperature impairments listed in the TMDL.	$0	$ 491,928	$0
WQC-2025-SeatPR-00109	Seattle city of - Parks & Recreation Department	Thornton Creek Floodplain Reconnection for the Lake City Floodplain Park		The RECIPIENT will improve water quality in Thornton Creek by restoring a section of the North Branch to a naturalized stream with a back channel, reconnecting the floodplain and wetland complex, and restoring just over 1 acre of riparian and wetland habitat . Thornton Creek is impaired for temperature, dissolved oxygen, and bacteria. This project will help address these impairments by adding shade and increasing runoff filtration and hyporheic flows.	$0	$500,000	$0

WQC-2025-SJCESD-00085	San Juan County - Environmental Stewardship Department	False Bay Creek Watershed Riparian Corridor Restoration	San Juan Action Agenda Ecosystem Protection and Recovery Plan (2017)	Lower False Bay Creek is impaired for recreational uses due to bacteria. To improve water quality and habitat, the RECIPIENT will plant native trees and shrubs along approximately 3,400 linear feet of creek to re-establish the riparian corridor immediately below Lake Zylstra that drains to False Bay Marine Preserve. This section of creek is within the Lake Zylstra Preserve, owned by the San Juan County Land Bank, and a neighboring property owned by the San Juan Preservation Trust.	$0	$ 272,842	$0
WQC-2025-SkCoPW-00131	Skagit County - Public Works Department	Lorenzan Creek Final Design and Restoration	Puget Sound Action Plan	The RECIPIENT will complete final design and construction for a full daylighting of Lorenzan Creek, including demolition of existing structures and riparian restoration. Lorenzan Creek flows under Skagit County's Road Shop in an 18-inch culvert that is 360 feet long. Stormwater goes directly into the creek with inadequate treatment. Water quality will improve through restoration of approximately 475 linear feet of stream, providing a buffer from runoff and fostering ecosystem functionality.	$0	$500,000	$0

WQC-2025-SnCoHD-00176	Snohomish County Conservation Natural Resources Department	Savvy Septic Program		The Savvy Septic Program aims to empower residential on-site sewage system (OSS) owners to engage in a collective Puget Sound water quality solution by using outreach, education, and financial incentives. We will expand and sustain the Savvy Septic Program by providing 9 grants to eligible low-income OSS owners, 625 OSS maintenance rebates, low-interest loan resources, septic care workshops for homeowners, and informational workshops for septic contractors during the project period.	$0	$500,000	$0
WQC-2025-SnohCD-00196	Snohomish Conservation District	Freedom and Church Creek Riparian Planting Project Phase Two	Stillaguamish Watershed Chinook Recovery Plan	Phase two of this project continues to restore water quality and riparian habitat in the 303(d)-listed Church Creek sub-basin of the Stillaguamish River by restoring riparian buffers on Freedom Creek controlling invasive vegetation and planting native trees and shrubs on 3.1 acres. The project will also complete 12 acres of riparian maintenance on previously funded sites. Improved temperature, dissolved oxygen and habitat will benefit ESA-listed Chinook salmon, other salmonids, and aquatic life.	$0	$ 290,877	$0

WQC-2025-SnohCD-00197	Snohomish Conservation District	Restoring cold water habitat in Lower Pilchuck Creek	Stillaguamish River Watershed Multiparameter TMDL	The RECIPIENT will improve water quality in a 303(d)-listed tributary of Pilchuck Creek in the Stillaguamish Watershed by restoring 1,000 feet and 6.32 riparian acres and reconnecting the incised stream with its floodplain using Beaver Dam Analogs (BDAs) or Post-Assisted Log Structures (PALS). The project will improve ESA-listed salmon habitat by restoring cold water input to Pilchuck Creek, reducing sediment, and addressing a temperature TMDL for the Stillaguamish River.	$0	$ 303,756	$0
WQC-2025-SpoCoD-00166	Spokane Conservation District	Hangman Creek Riparian Buffer Incentive Program	Hangman Creek Watershed Multiparameter TMDL (Approved)	The RECIPIENT will continue the Hangman Riparian Restoration and Conservation Program – a hybridized riparian incentive program that builds upon existing conservation programs and producer-reported barriers to participation. This agreement will fund the development and implementation of two contracts to restore a minimum 20 acres of riparian area across two sites in the Hangman Watershed to address temperature, bacteria, turbidity, nutrient, DO and pH parameters.	$0	$500,000	$0

WQC-2025-SpoCoD-00184	Spokane Conservation District	Hangman Creek Riparian Buffer Incentive Program	Hangman Creek Watershed Multiparameter TMDL (Approved)	The RECIPIENT will continue the Hangman Riparian Restoration and Conservation Program – a hybridized riparian incentive program that builds upon existing conservation programs and producer-reported barriers to participation. This agreement will fund the development and implementation of two contracts to restore a minimum 20 acres of riparian area across two sites in the Hangman Watershed to address temperature, bacteria, turbidity, nutrient, DO and pH parameters.	$0	$500,000	$0
WQC-2025-SpoCoD-00190	Spokane Conservation District	Hangman Creek Composite Toe Stabilization Project	Hangman (Latah) Creek Watershed Fecal Coliform Bacteria, Temperature, and Turbidity Total Maximum Daily Load	This project will implement nonpoint source (NPS) best management practices (BMPs) recommended in the local Total Maximum Daily Load (TMDL) and Water Quality Implementation Plan to address turbidity from stream bank erosion in Hangman Creek. The project will build upon previous downstream work and will stabilize and install riparian plantings along approximately 1,050 linear feet of actively eroding stream bank on Hangman Creek near the Rock Creek confluence.	$0	$500,000	$0

WQC-2025-ThCoPH-00041	Thurston County - Public Health and Social Services Department	Lost Lake Resort Spruce West and East Septic Project	Nisqually Watershed Bacteria and Dissolved Oxygen TMDL	This project will provide funding and administrative oversight to repair and replace the current inadequate and failing portion of the community on-site sewage system (OSS) at Lost Lake in Thurston County. The RECIPIENT will be the fiscal sponsor, administrator of the funds, and provide administrative and regulatory oversight for the replacement of an existing on-site sewage system to serve up to 38 units in the community, reducing bacteria loading into Lost Lake and the larger Watershed.	$0	$ 472,450	$0
WQC-2025-ThurCD-00165	Thurston Conservation District	Improving Water Quality in Ayer/Elwanger Creek, Phase 1	Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment TMDL (Approved)	The RECIPIENT will address water quality concerns and perform riparian restoration activities on Ayer/Elwanger Creek, a tributary to the Deschutes River. Ayer/Elwanger Creek is identified in the Deschutes River TMDL report as impaired by a combination of pH, dissolved oxygen, and temperature. The RECIPIENT will complete a site assessment and restoration plan to respond to water quality concerns. Phase 1 initiates baseline monitoring, invasive weed control and planting of riparian vegetation.	$0	$500,000	$0

WQC-2025-TroUnl-00150	Trout Unlimited	Hangman Creek Floodplain Restoration at Grouse Creek Ranch – Phase 1	Hangman (Latah) Creek Watershed Fecal Coliform, Temperature, and Turbidity Total Maximum Daily Load (Approved)	This agreement is part of a multi-phased project that will improve water quality, restore floodplain connectivity, and restore habitat functions along 2.2 miles of Hangman Creek upstream of its confluence with Rock Creek. The Recipient will conduct a reach assessment identifying priority restoration opportunities, advance priority opportunities to preliminary and final design, initiate phased construction of priority restoration actions, and provide monitoring and adaptive management.	$0	$0	$499,730
WQC-2025-Tumwat-00054	Tumwater city of	Pioneer Park Riparian Restoration Phase 2	Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment TMDL (Approved)	The RECIPIENT will complete 90% designs, final design deliverables, and construct a riparian restoration project to stabilize the slope and improve water quality along the Deschutes River at River Mile 2.0, located in Pioneer Park. Currently, the roughly 1,000-foot section of unstabilized bank produces over 2,380 cubic yards of fine sediment every year into the Deschutes River, a 303(d) listed water body.	$0	$500,000	$0

WQC-2025-Vancou-00113	Vancouver city of	Burnt Bridge Creek Property Acquisition Phase 3	Burnt Bridge Creek Multiparameter TMDL (In Process)	Burnt Bridge Creek is on the 303(d) list for impairment from bacteria, pH, DO, and temperature. The City has identified key riparian properties to purchase for preservation and restoration to improve water quality and protect groundwater. This project will acquire two parcels in the lower Watershed, with up to 9 acres of critical habitat, to restore tree canopy, improving temperature and oxygen levels, and to preserve open space that will improve air and water quality for human and aquatic life.	$0	$500,000	$0
WQC-2025-WashPW-00077	Washougal city of - Public Works Department	Campen Creek Reconnection Project	Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan	The RECIPIENT will restore Campen Creek's connection to its floodplain and enhance riparian and wetland habitats within 9 acres of Mable Kerr Park. The RECIPIENT will install habitat structures, willow trenches, regrade portions of the creek, and densely plant native trees and shrubs. These actions will help attenuate storm flows, reduce downstream pollutant loading from urban runoff, increase base flows, lower summer temperatures, and improve rearing habitat for salmonids and lamprey.	$0	$498,455	$0

WQC-2025-WhitCD-00189	Whitman Conservation District	Mud Flat Creek Restoration	Middle Snake River Watershed Plan	Alkali Flat Creek has long been identified on the Washington 303(d) list for impairments of pH, temperature, dissolved oxygen, and bacteria. To address these issues, Whitman Conservation District has identified a project site on Mud Flat Creek, a tributary of Alkali flat creek for a riparian restoration and improvement.	$0	$500,000	$0
WQC-2025-WWCoCD-00001	Walla Walla County Conservation District	Touchet River Mile 35 Restoration Project	Walla Walla River Watershed Temperature TMDL (Approved)	The RECIPIENT will restore a one-mile reach of the Touchet River west of Prescott, WA. Phase 1 restoration activities include installing in-stream and bank bio-engineered log structures, enforced log jams, and other large woody material; completing side channel pilot cuts; and planting bank vegetation. Project outcomes include increased shade, floodplain inundation, sediment deposition, and side channels, which will improve water and salmonoid habitat quality.	$0	$500,000	$0

WQC-2025-WWCoCD-00008	Walla Walla County Conservation District	Lower Mill Creek RM 4.0 Phase 1	Snake River Salmon Recovery Region Provisional 3-5 Year Work Plan	The RECIPIENT will restore a 0.5-mile stretch of Mill Creek, a tributary of the Walla Walla River in southeast Washington, thereby improving its ecological function and addressing existing temperature, dissolved oxygen and turbidity water quality impairments. Restoration activities include installing logjam and habitat structures; reconnecting side channels; and planting riparian vegetation. Project outcomes include increased shade, floodplain inundation, sediment deposition, and side channels.	$0	$495,600	$0
WQC-2025-WWCoCD-00019	Walla Walla County Conservation District	Touchet River Mile 42 Restoration Project	Walla Walla River Watershed Temperature TMDL (Approved)	The RECIPIENT will restore a 1.4-mile reach of the Touchet River west of Waitsburg, WA. Phase 1 restoration activities will include installing engineered log jams, pile fields, and other large woody material; completing a pilot channel cut; and enhancing a riparian buffer. Project outcomes include improved water quality and salmonid habitat, and floodplain resiliency.	$0	$480,000	$0

WQC-2025-YaCoPS-00143	Yakima County - Public Services Department	Shaw and Wide Hollow Creeks Restoration Phase II	Wide Hollow TMDL (In Development)	The RECIPIENT will relocate an altered 8,600-foot section of Shaw Creek to a new 3,600-foot channel on undeveloped lands and establish a riparian buffer along the channel. These actions will reduce heavy metals, pesticides, bacteria, and other pollutants from being transported to Wide Hollow Creek via Shaw Creek during high flows and improve water quality in Shaw and Wide Hollow Creeks.	$0	$500,000	$0

Summary of pollutant and load reductions per project in 2024

Table 7. Summary of Load Reductions in 2024

Pollutant	Total Load Reduction Estimate
Biochemical Oxygen Demand (BOD)	94,561 LBS/YR
Nitrogen	41,177 LBS/YR
Phosphorus	51,308 LBS/YR
Sedimentation-Siltation	17,099 TONS/YR

Table 8. Load Reductions per Project in 2023

Pollutant	State Project No.	Estimated Load Reduction	Unit of Measure
BOD	WQC-2021-SnohCD-00048	26.95	LBS/YR
BOD	WQC-2021-Adopta-00063	0.24	LBS/YR
BOD	WQC-2022-SnohCD-00022	0	LBS/YR
BOD	WQC-2022-PaloCD-00059	4987.52	LBS/YR

BOD	WQC-2023-KooCom-00055	89345	LBS/YR
BOD	WQC-2024-KiCoDi-00167	201.9	LBS/YR

Pollutant	State Project No.	Estimated Load Reduction	Unit of Measure
Nitrogen	WQC-2021-Adopta-00063	7.28	LBS/YR
Nitrogen	WQC-2021-Adopta-00064	0	LBS/YR
Nitrogen	WQC-2021-SnohCD-00048	14.15	LBS/YR
Nitrogen	WQC-2022-BellPW-00115	0	LBS/YR
Nitrogen	WQC-2022-ChCoNR-00112	0	LBS/YR
Nitrogen	WQC-2022-LandCo-00049	31.27	LBS/YR
Nitrogen	WQC-2022-OxCSAE-00062	901.8	LBS/YR
Nitrogen	WQC-2022-PaloCD-00059	2775	LBS/YR
Nitrogen	WQC-2022-SkRiSC-00135	80.37	LBS/YR
Nitrogen	WQC-2022-SnohCD-00022	0.01	LBS/YR
Nitrogen	WQC-2022-SoSaSo-00004	0.1175	LBS/YR
Nitrogen	WQC-2022-SoSaSo-00005	0.0029	LBS/YR
Nitrogen	WQC-2022-StePar*-00141	0.0001	LBS/YR
Nitrogen	WQC-2023-BellPW-00074	0	LBS/YR
Nitrogen	WQC-2023-ChCoNR-00039	0	LBS/YR

Nitrogen	WQC-2023-KooCom-00055	24816	LBS/YR
Nitrogen	WQC-2023-LCEP-00164	0.0001	LBS/YR
Nitrogen	WQC-2023-LoCFEG-00134	0	LBS/YR
Nitrogen	WQC-2023-OkHiAl-00185	28.46	LBS/YR
Nitrogen	WQC-2023-PaloCD-00005	4934.2	LBS/YR
Nitrogen	WQC-2023-SFEG-00162	0.0024	LBS/YR
Nitrogen	WQC-2023-SpRiKe-00137	48.96	LBS/YR
Nitrogen	WQC-2023-StePar*-00109	0.008	LBS/YR
Nitrogen	WQC-2024-KiCoDi-00167	7264	LBS/YR
Nitrogen	WQC-2024-LCEP-00181	0.0001	LBS/YR
Nitrogen	WQC-2024-SoSaSo-00210	0.0027	LBS/YR
Nitrogen	WQC-2024-NookIT-00123	275.7	LBS/YR

Pollutant	State Project No.	Estimated Load Reduction	Unit of Measure
Phosphorus	WQC-2021-SnohCD-00048	5.51	LBS/YR
Phosphorus	WQC-2021-Adopta-00063	0.52	LBS/YR
Phosphorus	WQC-2021-Adopta-00064	0	LBS/YR
Phosphorus	WQC-2022-SoSaSo-00004	0.1128	LBS/YR
Phosphorus	WQC-2022-SoSaSo-00005	0.0028	LBS/YR

Phosphorus	WQC-2022-SnohCD-00022	0	LBS/YR
Phosphorus	WQC-2022-LandCo-00049	31.42	LBS/YR
Phosphorus	WQC-2022-PaloCD-00059	1019.96	LBS/YR
Phosphorus	WQC-2022-OxCSAE-00062	347.7	LBS/YR
Phosphorus	WQC-2022-ChCoNR-00112	0	LBS/YR
Phosphorus	WQC-2022-BellPW-00115	0	LBS/YR
Phosphorus	WQC-2022-SkRiSC-00135	18.69	LBS/YR
Phosphorus	WQC-2022-StePar*-00141	0.0001	LBS/YR
Phosphorus	WQC-2023-PaloCD-00005	1904.91	LBS/YR
Phosphorus	WQC-2023-ChCoNR-00039	0	LBS/YR
Phosphorus	WQC-2023-KooCom-00055	47309	LBS/YR
Phosphorus	WQC-2023-BellPW-00074	0	LBS/YR
Phosphorus	WQC-2023-StePar*-00109	0.018	LBS/YR
Phosphorus	WQC-2023-LoCFEG-00134	0	LBS/YR
Phosphorus	WQC-2023-SpRiKe-00137	18.85	LBS/YR

Phosphorus	WQC-2023-SFEG-00162	0.0022	LBS/YR
Phosphorus	WQC-2023-LCEP-00164	0.0001	LBS/YR
Phosphorus	WQC-2023-OkHiAl-00185	10.96	LBS/YR

Phosphorus	WQC-2024-KiCoDi-00167	621.8	LBS/YR
Phosphorus	WQC-2024-LCEP-00181	0.0001	LBS/YR
Phosphorus	WQC-2024-SoSaSo-00210	0.0024	LBS/YR
Phosphorus	WQC-2024-NookIT-00123	19.1	LBS/YR

Pollutant	State Project No.	Estimated Load Reduction	Unit of Measure
Sediment	WQC-2021-SnohCD-00048	9.9	TONS/YR
Sediment	WQC-2021-Adopta-00063	0.04	TONS/YR
Sediment	WQC-2021-Adopta-00064	0	TONS/YR
Sediment	WQC-2022-SoSaSo-00004	0.144	TONS/YR
Sediment	WQC-2022-SoSaSo-00005	0.0036	TONS/YR
Sediment	WQC-2022-SnohCD-00022	0.02	TONS/YR
Sediment	WQC-2022-LandCo-00049	22.02	TONS/YR
Sediment	WQC-2022-PaloCD-00059	826.59	TONS/YR
Sediment	WQC-2022-OxCSAE-00062	641	TONS/YR
Sediment	WQC-2022-ChCoNR-00112	0	TONS/YR
Sediment	WQC-2022-BellPW-00115	0	TONS/YR
Sediment	WQC-2022-SkRiSC-00135	12.05	TONS/YR
Sediment	WQC-2022-StePar*-00141	0.001	TONS/YR

Sediment	WQC-2023-PaloCD-00005	1532.2	TONS/YR
Sediment	WQC-2023-ChCoNR-00039	0	TONS/YR
Sediment	WQC-2023-KooCom-00055	13960	TONS/YR
Sediment	WQC-2023-BellPW-00074	0	TONS/YR
Sediment	WQC-2023-StePar*-00109	0.027	TONS/YR
Sediment	WQC-2023-LoCFEG-00134	0	TONS/YR
Sediment	WQC-2023-SpRiKe-00137	36	TONS/YR
Sediment	WQC-2023-SFEG-00162	0.0029	TONS/YR
Sediment	WQC-2023-LCEP-00164	0.0001	TONS/YR
Sediment	WQC-2023-OkHiAl-00185	20.93	TONS/YR
Sediment	WQC-2024-KiCoDi-00167	37.67	TONS/YR
Sediment	WQC-2024-LCEP-00181	0.0001	TONS/YR
Sediment	WQC-2024-SoSaSo-00210	0.0031	TONS/YR
Sediment	WQC-2024-NookIT-00123	0.8	TONS/YR

Best Management Practices implemented in 2024

Table 9. Summary of BMPs Implemented 2024

BMP Type	Total Acres / Linear Length
Conservation Tillage Residue Management	337 Acres
Fence	22,673 Feet
Invasive Species/Noxious Weed Control	11,907 Feet 24.92 Acres
Natural Channel Restoration	875 Feet 1.13 Acres
Riparian Forest Buffer	65,838 Feet 267.17 Acres
Stream Habitat Improvement and Management	6,556 Feet 13.82 Acres
Streambank & Shoreline Protection	200 Feet
Tree/Shrub Establishment	5,666 Feet 6.85 Acres
Wetland Restoration	4.82 Acres

Table 10. BMPs Implemented per Project 2024

BMP	State Project No.	Project Title	Installed	Unit of Measure
Conservation Tillage Residue Management	WQC-2023-PaloCD-00005	Operation Residue: (Under)cover Crops & Direct Seeding on the Palouse	337	AC

Fence	WQC-2022-BellPW-00115	Little Squalicum Estuary Water Quality Improvements	975	FT
Fence	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	10427	FT
Fence	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	240	AC
Fence	WQC-2023-StePar*-00109	Wallace Acres Livestock Exclusion and Riparian Restoration	7920	FT
Fence	WQC-2023-StePar*-00109	Wallace Acres Livestock Exclusion and Riparian Restoration	125	AC
Fence	WQC-2024-KiCoDi-00167	Newaukum Creek Revegetation 2.0	2973	FT
Fence	WQC-2024-KiCoDi-00167	Newaukum Creek Revegetation 2.0	13.2	AC
Invasive Species/Noxious Weed Control	WQC-2021-Adopta-00064	Pilchuck River Tributary Buffer Enhancement Partnership; Coon Creek	1150	FT
Invasive Species/Noxious Weed Control	WQC-2021-Adopta-00064	Pilchuck River Tributary Buffer Enhancement Partnership; Coon Creek	3	AC
Invasive Species/Noxious Weed Control	WQC-2022-OxCSAE-00062	Upper Snoqualmie River Riparian Enhancement	2427	FT
Invasive Species/Noxious Weed Control	WQC-2022-OxCSAE-00062	Upper Snoqualmie River Riparian Enhancement	6.87	AC
Invasive Species/Noxious Weed Control	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	5292	FT

BMP	State Project No.	Project Title	Installed	Unit of Measure
Invasive Species/Noxious Weed Control	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	10.27	AC

Invasive Species/Noxious Weed Control	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	2385	FT
Invasive Species/Noxious Weed Control	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	1.78	AC
Invasive Species/Noxious Weed Control	WQC-2024-SoSaSo-00210	Segelsen Stillaguamish Riparian Restoration Phase II	653	FT
Invasive Species/Noxious Weed Control	WQC-2024-SoSaSo-00210	Segelsen Stillaguamish Riparian Restoration Phase II	3	AC
Natural Channel Restoration	WQC-2023-BellPW-00074	Padden Creek 24th-30th Streets Restoration Phase 2	875	FT
Natural Channel Restoration	WQC-2023-BellPW-00074	Padden Creek 24th-30th Streets Restoration Phase 2	1.13	AC
Riparian Forest Buffer	WQC-2021-Adopta-00063	West Fork Quilceda Creek Water Quality Partnership Tulalip Tribes and AASF	1719	FT
Riparian Forest Buffer	WQC-2021-Adopta-00063	West Fork Quilceda Creek Water Quality Partnership Tulalip Tribes and AASF	4.8	AC
Riparian Forest Buffer	WQC-2021-Adopta-00064	Pilchuck River Tributary Buffer Enhancement Partnership; Coon Creek	1150	FT
Riparian Forest Buffer	WQC-2021-Adopta-00064	Pilchuck River Tributary Buffer Enhancement Partnership; Coon Creek	3	AC
Riparian Forest Buffer	WQC-2021-SnohCD-00048	Restoring cold water habitat in Lower Pilchuck Creek	1600	FT
Riparian Forest Buffer	WQC-2021-SnohCD-00048	Restoring cold water habitat in Lower Pilchuck Creek	7	AC
Riparian Forest Buffer	WQC-2022-ChCoNR-00112	Chumstick Watershed Phased Riparian and Flow Improvement Project	275	FT
Riparian Forest Buffer	WQC-2022-ChCoNR-00112	Chumstick Watershed Phased Riparian and Flow Improvement Project	0.25	AC

BMP	State Project No.	Project Title	Installed	Unit of Measure
Riparian Forest Buffer	WQC-2022-LandCo-00049	WRIA 55/57 Restoration through BDAs/PALS, Buffers, and Outreach/Education	3000	FT
Riparian Forest Buffer	WQC-2022-LandCo-00049	WRIA 55/57 Restoration through BDAs/PALS, Buffers, and Outreach/Education	5.28	AC
Riparian Forest Buffer	WQC-2022-OxCSAE-00062	Upper Snoqualmie River Riparian Enhancement	2286	FT
Riparian Forest Buffer	WQC-2022-OxCSAE-00062	Upper Snoqualmie River Riparian Enhancement	5.57	AC
Riparian Forest Buffer	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	12712	FT
Riparian Forest Buffer	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	27.75	AC
Riparian Forest Buffer	WQC-2022-SkRiSC-00135	Nookachamps Riparian Restoration Phase II	2705	FT
Riparian Forest Buffer	WQC-2022-SkRiSC-00135	Nookachamps Riparian Restoration Phase II	21	AC
Riparian Forest Buffer	WQC-2022-SnohCD-00022	French Creek Tributary Riparian and Wetland Restoration	266	FT
Riparian Forest Buffer	WQC-2022-SnohCD-00022	French Creek Tributary Riparian and Wetland Restoration	1.4	AC
Riparian Forest Buffer	WQC-2022-SoSaSo-00004	Ladd Carpenter Creek Riparian Restoration	1200	FT
Riparian Forest Buffer	WQC-2022-SoSaSo-00004	Ladd Carpenter Creek Riparian Restoration	7.7	AC

BMP	State Project No.	Project Title	Installed	Unit of Measure
Riparian Forest Buffer	WQC-2022-SoSaSo-00005	Anderson's Bambooland Riparian Restoration Phase I	1850	FT
Riparian Forest Buffer	WQC-2022-SoSaSo-00005	Anderson's Bambooland Riparian Restoration Phase I	6.2	AC
Riparian Forest Buffer	WQC-2022-StePar*-00141	Snoqualmie Stewardship Riparian Restoration and Maintenance	1330	FT
Riparian Forest Buffer	WQC-2022-StePar*-00141	Snoqualmie Stewardship Riparian Restoration and Maintenance	2.9	AC
Riparian Forest Buffer	WQC-2023-ChCoNR-00039	Leavenworth Watersheds - Phased Water Quality Improvement Project	970	FT
Riparian Forest Buffer	WQC-2023-ChCoNR-00039	Leavenworth Watersheds - Phased Water Quality Improvement Project	1.01	AC
Riparian Forest Buffer	WQC-2023-KooCom-00055	Water Quality Improvements on Yellowhawk Creek	1493	FT
Riparian Forest Buffer	WQC-2023-KooCom-00055	Water Quality Improvements on Yellowhawk Creek	3.425	AC
Riparian Forest Buffer	WQC-2023-LCEP-00164	Burnt Bridge Creek Water Quality, Education, and Restoration Project	417	FT
Riparian Forest Buffer	WQC-2023-LCEP-00164	Burnt Bridge Creek Water Quality, Education, and Restoration Project	3	AC
Riparian Forest Buffer	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	2385	FT
Riparian Forest Buffer	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	0.95	AC
Riparian Forest Buffer	WQC-2023-SFEG-00162	Little Carey's Stream and Wetland Restoration	1500	FT

BMP	State Project No.	Project Title	Installed	Unit of Measure
Riparian Forest Buffer	WQC-2023-SpRiKe-00137	Rock and Hangman Creeks Riparian Restoration and Water Quality Improvement	6000	FT
Riparian Forest Buffer	WQC-2023-SpRiKe-00137	Rock and Hangman Creeks Riparian Restoration and Water Quality Improvement	40	AC
Riparian Forest Buffer	WQC-2023-StePar*-00109	Wallace Acres Livestock Exclusion and Riparian Restoration	3679	FT
Riparian Forest Buffer	WQC-2023-StePar*-00109	Wallace Acres Livestock Exclusion and Riparian Restoration	1.94	AC
Riparian Forest Buffer	WQC-2024-KiCoDi-00167	Newaukum Creek Revegetation 2.0	3200	FT
Riparian Forest Buffer	WQC-2024-KiCoDi-00167	Newaukum Creek Revegetation 2.0	13.2	AC
Riparian Forest Buffer	WQC-2024-LCEP-00181	Salmon Creek Clean Water Enhancement and Education	476	FT
Riparian Forest Buffer	WQC-2024-LCEP-00181	Salmon Creek Clean Water Enhancement and Education	1	AC
Riparian Forest Buffer	WQC-2024-NookIT-00123	South Fork Nooksack Temperature TMDL Implementation 2024	15625	FT
Riparian Forest Buffer	WQC-2024-NookIT-00124	South Fork Nooksack Temperature TMDL Implementation 2024	96.8	AC

BMP	State Project No.	Project Title	Installed	Unit of Measure
Stream Habitat Improvement and Management	WQC-2023-LoCFEG-00134	SF TOUTLE LOWER BROWNELL RIPARIAN RESTORATION	4171	FT

Stream Habitat Improvement and Management	WQC-2023-LoCFEG-00134	SF TOUTLE LOWER BROWNELL RIPARIAN RESTORATION	12.86	AC
Stream Habitat Improvement and Management	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	2385	FT
Stream Habitat Improvement and Management	WQC-2023-OkHiAl-00185	Triple Creek Water Quality Restoration Project, Phase 3	0.96	AC
Streambank & Shoreline Protection	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	200	FT
Streambank & Shoreline Protection	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	0	AC
Tree/Shrub Establishment	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	5666	FT
Tree/Shrub Establishment	WQC-2022-PaloCD-00059	Full Stream Ahead! Riparian Restoration Innovations on the Palouse River	6.85	AC
Wetland Restoration	WQC-2022-BellPW-00115	Little Squalicum Estuary Water Quality Improvements	0	FT
Wetland Restoration	WQC-2022-BellPW-00115	Little Squalicum Estuary Water Quality Improvements	4.85	AC

Appendix B. Forest Practices Adaptive Management Program Results

The following document includes the status of CMER and Non-CMER Clean Water Act milestones as of July 2024.

The 2024 milestones update to the Board was delivered at the August 2024 Board meeting.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

July 24, 2024

TO: Forest Practices Board

FROM: Chris Briggs, Forestry Policy Lead, Washington Department of Ecology CB

SUBJECT: Clean Water Act Assurances Milestones Update

The Washington State Department of Ecology (Ecology) committed to providing the Forest Practices Board (Board) with periodic updates on progress being made to meet corrective milestones established for retaining the Clean Water Act 303(d) Assurances (Assurances) for the Forest Practices Rules (Title 222 WAC) and Programmatic Habitat Conservation Plan (HCP, 2006). The last update to the Board was delivered in August 2023. Ecology continues to support the adaptive management program (AMP) and track the progress of the corrective milestones.

For this update Ecology would like to acknowledge and thank staff from Department of Natural Resources' (DNR's) Small Forest Landowner Office along with the small forest landowners from across the state who participated in voluntary field surveys to evaluate small landowner roads. One hundred eighty-one surveys were completed, including over 1,000 road segments. Survey results indicate little sediment delivery potential to water resources, and where potential for sediment delivery was observed landowners routinely took active measures to mitigate potential problem areas. These surveys provided a valuable opportunity for small forest landowners to learn about forest practices road construction and maintenance obligations and the financial assistance programs available to help with timber and forest road planning.

In addition to the milestones recognized in this update, Ecology maintains strong interest in the Board's rulemaking efforts to adopt new prescriptions for the protection of western Washington Type Np (non-fish, perennial) streams. Ecology will continue to actively participate in this rulemaking process and provide feedback to the Board and DNR when appropriate. Expedient progress on the draft and final rules remains critical for improving water quality protections on Forest Practices HCP-covered lands.

Attached are two tables showing the milestones and their status. Points of note are in red font and reflect changes since our last update in 2023:

- Table 1 shows the CMER Research Milestones. Scoping, study design, implementation and complete (final report) are used to indicate the different steps of a Clean Water Act (CWA) project and occur in different calendar years. A CWA project may have completed scoping and study design but be delayed or off-track for implementation or completion.
- Table 2 shows the non-CMER project milestones. These milestones are implemented outside of the Cooperative Monitoring, Evaluation, and Research (CMER) program and are largely within the control of the Forest Practices Operations Section of the DNR or the Timber, Fish and Wildlife Policy Committee (Policy).

Please contact me if you have any questions or concerns at (360) 890-5882.

Attachments: Table 1. Summary CMER Research Milestones and their status.
Table 2. Summary Non-CMER Project Milestones and their status.

Table 11. Summary CMER Research Milestones and their current status.

CMER Research Milestones		
Description of Milestone		**Status as of July 2024**
2009	Complete: Hardwood Conversion – Temperature Case Study (Completed as data report)	**Completed** June 2010
	Study Design: Wetland Mitigation Effectiveness	**Completed** October 2010
2010	Study Design: Type N Experimental in Incompetent Lithology	**Completed** August 2011
	Complete: Mass Wasting Prescription-Scale Monitoring	**Completed** June 2012
	Scope: Mass Wasting Landscape-Scale Effectiveness	**Milestone Eliminated**
	Scope: Eastside Type N Effectiveness	**Completed** November 2013
2011	Complete: Solar Radiation/Effective Shade	**Completed** June 2012
	Complete: Bull Trout Overlay Temperature	**Completed** May 2014
	Implement: Type N Experimental in Incompetent Lithology	**Completed** October 2017
	Study Design: Mass Wasting Landscape-Scale Effectiveness	**Milestone Eliminated**

CMER Research Milestones		
Description of Milestone		**Status as of July 2024**
2012	Complete: Buffer Integrity-Shade Effectiveness	**Completed** November 2018
	Literature Synthesis: Forested Wetlands Literature Synthesis	**Completed** January 2015
	Scoping: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.	**Completed** April 2017
	Study Design: Eastside Type N Effectiveness	**Completed** March 2018
2013	Scoping: Forested Wetlands Effectiveness Study	**Completed** December 2016
	Wetlands Program Research Strategy	**Completed** January 2015
	Scope: Road Prescription-Scale Effectiveness Monitoring	**Completed** March 2016
	Study Design: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.	**Completed** Study is being designed and implemented in five separate projects. September 2023
	Implement: Eastside Type N Effectiveness	**Underway** Study is in implementation through 2025. Study should be complete by 2028.

CMER Research Milestones		
Description of Milestone		**Status as of July 2024**
2014	Complete: Type N Experimental in Basalt Lithology	**Completed** August 2017
	Study Design: Road Prescription-Scale Effectiveness Monitoring	**Completed** February 2017
	Scope: Type F Experimental Buffer Treatment	**Completed** December 2015
	Implementation: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting Renamed: Unstable Slopes Criteria - Empirical Evaluation of Shallow Landslide Susceptibility, Frequency, and Runout by Landform	**Underway** Final report expected in 2025.
	Study Design: Forested Wetlands Effectiveness Study	**Completed** December 2019
2015	Complete: First Cycle of Extensive Temperature Monitoring	**Completed** April 2019
	Scope: Watershed Scale Assess. of Cumulative Effects	**Off Track** Project intended to follow other effectiveness monitoring studies which are behind schedule. Funding to begin in 2029.
	Scope: Amphibians in Intermittent Streams Renamed: Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow Project	**Underway** Expected July 2024
2017	Study design: Watershed Scale Assess. of Cumulative Effects	**Off Track** Expected 2029

CMER Research Milestones		
Description of Milestone		**Status as of July 2024**
2018	Complete: Roads Sub-basin Effectiveness	**Not Progressing** Project to be re-scoped in 2029 with completion in 2032
	Implement: Watershed Scale Assess. of Cumulative Effects	**Off Track** Implementation in 2030
	Complete: Type N Experimental in Incompetent Lithology	**Complete** August 2021
	Complete: Type F Experimental Buffer Treatment (Pilot study phase named: Westside Type F Riparian Prescription Effectiveness Project Pilot Study)	**Underway** Expected December 2024
2019	Complete: Eastside Type N Effectiveness	**Underway** Projected completion in 2028
2019	Complete: Forested Wetlands Effectiveness Study	**Underway** Expected June 2028
2024	Complete: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.	**Underway** Study is being implemented in five separate projects. Expected 2027

Table 12. Summary Non-CMER Project Milestones and their current status.

Non-CMER Project Milestones		
Summarized Description of Milestone		**Status as of July 2024**
2009	July 2009: CMER budget and work plan will reflect CWA priorities.	**Completed** October 2010
	September 2009: Identify a strategy to secure stable, adequate, long-term funding for the AMP.	**Completed** October 2010
	October 2009: Complete Charter for the Compliance Monitoring Stakeholder Guidance Committee.	**Completed** December 2009
	December 2009: Initiate a process for flagging CMER projects that are having trouble with their design or implementation.	**Completed** November 2010
	December 2009: Compliance Monitoring Program to develop plans and timelines for assessing compliance with rule elements such as water typing, shade, wetlands, haul roads and channel migration zones.	**Completed** March 2010
	December 2009: Evaluate the existing process for resolving field disputes and identify improvements that can be made within existing statutory authorities and review times.	**Completed** November 2010
	December 2009: Complete training sessions on the AMP protocols and standards for CMER, and Policy and offer to provide this training to the Board. Identify and implement changes to improve performance or clarity at the soonest practical time.	**Completed** May 2016
2010	January 2010: Ensure opportunities during regional RMAP annual reviews to obtain input from Ecology, WDFW, and tribes on road work priorities.	**Completed** September 2011

Non-CMER Project Milestones		
Summarized Description of Milestone		**Status as of July 2024**
	February 2010: Develop a prioritization strategy for water type modification review.	**Completed** March 2013
	March 2010: Establish online guidance that clarifies existing policies and procedures pertaining to water typing.	**Completed** March 2013
	June 2010: Review existing procedures and recommended any improvements needed to effectively track compliance at the individual landowner level.	**Completed** November 2010
	June 2010: Establish a framework for certification and refresher courses for all participants responsible for regulatory or CMP assessments.	**Completed** September 2013
	July 2010: Assess primary issues associated with riparian noncompliance (using the CMP data) and formulate a program of training, guidance, and enforcement believed capable of substantially increasing the compliance rate.	**Completed** August 2012
	July 2010: Ecology in Partnership with DNR and in Consultation with the SFL advisory committee will develop a plan for evaluating the risk posed by SFL roads for the delivery of sediment to waters of the state.	**Completed** December 2018
	July 2010: Develop a strategy to examine the effectiveness of the Type N rules in protecting water quality at the soonest possible time that includes: a) Rank and fund Type N studies as highest priorities for research, b) Resolve issue with identifying the uppermost point of perennial flow by July 2012, and c) Complete a comprehensive literature review examining effect of buffering headwater streams by September 2012.	**Not Progressing** Part 'b' to be addressed after water typing system rule and Board Manual work is completed (BM 22 part 2).

Non-CMER Project Milestones		
Summarized Description of Milestone		**Status as of July 2024**
	October 2010: Conduct an initial assessment of trends in compliance and enforcement actions taken at the individual landowner level.	**Completed** November 2010
	October 2010: Design a sampling plan to gather baseline information sufficient to reasonably assess the success of alternate plan process.	**Completed** December 2014
	December 2010: Initiate process of obtaining an independent review of the Adaptive Management Program.	**Completed** February 2021
2011	December 2011: Complete an evaluation of the relative success of the water type change review strategy.	**Completed** March 2013
	December 2011: Provide more complete summary information on progress of industrial landowner RMAPs.	**Completed** September 2011
2012	October 2012: Reassess if the procedures being used to track enforcement actions at the individual landowner level provides sufficient information to potentially remove assurances or otherwise take corrective action.	**Completed** June 2012
	Initiate a program to assess compliance with the Unstable Slopes rules.	**Completed** October 2017
2013	November 2013: Prepare a summary report that assesses the progress of SFLs in bringing their roads into compliance with road best management practices, and any general risk to water quality posed by relying on the checklist RMAP process for SFLs.	**Completed** June 2024 State, Tribal, and Small Landowner caucus staff cooperatively developed a plan to conduct online outreach and field surveys to inform the condition of SFL roads. Implementation began in 2019. 91% of the original target population was successfully surveyed.

Status terminology:

"Completed"	Milestone has been satisfied (includes those both on schedule and late).
"On Track"	Work is occurring that appears likely to satisfy milestone on schedule.
"Underway"	Work towards milestone is actively proceeding, but likely off schedule.
"Earlier Stage Underway"	Project initiated but is at an earlier stage (off schedule) then the listed milestone.
"Not Progressing"	No work has begun, or work initiated has effectively stopped.
"Off Track"	1) No work has begun and inadequate time remains, 2) key stakeholders are not interested in completing the milestone, or 3) attempt at solution was inadequate and no further effort at developing an acceptable solution is planned.

Appendix C. Priority Watersheds for 2025

See section 3.2.1 for an introductory overview of the work of nonpoint field staff.

SWRO Priority Watersheds

Priority Watershed Name: Boise, Pussyfoot, and Second Creeks—Enumclaw Plateau

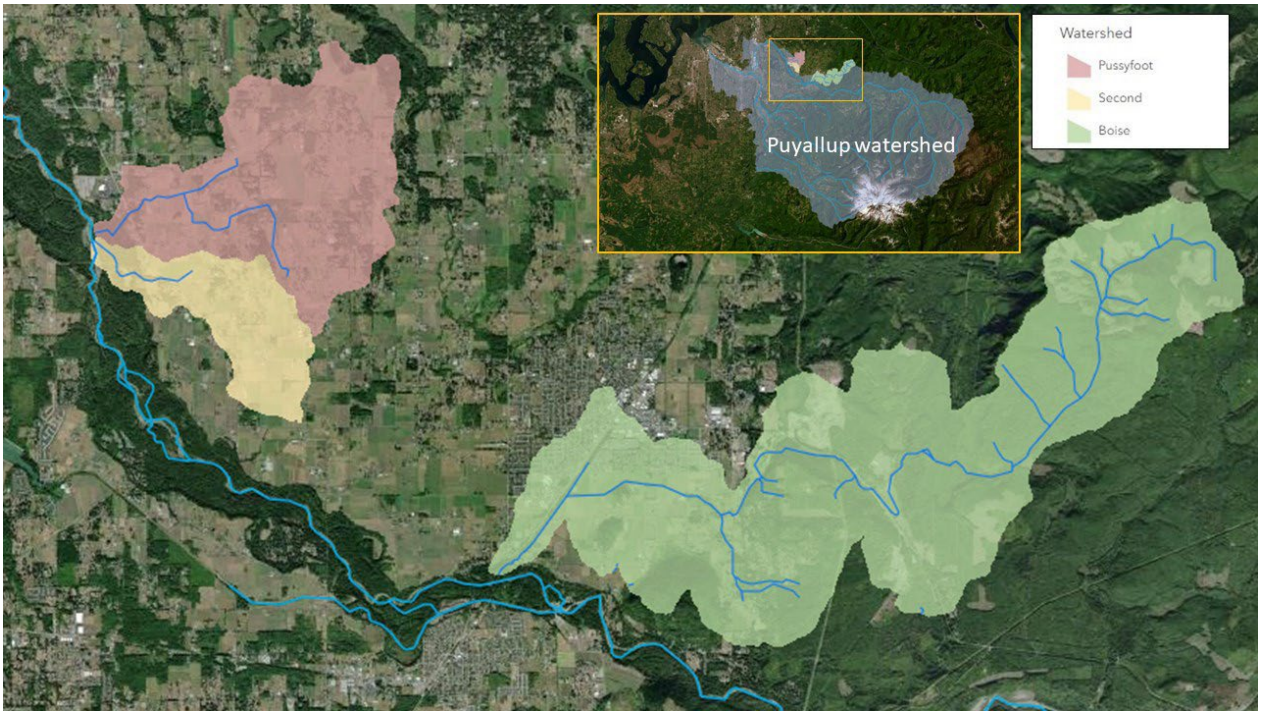

Figure 44. Map showing White River TMDL Priority Watersheds: Boise, Pussyfoot, and Second creeks.

Implementing: Puyallup Watershed Fecal Coliform TMDL; Lower White River pH TMDL

Summary/Context Info:

Since 2014, Ecology nonpoint staff have been collaborating with other state and local partners to monitor, identify, and address pollution issues on the WRIA10 (Puyallup-Lower White Basin) side of the Enumclaw Plateau. Ecology identified three tributaries within the Enumclaw plateau as priority Watersheds: Boise Creek, Pussyfoot Creek, and Second Creek. Nonpoint pollution inputs within these Watersheds significantly increase during the wet season due to the poor drainage throughout the plateau. External partners include the Muckleshoot Tribe, U.S. Natural Resources Conservation Service, Washington State Department of Agriculture, King County Livestock, King County Public Health, King County Department of Water and Land Resources, King County Public Health, King Conservation District, City of Enumclaw, Enumclaw Community Association, and others.

Priority Actions Projected for 2025:

Education and Outreach

Ongoing:

- **Continue to maintain and update Enumclaw Partnership webpage:** This webpage compiles reports and data, as well as Partnership meeting minutes and presentation slides. The page is a resource both for Partnership members and for landowners.
- **Translations:** Ensure that all education and outreach materials are translated into Spanish.

Projected:

- **Create new internal webmap for partners:** Working with SWRO Nonpoint's Education and Outreach Specialist and others, we will explore the feasibility of combining several of the many existing partner data sites into one webmap where partners can go to see Watershed data and sites of concern.
- **Improved Partnership webpage for the public:** Working with SWRO Nonpoint's Education and Outreach Specialist and others, we will draft a more audience-appropriate webpage explaining the basics of the Enumclaw water pollution issues.
- **Explore feasibility of hosting a town hall-style meeting:** Working with SWRO Nonpoint's Education and Outreach Specialist and others, we will explore the feasibility of hosting a joint town-hall style meeting in coordination with King Conservation District and other partners. The purpose of this meeting would be to give community members an opportunity to ask questions of Ecology and to share our work throughout the Watershed.

Financial Assistance

Ongoing:

- **Provide partners with front-end feedback on grant proposals:** In an effort to encourage and assist our partners to draft successful grant proposals, we will coordinate with grants staff to provide grantees with the option to submit a notice of intent and receive feedback prior to the fall submittal deadline for the Water Quality Combined grant program. If additional Direct Implementation Fund (DIF) money becomes available, evaluate whether implementation projects at nonpoint sites of concern would be appropriate for funding.
- **Provide information to landowners**: We will continue to provide information about technical and financial assistance available to

landowners as they move forward with BMP implementation.

- **Manage awarded Direct Implementation Fund (DIF) grant project**: We will work with awardee King County Water and Land Resources Department to manage the $110,000 grant for the riparian project on Boise Creek.

Partner Coordination

Ongoing:

- **Continue to hold sites of concern prioritization meetings with partners:** Coordinate and facilitate meetings with partners directly involved with BMP implementation on the plateau to discuss and receive feedback about future and ongoing enforcement activities. This will include standing, recurring 1:1 meetings with Muckleshoot Tribe natural resources staff, 1:1 meetings with WSDA staff to coordinate on dairy properties and those undergoing CAFO permitting, quarterly and ad-hoc small group meetings with King Conservation District staff, and frequent communication with King County Stormwater Services staff.
- **Hold quarterly meetings to facilitate sharing of water quality monitoring data:** Continue to hold quarterly meetings with Tribal, federal, state, and local water quality monitoring staff to share data, facilitating the coordination and prioritization of implementation efforts.
- **Continue to participate in monthly King County Peer-to-Peer engagement meetings:** Provide feedback and direction to the peer-to-peer engagement group.

Projected:

- **Build relationships with King County Public Benefit Ratings System (PBRS) and Agricultural Drainage Program (ADAP) staff:** PBRS and ADAP are two landowner incentive programs taking place on the Plateau that may prove effective as additional carrots and/or sticks to use in Nonpoint work.
- **Schedule and facilitate meeting between KCD Riparian program staff and Ecology's Hangman Watershed lead:** In this meeting, Hangman Watershed Lead staff would present the basics of the Hangman Watershed's innovative riparian rental program. We would then discuss whether such a program could be viable in the Enumclaw area.

Pollution Identification/Watershed Evaluation

Ongoing:

- **Continue to identify sites of concern:** Continue to work in the field to check on existing sites of concern and identify additional sites of concern that have not yet been prioritized. By end of the wet season, check on every site of concern (110+). Systematically identify and document sites of concern in the NPI database.

- **Continue to use monitoring data to refine nonpoint efforts:** As additional monitoring data becomes available, staff will use it, in coordination with visual observations to refine the existing prioritization scheme for contacting sites of concern.

Compliance/Technical Assistance Activities

Ongoing:

- **Provide technical assistance and compliance follow-up to area livestock owners:** Ecology will work to connect with area livestock owners to provide technical assistance, following the priorities laid out in the reach prioritization scheme developed in 2024. For example, most landowners in high-priority reaches have now been contacted, so in 2025, we will move on to contacting landowners in reaches ranked as medium-priority, while simultaneously continuing to work with landowners in those high-priority reaches.
- **Compliance steps:** Meanwhile, nonpoint staff will continue working on compliance steps for properties that have previously received TA1 and TA2 letters and been in conversation with Nonpoint staff. Staff will send three previously prepared warning letters and prepare penalties for a property with an administrative order that has not followed the order.
- **Site visits:** Ecology staff will conduct in-person site visits—sometimes joint site visits with King Conservation District staff or other partners—on parcels that have been identified as sites of concern. When necessary, site visits will be conducted with an interpreter onsite as some landowners on the Plateau are Spanish speakers. Site visits have led to landowners taking recommended steps or Ecology taking further enforcement actions.
- **Continue to increase language access in technical assistance and compliance actions**: Continue to include Spanish translation taglines in letters to Enumclaw residents, as well as translated versions of handouts (such as the Landowner Self Assessment Tool) and translated versions of the letters themselves. Continue to use LanguageLink or in-house, on-site interpretation services to interpret conversations with Spanish-speaking landowners. Continue to use in-house translation services and State translation vendor contracts to translate documents such as farm plans. Staff will continue to prioritize facilitating language access so that all landowners on the Plateau, regardless of language, can help us protect water quality in the Lower White River Watershed.
- **Evaluate and respond to incoming ERTS complaints:** Continue to respond directly or coordinate with WSDA, King County, and City of Enumclaw staff to address nonpoint-related pollution sources.

Priority Watershed Name: Deschutes River, Percival Creek, and Budd Inlet Tributaries

Figure 45. The Deschutes Watershed is pictured in blue. An inset shows the location of the Deschutes Watershed within Western Washington.

Implementing: Deschutes River, Percival Creek, and Budd Inlet Tributaries Multiparameter TMDL

Summary/Context Info:

The Deschutes River, Percival Creek, and Budd Inlet Tributaries TMDL was submitted to EPA in 2018. These waterbodies are impaired for bacteria, temperature, dissolved oxygen, and nutrients. Partners involved include: Thurston County Environmental Health, Thurston County Community Agriculture Program, Thurston Conservation District, Cities of Olympia, Lacey, and Tumwater, Squaxin Island Tribe, WRIA 13 Lead Entity, South Puget Sound Salmon Enhancement Group, Capitol Land Trust, Deschutes Estuary Restoration Team, Washington Department of Fish and Wildlife, and others.

Priority Actions Projected for 2025:

Education and Outreach

Projected:

- **Explore potential outreach opportunities:** Working with SWRO Nonpoint's Education and Outreach Specialist, explore various outreach options (mailer, fact sheets, town hall-style meetings, webpages) and decide on one action to complete in 2025. This may include identifying targeted areas where a joint mailer and/or a door-knocking campaign may be warranted. Use Thurston County Environmental Health ambient monitoring and stream segmentation data along with Ecology field observations to determine areas where a mailer may have positive outcomes. Possible options include Reichel Creek and Chambers Creek.

Financial Assistance

Ongoing:

- **Provide partners with front-end feedback on grant proposals:** In an effort to encourage and assist our partners to draft successful grant proposals, we will coordinate with grants staff to provide grantees with the option to submit a notice of intent and receive feedback prior to the fall submittal deadline for the Water Quality Combined grant.
- We will also coordinate with grants staff to evaluate whether implementation projects at nonpoint sites of concern would be appropriate for a DIF funding application.
- **Provide information to landowners**: We will provide information about technical and financial assistance available to landowners as they move forward with BMP implementation.

Partner Coordination

Ongoing:

- **Hold sites of concern prioritization meetings with state and local partners and entities:** Ecology staff will coordinate and facilitate meetings with partners directly involved with BMP implementation to discuss and receive feedback about future and ongoing enforcement activities. This will include 1:1 meetings with Squaxin Island Tribe natural resources staff, 1:1 meetings with WSDA staff to coordinate on dairy properties and those undergoing CAFO permitting, and every-other-month 1:1 meetings with Thurston Conservation District staff. In addition, we will meet with Thurston County Environmental Health program staff as needed to coordinate on parcels of concern.
- **Continue to facilitate multi-agency Task Force**: Ecology staff brought together partners from several Thurston County programs, WDFW, DNR, Thurston Conservation District, WSDA, Olympic Region Clean Air Agency, and Ecology programs such as SEA, HWTR, Water Resources, Construction Stormwater, and Toxics Cleanup Program to coordinate regarding a particularly challenging compliance case. These monthly meetings are

ongoing and are a chance for programs to keep each other updated and stay on the same page regarding the case. Ecology staff will continue to facilitate the meetings until the case is resolved.

- **Attend partner meetings to build relationships and knowledge about goings-on in the Watershed:** Ecology staff will attend monthly WRIA 13 Lead Entity meetings as well as quarterly Thurston Shellfish Protection District Pollution Identification and Control meetings.

Projected:

- **Schedule and facilitate meeting between TCD Riparian program staff and Ecology's Hangman Watershed lead:** In this meeting, Hangman Watershed Lead staff would present the basics of the Hangman Watershed's innovative riparian rental program. We would then discuss whether such a program could be viable in the Enumclaw area.
-

Pollution Identification/Watershed Evaluation

Ongoing:

- **Watershed evaluations:** This wet season, staff have already visited all existing sites of concern in the Watershed as of early 2025. Staff will re-check select sites of concern as needed this season, and next season begin the process of re-checking all sites. Staff will document sites of concern in the Nonpoint Implementation (NPI) database.
- **Sites of concern ranking/prioritization:** Staff assign prioritize sites following Watershed evaluations and will continue to reassess site risk and reassign risk as needed.

Projected:

- **Explore options for viewing more parcels:** Many parcels along the Deschutes, a navigable river, are not visible from the public right-of-way. Explore the possibility of wading or floating sections of the Deschutes. Cycling along sections of the public Chehalis-Western Trail and Yelm-Tenino Trail may also afford views that could not be obtained by car.

Compliance/Technical Assistance Activities

Ongoing:

- **Provide technical assistance to area livestock owners:** Ecology will work to connect with area livestock owners to provide technical assistance.
    - **Letters and other communications:** Staff will continue following up with properties that have received letters but still need to implement BMPs.

- **Site visits:** As we talk with landowners, the opportunity for site visits may arise. We will try to encourage as many site visits as possible.
- **Compliance steps:** Nonpoint staff will continue to work on finalizing the agreed order for one property and will evaluate if further action is needed on this and other properties.
- **Evaluate and respond to incoming ERTS complaints:** Nonpoint staff will respond directly to or coordinate with WSDA and Thurston County to address nonpoint-related pollution sources.

Projected:

- **New technical assistance letters:** Staff will select five to ten of the highest-risk properties that have not received letters from Ecology yet. These properties will receive TA letters.

Priority Watershed: Willapa Bay

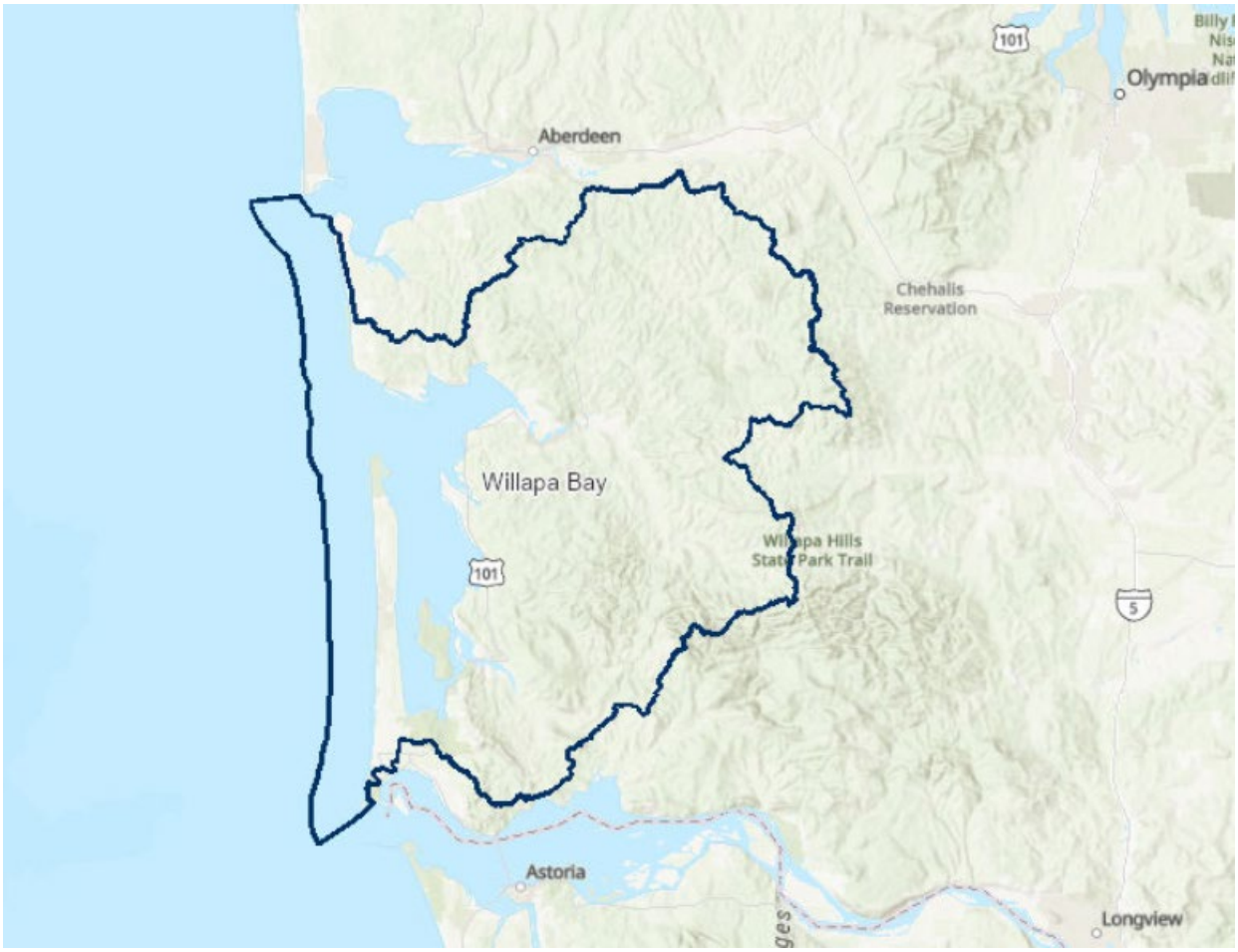

Figure 46. Map of Willapa Bay Watershed

Implementing: Willapa River Watershed Temperature TMDL/ Willapa River Oxygen Dissolved TMDL

Summary/Context Information:

Nonpoint work within this area focuses on working with local partners such as the Conservation Districts, Department of Health, and local environmental groups. Willapa Bay sits along the Southwestern coast of Washington and is known for its abundant shellfish and areas of wildlife refuge. Willapa Bay and the Willapa River have been identified as "water quality limited" due to bacterial pollution from human and animal sources. Fecal coliform sources threaten or impair shellfish harvest areas of Willapa Bay, which produces over 50% of Washington's shellfish. Ground water and recreational uses are also threatened by bacterial contamination. Most of the bacterial problems in the Watershed appear to be generated by nonpoint sources: on-site septic systems, combined sewer overflows, and livestock manure. Some corrections of the major sources have occurred, but problems in other areas have led to shellfish harvesting restrictions.

Given the ecological and economic importance of this Watershed, as well as the continued threats to water quality, this area has been prioritized for nonpoint source pollution reduction efforts. Addressing these challenges is essential to restoring and protecting water quality, maintaining shellfish production, and safeguarding public health.

Priority Actions Projected for 2025:

Education and Outreach

- **Create and Distribute Joint Mailer:** Mailers will be distributed to the Willapa Bay Watershed residents and landowners. These mailers will reinforce the work that Ecology is doing in the area.
- **Mailer Response:** Staff will track and respond to phone calls, e-mails, and requests for site visits from landowners who received the mailer to provide educational materials and refer to appropriate partner organizations as appropriate.

Financial Assistance

- **Information Sharing:** Staff will provide information to:
    - Landowners regarding financial assistance opportunities through local partners (i.e. conservation district cost-sharing programs).
    - Local partners regarding grant funding opportunities.

Partner Coordination

- **Sites of concern response:** Staff will coordinate with partners to facilitate working with parcels that have been identified as potential pollution sources.

- **Partner meeting:** Staff will participate in an in-person meeting with partners to explain compliance pathway and establish a connection with local partners. Staff will attend regular meetings with partners to update them about sites of concern.

Pollution Identification/Watershed Evaluation

- **Complaint/Referral Response:** Staff respond to verified nonpoint reported concerns in the area submitted through Ecology's complaint system (ERTS).
- **Watershed Evaluation:** Watershed evaluations will be conducted primarily in the wet season. Watershed evaluations will also take place if monitoring data show areas exceeding water quality standards and threatened shellfish growing areas. At least one Watershed evaluation will be completed by December 2025.

Compliance/Technical Assistance Activities

- **Responding to Responsible Parties:** Ecology Staff will utilize the Nonpoint Desk Book Manual and compliance flowchart timelines to respond to sites identified during Watershed assessments or via reported concerns. If local partners are not currently working with the responsible party, staff will respond by phone email, or letter after prioritizing the site of concern to protect water quality.

Monitoring Activities

- **Source Identification:** As appropriate and feasible, staff will sample higher in the Watershed when partner ambient sites show exceedances downstream.
-

Priority Watershed: Eld Inlet, Henderson Inlet, and Nisqually Reach

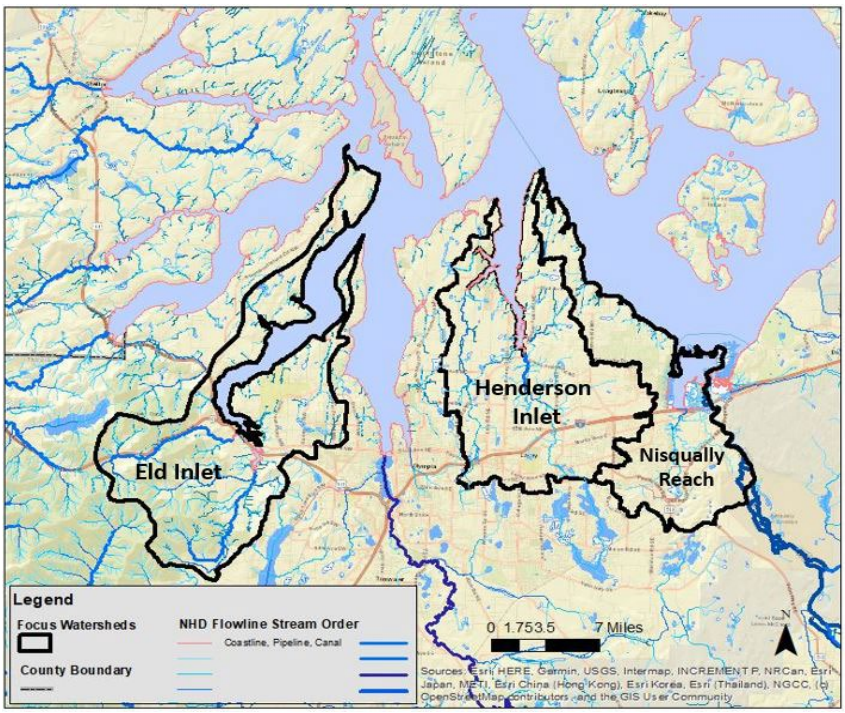

Figure 47. Map showing locations of the three priority Watersheds in South Puget Sound

Implementing: Puget Sound Partnership Action Agenda

Nonpoint staff work with local partners such as Thurston County Public Health and Social Services, Thurston Conservation District, Thurston County Code Enforcement, Henderson Inlet/Nisqually Reach Shellfish Protection District, and landowners to reduce nonpoint sources of bacteria pollution originating from domestic and agricultural activities.

Summary/Context Info:

The Eld and Henderson Inlets and the Nisqually Reach drainage areas are located within the South Puget Sound, known for low flushing rates and abundant shellfish habitat. These Watersheds have shellfish growing areas identified by DOH as at risk of closure due to elevated marine fecal coliform levels. These Watersheds also support salmon habitat in rural, suburban, and urban areas and the majority of land use is residential with a low density of small agricultural sites. SWRO staff have been coordinating nonpoint efforts in these Watersheds in concert with local partners' outreach and PIC work.

Priority Actions Projected for 2025:

Education and Outreach

- **Share educational outreach resources**: Ecology staff will provide landowners and local community members with resources outlining nonpoint water quality education, by distributing outreach materials such as mailers and brochures.

Financial Assistance

- **Information Sharing:** Staff will provide information to:
    - Landowners regarding financial assistance opportunities through local partners (i.e. conservation district cost-sharing programs).
    - Local partners regarding grant funding opportunities.

Partner Coordination

- **Sites of concern response:** Staff will coordinate with partners to facilitate working with parcels that have been identified as potential pollution sources.
- **In-person meeting:** Staff will participate in an in-person meeting with partners to talk about sites of concern and water quality issues in the area
- **Partner Meetings:** Staff will continue to participate in quarterly PIC meetings, yearly Shellfish Protection District meetings, and monthly Thurston Conservation District meetings to provide updates on compliance.

Pollution Identification/Watershed Evaluation

- **Complaint/Referral Response:** Staff respond to verified nonpoint reported concerns in the area submitted through Ecology's complaint system (ERTS).

- **Watershed Evaluation**: Watershed assessment will be conducted primarily in the wet season. Watershed evaluations will also take place if monitoring data show areas

exceeding water quality standards and threatened shellfish growing areas. At least one Watershed assessment will be completed by December 2025.

Compliance/Technical Assistance Activities

- **Responding to Responsible Parties:** Ecology Staff will utilize the Nonpoint Desk Book Manual and compliance flowchart to respond to sites identified during Watershed assessments or via reported concerns. If local partners are not currently working with the responsible party, staff will respond by phone email, or letter after prioritizing the site of concern to protect water quality

Monitoring Activities

- **Investigatory Collection:** Staff will take opportunistic samples when responding to complaints or referrals on a per-case basis.
- **Partner PIC monitoring:** Staff utilize data collected by the local health department of the WA State Department of Health to respond to elevated bacteria detected in assigned focus Watersheds.

Priority Watershed: Oakland Bay and Johns Creek

Figure 48. Map of Oakland Bay and Johns Creek Watershed

Implementing: Puget Sound Partnership Action Agenda; Oakland Bay, Hammersley Inlet Tributaries Bacteria TMDL

Summary/Context Information:

Oakland Bay is a shallow, poorly flushed embayment connected to the South Puget Sound, with a history of poor water quality and an extremely productive shellfish industry. Because of its poorly flushed nature, shallow waters, and increasing population, Oakland Bay continues to experience declining water quality. Johns Creek enters Oakland Bay at its northwestern shore. Multiple water quality parameters in Johns Creek have impairments, including bacteria, temperature, and dissolved oxygen. Nonpoint staff have identified agricultural operations and residential onsite septic systems that are impacting the water of both Oakland Bay and Johns Creek

Priority Actions Projected for 2025:

Education and Outreach

- Share educational outreach resources: Ecology staff will provide landowners and local community members with resources outlining nonpoint water quality education, by distributing outreach materials such as mailers and brochures. The outreach materials will highlight the available technical and financial resources.

Financial Assistance

- Information sharing: Ecology staff will provide landowners with information regarding financial assistance available through local partners for BMP implementation and grant funding opportunities.

Partner Coordination

- Conservation District: Ecology staff will participate in Mason Conservation District (MCD) board meetings to identify water quality concerns and uphold working connections.

Pollution Identification/Watershed Evaluation

- Watershed Evaluation: Ecology staff will conduct Watershed evaluations primarily during the rainy season. Evaluations will also be conducted throughout the year as shellfish pollution concerns deem further assessments necessary.
- Complaint/Referral Response: Ecology staff will continue to respond to nonpoint water quality concerns via partner referrals or through ecology's complaint system. Staff will continue to assess progress on existing sites of concern.

Compliance/Technical Assistance Activities

- Responding to responsible parties: Ecology staff will continue to utilize the Nonpoint Desk Book Manual and compliance flowchart to respond to sites identified as sites of concern through windshield assessments or reported from a third party. If local partners are not currently working with the responsible party, staff will respond by phone email, or letter after prioritizing the site of concern to protect water quality

Monitoring Activities

- Investigatory Collection: Ecology staff will take opportunistic samples when responding to complaints or referrals on a per-case basis.

Priority Watershed: Skokomish Valley and Annas Bay

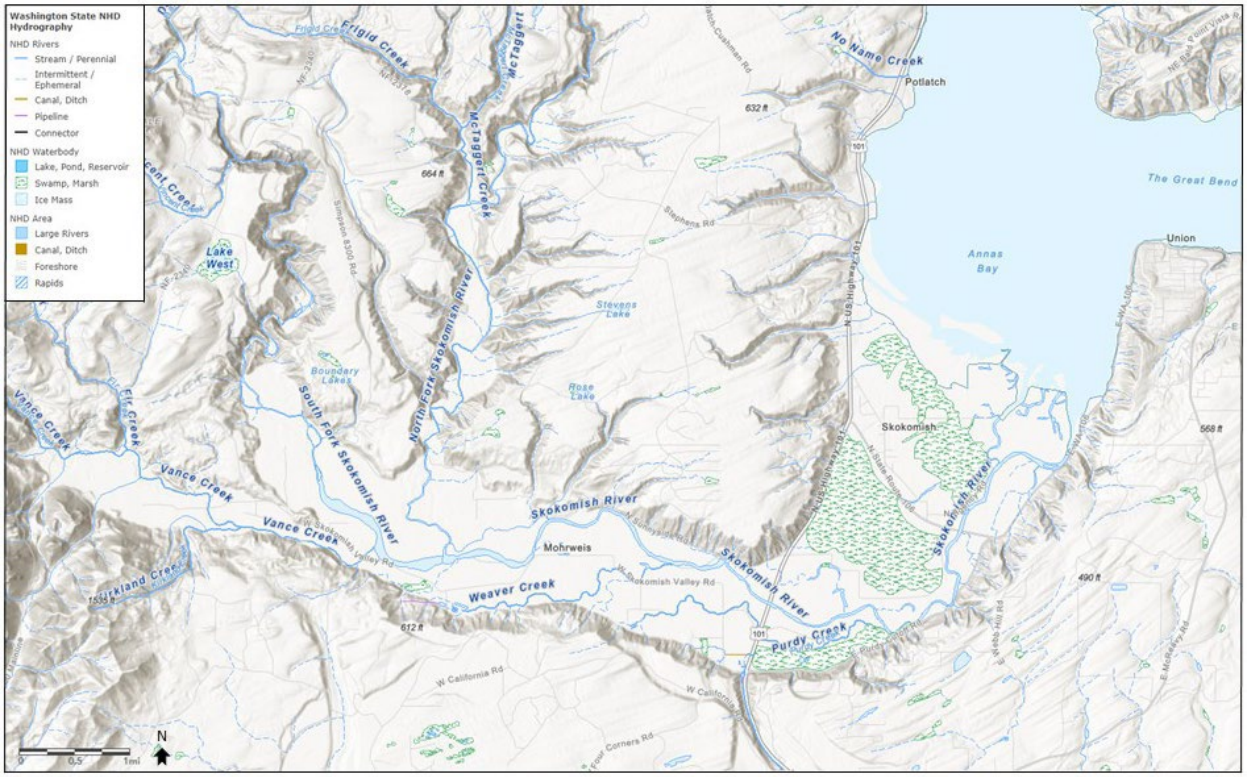

Figure 49. Map of Skokomish River Watershed and Annas Bay

Implementing: Puget Sound Partnership Action Agenda; Skokomish River Basin Fecal Coliform TMDL

Summary/Context Information:

The Skokomish River and the Delta, known as Annas Bay, boasts hundreds of acres of tidal flats used for shellfish harvest, and are home to numerous species of fish and wildlife including ESA-listed Coho and threatened stocks of Chinook. Flooding events in the Valley magnify the water quality impacts of livestock operations and Ecology is working to address the pollution inputs of this small community.

Priority Actions Projected for 2025:

Education and Outreach

- Share educational outreach resources: Ecology staff will provide landowners and local community members with resources outlining nonpoint water quality education, by distributing outreach materials such as mailers and brochures. The outreach materials will highlight the available technical and financial resources.

Financial Assistance

- Information sharing: Ecology staff will provide landowners with information regarding financial assistance through local partners for BMP implementation, and grant funding opportunities.

Partner Coordination

- Hood Canal Coordinating Council (HCCC): Ecology staff will attend meetings and seminars to stay informed on supporting healthy shellfish ecosystems within the Skokomish River Watershed.
- Conservation District: Ecology staff will participate in Mason Conservation District (MCD) board meetings to identify water quality concerns and uphold working connections.

Pollution Identification/Watershed Evaluation

- Watershed Evaluation: Ecology staff will conduct Watershed evaluations primarily during the rainy season. Evaluations will also be conducted throughout the year as shellfish pollution concerns deem further assessments necessary.
- Complaint/Referral Response: Ecology staff will continue to respond to nonpoint water quality concerns via partner referrals or through ecology's complaint system. Staff will continue to assess progress on existing sites of concern.

Compliance/Technical Assistance Activities

- Responding to responsible parties: Ecology staff will continue to utilize the Nonpoint Desk Book Manual and compliance flowchart to respond to sites identified as sites of concern through windshield assessments or reported from a third party. If local partners are not currently working with the responsible party, staff will respond by phone email, or letter after prioritizing the site of concern to protect water quality

Monitoring Activities

- Investigatory Collection: Ecology staff will take opportunistic samples when responding to complaints or referrals on a per-case basis.

Priority Watershed Name: Lacamas Creek Watershed

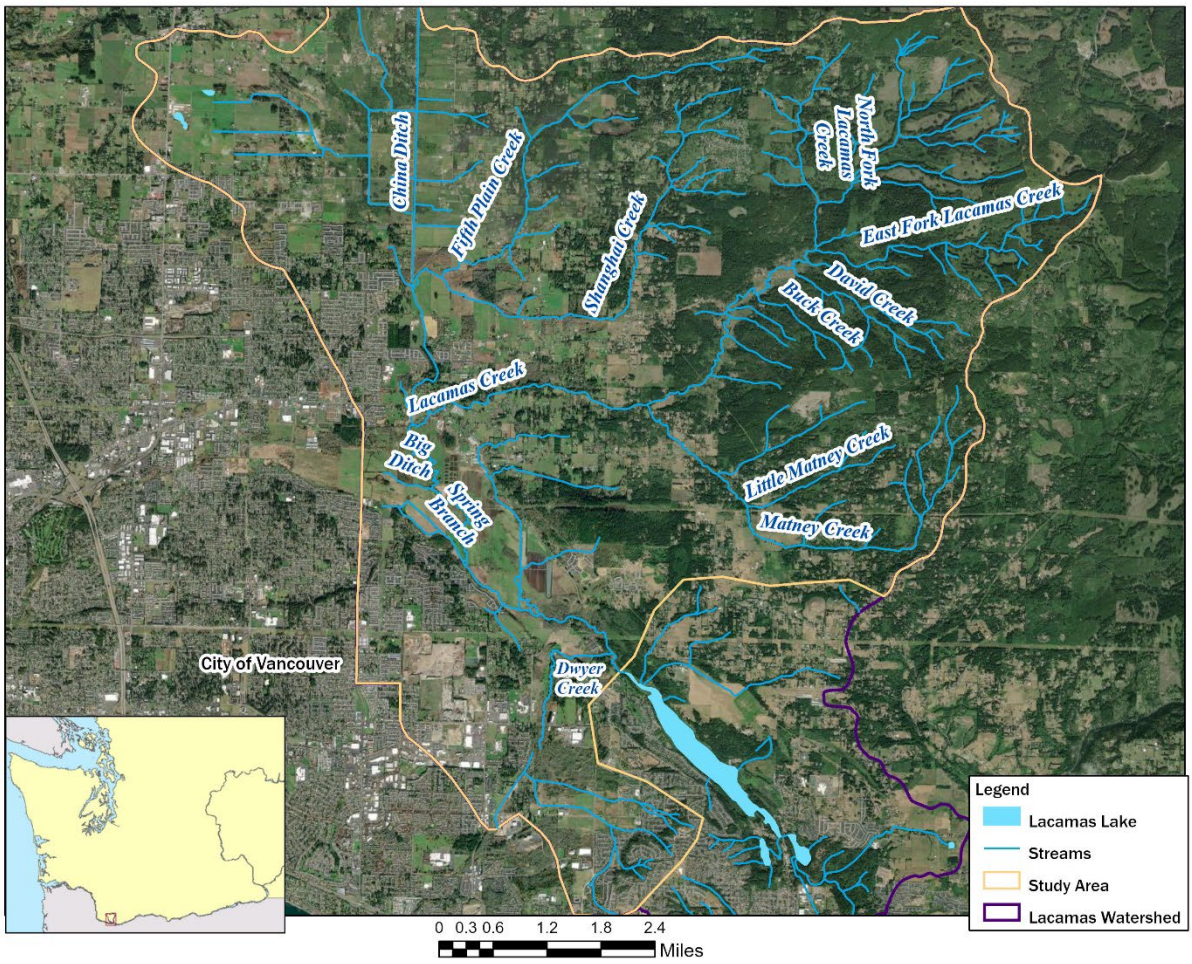

Figure 50. Map of the Lacamas Creek Watershed

Implementing: Lacamas Creek Partnership for Clean Water Action Agenda

The Washington State Department of Ecology (Ecology) is the lead for the Lacamas Creek Partnership for Clean Water. Supporting partners are Clark County, City of Camas, Washington State Department of Agriculture, Clark Conservation District, and the United State Department of Agriculture's Natural Resource Conservation Service (USDA NRCS).

Summary/ Context Info:

The Lacamas Creek Watershed is home to one of the fastest growing cities in Washington State, and on Washington State's polluted waters list for warm water temperatures, bacteria, dissolved oxygen, and pH impairments. The Lacamas Creek Partnership has been established to improve the waterbody. Lacamas Lake eutrophication was first recognized in the 1970's and the Lacamas Creek Watershed TMDL was first published January 1996. The focal waterbodies and impairments of the Watershed include China Ditch (Phosphorus, Nitrogen), Shanghai Creek (Bacteria), Fifth Plain Creek (Temperature, Nitrogen), Big Ditch (Temperature), Spring Branch

Creek (Phosphorus, Nitrogen), Lower Lacamas Creek (Nitrogen, Bacteria), Dwyer Creek (Phosphorus, Temperature).

Priority Actions Projected for 2025:

Education and Outreach

- **Public Events:** Ecology staff will continue to coordinate with the Clark County Conservation District, Clark County Public Health, and Clark Public Utilities on water quality workshops and participate in public outreach events, when appropriate.
- **Landowners:** We will continue to provide water quality related educational materials to landowners within the Watershed with an estimated 20 site visits per year by either Ecology staff or referred to the Conservation District's Working Lands Program Manager.

Financial Assistance

- **Funding:** In 2022, Ecology funded the initiation of Poop Smart Clark Pollution Identification and Correction (PIC) program until 2025 in four selected sub-Watersheds addressing livestock and onsite nonpoint pollution concerns. Ecology award = a total of $666,666.67.
- **Riparian Restoration Funding:** Ecology approved a local dairy to create riparian forests along Lacamas Creek and its tributaries, using vegetated buffers across the 400-acre site, with an estimated 60 acres of riparian areas to be protected and restored through native plantings.
- **Information sharing**: Ecology staff will continue to provide landowners with financial assistance opportunities for BMP implementation on their properties and assist local partners with grant funding opportunities.

Partner Coordination

- **Lacamas Creek Partnership:** SWRO staff will continue to collaborate and attend annual meetings with Clark County, City of Camas, Washington State Department of Agriculture, Clark Conservation District, and the United State Department of Agriculture's Natural Resource Conservation Service.
- **Conservation District:** SWRO staff will continue to attend monthly Clark Conservation District Board Meetings and coordinate with CD staff on addressing pollution concerns.
- **PIC:** SWRO staff will continue to participate in monthly PIC "Poop Smart" meetings and provide updates on compliance activities.

Pollution Identification/Watershed Evaluation

- **Watershed Evaluation:** SWRO staff will continue to conduct site visits to assess potential pollution sources, provide technical assistance to residents, and refer landowners to Clark Conservation District when appropriate.

Compliance/Technical Assistance Activities

- **Complaint Response:** Staff will continue to verify and respond to nonpoint concerns submitted through Ecology's reporting system (ERTS).
- **Technical Assistance:** Staff prioritize providing technical assistance through various means, including site visits and letters, to landowners identified as having nonpoint concerns during Watershed evaluations and through ERTS.

Monitoring Activities

- **Investigatory collection:** Staff will take opportunistic samples when responding to complaints or referrals as needed on a per-case basis.

Priority Watershed Name: East Fork Lewis River Watershed

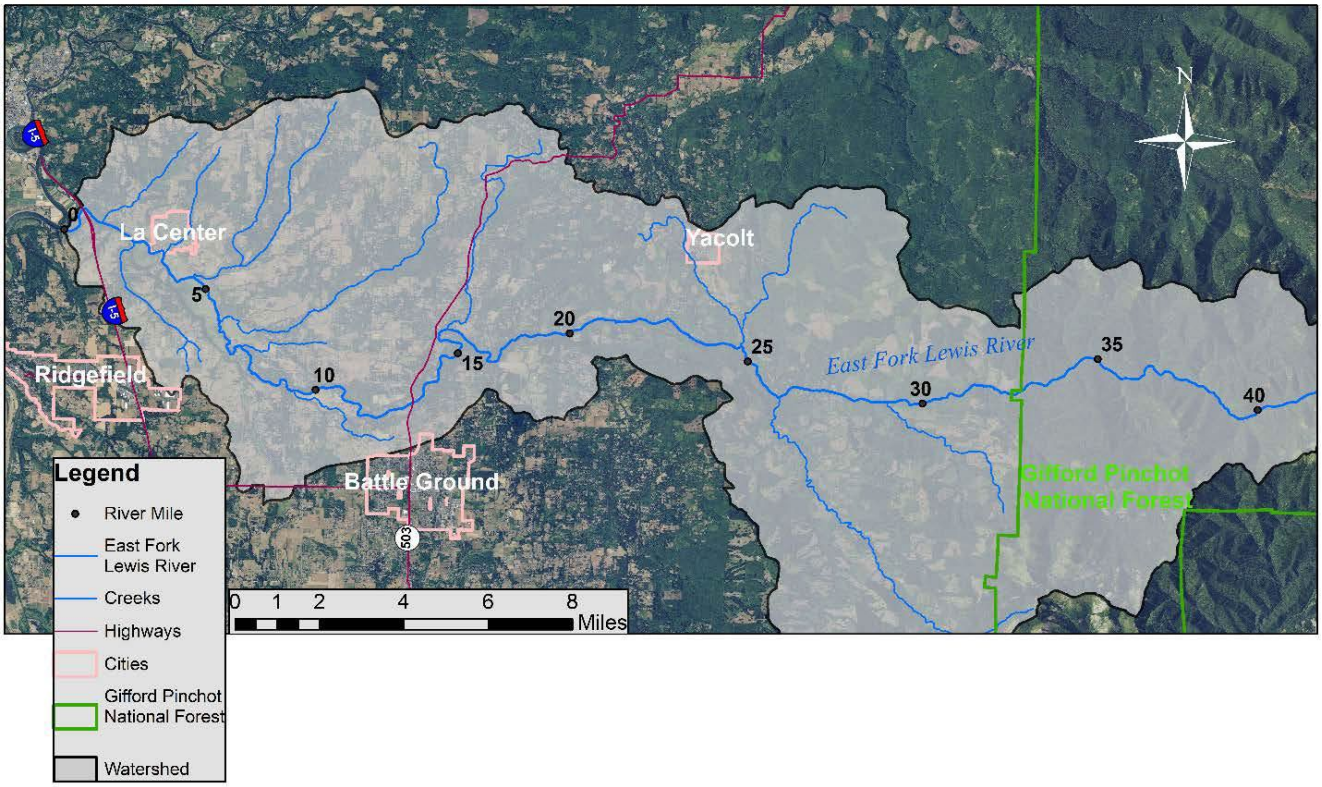

Figure 51. East Fork Lewis River Watershed

Implementing: East Fork River Alternative Restoration Plan

Summary/Context Info:

The East Fork Lewis River (EFLR) Alternative Restoration Plan was approved by EPA in 2021 to address temperature and bacteria impairments. The EFLR Watershed is home to both one of

the fastest growing cities in Washington State, and five high priority populations of Endangered Species Act (ESA) listed salmon and steelhead. The Watershed provides recreation, timber, agriculture, and water resources for this rapidly growing region of the State. At the same time, the Watershed is key to the recovery of ESA-listed salmon and steelhead that rely on the mainstem and tributaries for critical spawning and rearing habitat. The Poop Smart Clark Pollution Identification and Correction (PIC) group is working collaboratively to identify bacteria sources and to direct resources to problem areas. Stream and habitat restoration projects have been initiated by local non-profit Watershed groups including the reclamation project of nine abandoned pit mines along the East Fork Lewis River. External partners include Clark County Conservation District, Clark Public Utilities, Washington State University Extension, Clark County Public Health, Clark County Clean Water, The Watershed Alliance, and the Lower Columbia Estuary Partnership.

Priority Actions Projected for 2025:

Education and Outreach

- **Public Events:** Ecology staff will continue to coordinate with the Clark County Conservation District, Clark County Public Health, and Clark Public Utilities on water quality workshops and participate in public outreach events, when appropriate.
- **Landowners:** We will continue to provide water quality related educational materials to landowners within the Watershed with an estimated 10 site visits per year by either Ecology staff or referred to the Conservation District's Working Lands Program Manager.

Financial Assistance

- **Funding:** In 2022, Ecology funded the initiation of Poop Smart Clark Pollution Identification and Correction (PIC) program until 2025 in four selected sub-Watersheds addressing livestock and onsite nonpoint pollution concerns. Ecology award = a total of $666,666.67.
- **Information sharing**: Ecology staff will continue to provide landowners with financial assistance opportunities for BMP implementation on their properties and assist local partners with grant funding opportunities.

Partner Coordination

- **Lacamas Creek Partnership:** SWRO staff will continue to collaborate and attend annual meetings with Clark County, City of Camas, Washington State Department of Agriculture, Clark Conservation District, and the United State Department of Agriculture's Natural Resource Conservation Service.
- **Conservation District:** SWRO staff will continue to attend monthly Clark Conservation District Board Meetings and coordinate with CD staff on addressing pollution concerns.
- **PIC:** SWRO staff will continue to participate in monthly PIC "Poop Smart" meetings and provide updates on compliance activities.

Pollution Identification/Watershed Evaluation

- **Watershed Evaluation:** Staff will conduct at least one Watershed evaluation to identify and prioritize sites of concern.

Compliance/Technical Assistance Activities

- **Complaint Response:** Staff will continue to verify and respond to nonpoint concerns submitted through Ecology's reporting system (ERTS).
- **Technical Assistance:** Staff will provide Technical Assistance letters to landowners identified as having nonpoint concerns identified during Watershed evaluations and through ERTS.

Monitoring Activities

- **Investigatory collection:** Staff will take opportunistic samples when responding to complaints or referrals on a per-case basis.

NWRO Priority Watersheds

The Northwest Region's nonpoint team experienced staff turnover in 2024; the four permanent nonpoint positions remained vacant between June and November 2024. Ecology filled two of the four vacant nonpoint positions in late November 2024. In 2025, the new team will continue their onboarding and Watershed orientations, establishing foundations of the nonpoint workflow, building and maintaining new and existing relationships within the region's Watersheds, and developing Watershed-specific strategies for addressing nonpoint source pollution. As a result of the foundation building needed within the new team, and the two remaining vacancies, some of the focus Watersheds described below will not have specific education and outreach, financial assistance, technical assistance, or monitoring activities planned.

Priority Watershed: Whatcom County Shellfish Growing Areas (Various Whatcom County Watersheds)

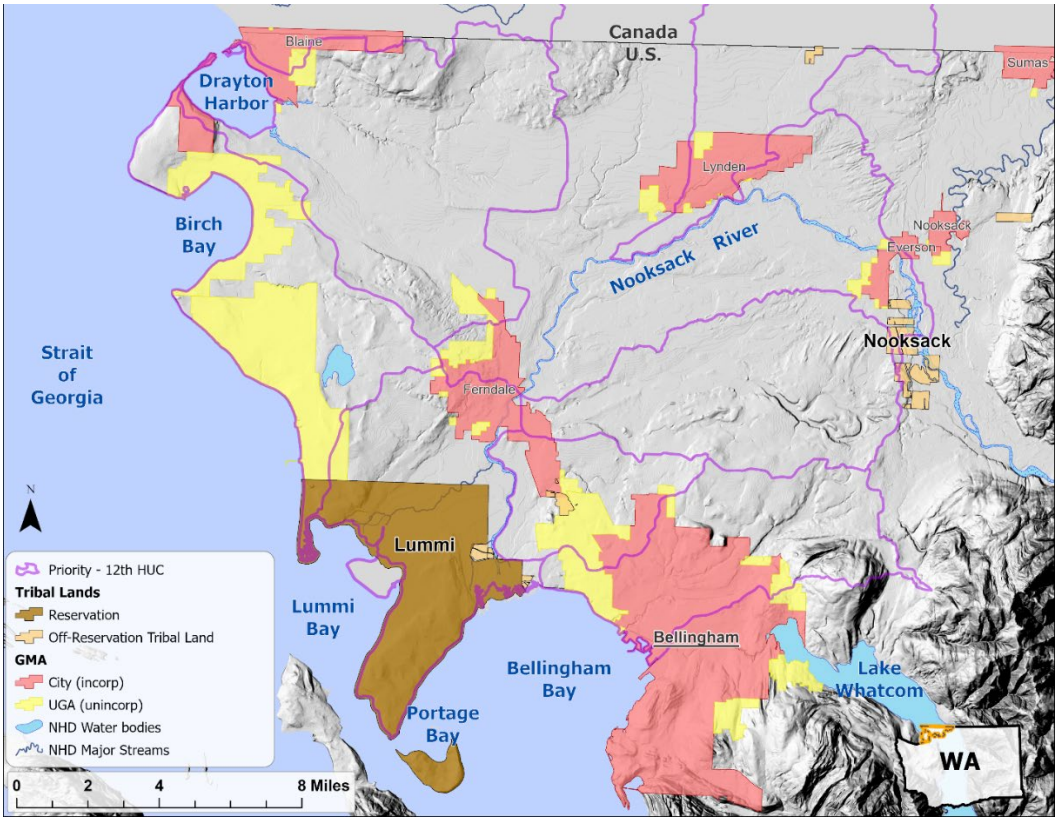

Figure 52. Overview of Whatcom County Watersheds containing Shellfish Growing Areas

Implementing: Drayton Harbor Bacteria TMDL Development, Regional Pollution Identification and Control Programs through the Whatcom Clean Water Program (WCWP)

Summary/Context Information:

In 1988, Washington Department of Health (DOH) began closing the shellfish growing areas in Drayton Harbor based on a trend of deteriorating water quality. The closures ultimately resulted in the entire harbor being closed for harvest by 1999. In 2004, DOH upgraded the status of 575 acres in the central harbor from Prohibited to Conditionally Approved. Two additional upgrades to Approved for commercial harvest occurred in 2016 and 2019 for a total of 1,575 acres. In 2016, 810 acres of shellfish beds were upgraded followed by the most recent in 2019, which comprised an additional 765 acres.

The work of project partners demonstrates the efficacy of pollution control actions; however, freshwater tributaries currently do not meet the contact recreation water quality standard (WQS) and as a result, certain marine grids also do not meet the WQS for shellfish harvesting. The annual shellfish growing area review for 2021 reclassified 695 acres from Approved to Conditionally Approved. This new Conditionally Approved area is closed annually from November 1 through January 31. An additional 450 acres were changed from unclassified to

Prohibited due to poor water quality. In 2022, 42 acres were downgraded from approved to conditionally approved. Water quality issues continue to be a concern for Drayton Harbor, and our nonpoint staff continue to respond to citizen complaints and visual cues from windshield surveys and provide technical assistance to reduce fecal coliform pollution in Drayton Harbor tributaries.

While staff capacity is directed towards completing the priority actions listed below, the nonpoint team will continue to receive, evaluate, and respond to ERTS or stand-alone complaints as is feasible throughout Whatcom County Watersheds, and stay up to date on TMDLs implementation efforts related to the Nooksack River Bacteria TMDL (2000), Whatcom Creek Bacteria TMDL (2023), and Lake Whatcom Multi-parameter TMDL (2016).

Priority Actions Projected for 2025:

Education and Outreach

- Due to new nonpoint staff hirings in late 2024, Ecology will evaluate the education and outreach resources available for staff use and identify education and outreach needs from local partners and interest parties.
- Ecology's focus will consist of training the new team in education and outreach approaches, generating or updating outreach material, and tracking the various outreach events that occur within the Watershed to attend the following year.
- Throughout the year, nonpoint staff will also conduct partner-to-partner education. Subjects of interest to program partners include implementing the Clean Water Guidance for Agriculture, the FY 2025 Funding Guidelines as relevant to agricultural BMP financial assistance, ERTS workflows, and general organizational structure.

Financial Assistance

- Ecology will provide partner-to-partner education on how to maximize flexibility between the current funding guidelines and the CWG to all partners to more easily apply for and use Ecology's funding sources for BMP installation. At least two Ecology-led presentations are planned for 2025.
- Ecology continues to receive feedback related to barriers to receiving financial assistance. Nonpoint staff plan to improve their understanding of Ecology's current funding guidelines to provide clarity and guidance to accessing funding sources.

Partner Coordination

- Continued participation in quarterly Joint Shellfish Protection District meetings that center on coordinating water quality monitoring, pollution identification and control, and technical assistance/enforcement efforts across these Watersheds.

- Continued participation in Whatcom Clean Water Program, which is a multi-entity PIC program. Ecology's participation in the program will consist of prioritizing properties to offer financial and technical assistance and familiarizing the new nonpoint team with on-going technical assistance efforts from previous staff.
- Ecology will re-establish its role among the other regulatory partners within the Whatcom CWP to ensure that the program's technical assistance workflows compliment Ecology's nonpoint compliance assurance policies.
- Ecology will participate in bi-weekly Compliance Coordination meetings with the regulatory partners within the Whatcom CWP to establish feasible milestones for achieving compliance at newly identified properties contributing pollutants and sites with long-standing water quality concerns.
- Nonpoint staff will participate in bi-weekly field-staff meetings as attendees and trainees where appropriate to inform Whatcom CWP on Ecology's nonpoint procedures.
- Ecology will continue to participate in quarterly Nooksack transboundary meetings to improve information sharing of water quality concerns and improve data collection efforts across borders.

Pollution Identification/Watershed Evaluation

- Ecology will routinely conduct Watershed evaluations to identify new properties to initiate contact with and monitor known properties during various weather conditions to assess their potential to pollute. Nonpoint staff will coordinate compliance and technical assistance actions with local partners accordingly.
- Nonpoint staff evaluate ERTS in coordination with the WCWP. Nonpoint staff will primarily leverage local authority, MS4 permit authority, or other regulatory tools as applicable to address these issues.

Compliance/Technical Assistance Activities

- Ecology, in collaboration with Whatcom CWP partners, have identified seven properties in need of technical assistance follow-ups. These are properties are where initial outreach efforts have stalled, or technical assistance letters have resulted in failed deliveries or no responses.
- Ecology will participate in discussions to prioritize sites and identify corrective actions and support local enforcement efforts as appropriate. Ecology will collaborate with partners on renewed outreach attempts to ensure CWG BMPs are included in all corrective action recommendations.
- Ecology staff in coordination with Whatcom CWP, will conduct site visits, site monitoring, and re-issue TA letters as determined by Whatcom CWP priorities.
- The new nonpoint team will continue gaining familiarity with on-going compliance efforts. Nonpoint staff will assess the compliance needs for each previously identified property to determine the appropriate path to compliance.

Monitoring Activities

- Ecology nonpoint staff will perform source identification sampling as needed in the assessment area to follow-up on existing or newly discovered concerns
- Ecology will continue to attend weekly Hotspot check-in meetings in coordination with Whatcom CWP water quality monitoring program to stay updated on current monitoring activities.

Priority Watershed: Skagit River and Samish River Watersheds

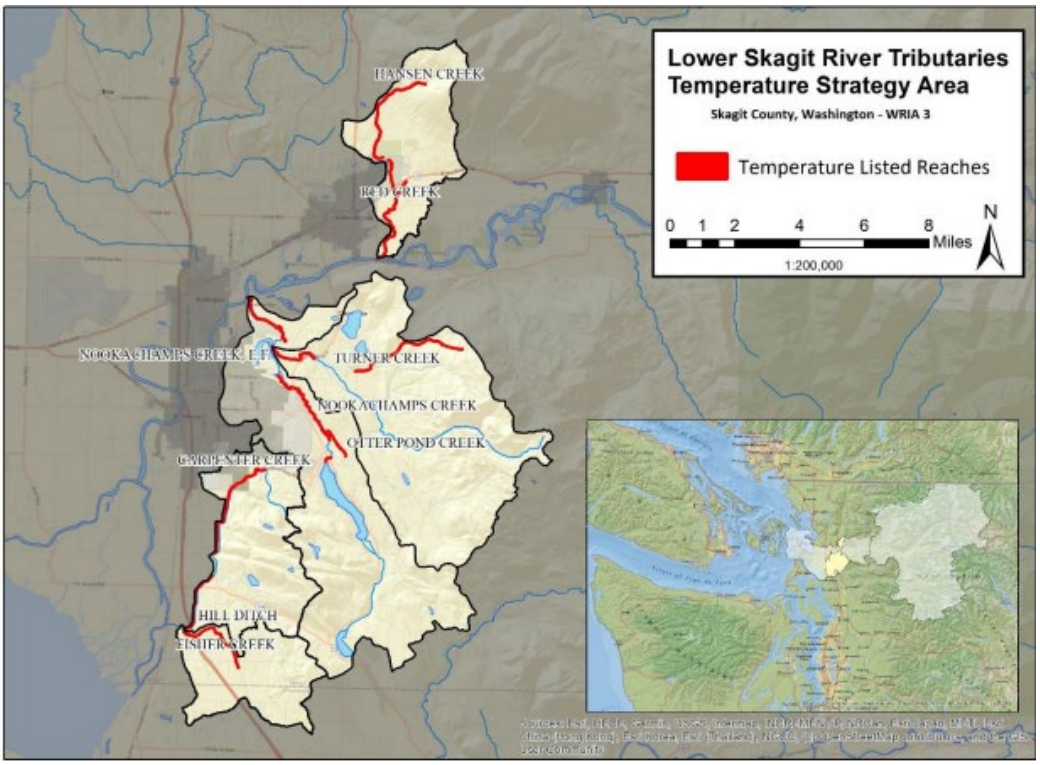

Figure 53. Map of Lower Skagit tributaries TMDL study area

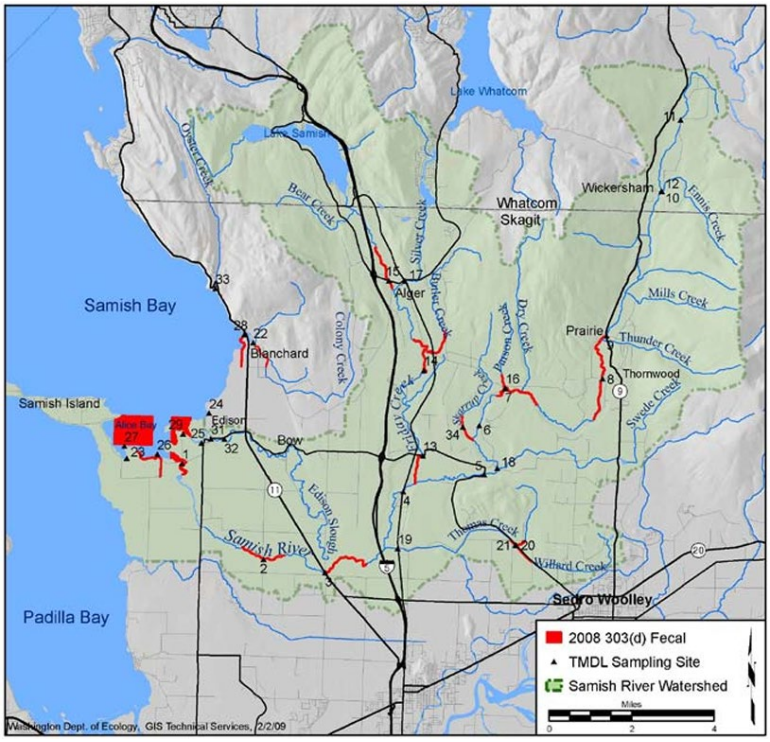

Figure 54. Samish Bay Watershed in Skagit and Whatcom counties, northwest Washington

Implementing: Lower Skagit Tributaries Temperature TMDL, Lower Skagit Fecal Coliform TMDL, and Samish Bay Watershed Bacteria TMDL

Summary/Context Information:

Ecology continues to collaborate with local restoration practitioners to support region-driven efforts to increase the pace of riparian restoration in the Lower Skagit Tributaries. The activities are a result of the Lower Skagit Tributaries Temperature TMDL Implementation Strategy developed in coordination with interested parties and implementation partners in 2019.

As the Lower Skagit Tributaries Temperature TMDL is in its implementation phase, there are continued challenges with riparian restoration and voluntary compliance. Nonpoint staff continue to respond to individual properties when risks to water quality are visible from public road right of ways. Technical assistance is provided, and Ecology staff work with local partners (example: Skagit Conservation District) to provided best management practice (BMP) information and financial assistance for installing recommended BMPs. When land use practices continue to cause impairments to water quality without meaningful property owner efforts to correct them, Ecology staff will use various enforcement tools as a backstop to gain compliance.

The Samish River TMDL implementation is primarily facilitated by the Clean Samish Initiative (CSI), a coalition of regulatory and non-regulatory organization, Tribal, and private citizen

entities focused on reducing fecal coliform pollution in the Samish Bay Watershed (Skagit County, 2025).

Priority Actions Projected for 2025:

Education and Outreach

- Due to new nonpoint staff hirings in late 2024, Ecology will evaluate resources available for staff use and identify and update or develop education and outreach materials based on local partners and interested parties' needs. Ecology will focus on updating previously developed education and outreach materials to increase local awareness of Skagit River water temperatures.
- Ecology's focus will consist of training the new team in education and outreach approaches, generating or updating outreach material, and tracking the various outreach events that occur within the Watershed to attend the following year.
- On an as-needed basis, Ecology will also conduct partner-to-partner education. Subjects of interest to program partners include implementing the Clean Water Guidance for Agriculture and the FY 2025 Funding Guidelines as they relate to agriculture BMP financial assistance.
- Ecology will distribute remaining outreach materials, such as the materials developed in support of the Lower Skagit Tributaries Temperature TMDL, to local partners for use at local/regional outreach events.
- Ecology will periodically participate in partner coordinated agricultural BMP implementation surveys to help identify areas for outreach efforts.

Financial Assistance

- Ecology will provide partner-to-partner education on how to maximize flexibility between the current funding guidelines and CWG to all partners to more easily apply for and use Ecology's funding sources for BMP installation. At least two Ecology-led presentations are planned for 2025. Ecology continues to receive feedback related to barriers to receiving financial assistance. Ecology staff plan to provide as much clarity and guidance to accessing funding sources as requested. Ecology will assess other funding sources utilized by partners in the Watershed to determine how Ecology funding may fill existing funding gaps to enable TMDL implementation.

Partner Coordination

- Continued participation in Skagit County's bi-monthly Project Delivery Team meetings which are an opportunity for field staff to discuss problems, brainstorm solutions, give progress updates, and highlight hotspots from monitoring efforts.
- Continued participation in quarterly CSI executive meetings that center on coordinating pollution identification and control, technical/financial assistance efforts across the

Watersheds, and discuss challenges at a management level with members from the Conservation District, WSDA, DOH and Ecology.
- Ecology will continue to work with Upper Skagit and Sauk-Seattle Indian Tribe, and the Swinomish Indian Tribal Community to support ongoing restoration efforts.

Pollution Identification/Watershed Evaluation

- Ecology will routinely conduct Watershed assessments to identify new properties to initiate technical assistance efforts in collaboration with CSI partners. Nonpoint staff will monitor known properties during various weather conditions to assess their potential to pollute and coordinate actions with local partners accordingly. To date, Ecology has identified three properties to monitor and resume technical assistance efforts within the Watershed.

Compliance/Technical Assistance Activities

- One Samish River property received routine technical assistance and communication from nonpoint staff in 2023 and 2024 that has both riparian and upland land use concerns stemming from cattle grazing practices. Site visits in 2024 identified the need for continued assistance with this property and a collaborative approach between Ecology and Whatcom County Planning and Development Services.
- A second property received and responded positively to a technical assistance letter Ecology sent in February 2024. The most recent communications with the property owner indicated a willingness to work with Whatcom CD staff on implementing livestock exclusion fencing from a drainage ditch through the property. Nonpoint staff will prioritize re-initiating contact with property owner and Whatcom CD to ensure successful BMP installation.
- The third property that received prior technical assistance from Ecology faces on-going concerns related to livestock access to surface waters that drain to the Samish River, as well as sediment delivery potential due to soil stockpile handling.

Monitoring Activities

- Ecology will continue to attend PDT meeting and review weekly Skagit FC/EC Ambient Hotspots emails to stay updated on current monitoring activity.

Priority Watershed: South Skagit Bay

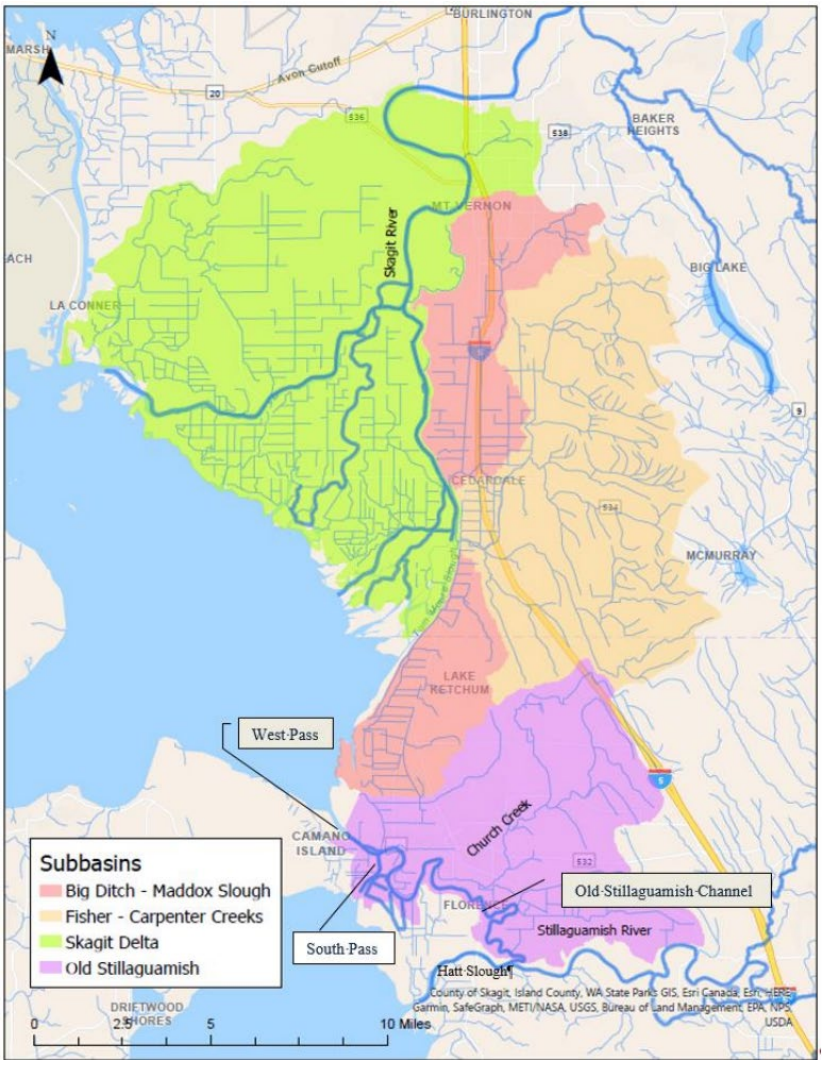

Figure 55. Overview Map of South Skagit Bay Assessment Subbasin Map

Implementing: Lower Skagit River Fecal Coliform TMDL(2000)

Summary/Context Information:

Shellfish Growing Areas in South Skagit Bay (SSB) were downgraded to “threatened” in 2017 by the Washington Department of Health (Health). To improve water quality in SSB, both Ecology and Health's Shellfish Division identified tributaries to SSB as a priority area for outreach and technical assistance to reduce loading of bacteria to the bay. Ecology developed and performed a bacteria monitoring and nonpoint source identification assessment aimed to identify potential sources of fecal coliform bacteria from SSB’s sub-Watersheds, in support of the Washington Shellfish Initiative and implementation of the Lower Skagit River Fecal Coliform TMDL.

Information provided in this section relates to addressing nonpoint pollution concerns within the lower Skagit river Watershed but also pollution inputs into the Old Stillaguamish River channel in Snohomish County. The Lower Stillaguamish Pollution Identification and Control (PIC) program addresses nonpoint pollution inputs to south Skagit Bay originating in Snohomish County. PIC participants include the following entities:

- Stillaguamish Tribe of Indians (Salmon Recovery co-lead entity)
- Snohomish County (Salmon Recovery co-lead entity, Surface Water Management, and Planning and Development Services)
- Tulalip Tribe
- Snohomish Conservation District
- Snohomish County Health Department
- City of Arlington
- City of Stanwood

Priority Actions Projected for 2025:

Education and Outreach

- Due to new nonpoint staff hirings in late 2024, Ecology will evaluate the education and outreach resources available for staff use and identify education and outreach needs from local partners and interested parties.
- Ecology's focus will consist of training the new team in education and outreach approaches, generating or updating outreach material, and tracking the various outreach events that occur within the Watershed to attend the following year.
- On an as needed basis, Ecology will also conduct partner-to-partner education. Subjects of interest to program partners include implementing the Clean Water Guidance and the FY 2025 Funding Guidelines as they relate to agriculture BMP financial assistance**.**

Financial Assistance

- Ecology will educate partners on how to apply the CWG and funding guidelines, educating on the flexibility available to tailor projects to site specific conditions to help partners to more easily apply for and use Ecology's funding sources for BMP installation. At least two Ecology-led presentations are planned for 2025.

- Ecology continues to receive feedback related to barriers to receiving financial assistance. Ecology staff plan to provide as much clarity and guidance to accessing funding sources as requested.

- Ecology Nonpoint will investigate opportunities for proactive TMDL implementation with the Sustainable Lands Strategy forum and the Floodplains by Design grant funding program.

- Floodplains by Design[32] (FbD) is a public-private grant funding partnership led by Ecology and the Bonneville Environmental Foundation. Within Washington State, this is "the primary grant program for projects that help communities live better in their floodplains." FbD projects support integrating flood hazard reduction with ecological preservation and restoration, which would in turn positively benefit water quality.
-
- The **Sustainable Lands Strategy** forum works to develop a shared vision among Stillaguamish Watershed entities and helps guide project ideas to be eligible for Floodplains by Design grant funding.

Partner Coordination

- **Skagit River Basin**:
  - Continued participation in Skagit County's bi-monthly Project Delivery Team meetings which are an opportunity for field staff to discuss problems, brainstorm solutions, give progress updates, and highlight hotspots from monitoring efforts.
  - Continued participation in quarterly CSI executive meetings that center on coordinating pollution identification and control, technical/financial assistance efforts across the Watersheds, and discuss challenges at a management level with members from the Conservation District, WSDA, DOH and Ecology.
- **Stillaguamish River Basin**: Nonpoint staff will work with existing partners to review legacy sites with nonpoint pollution issues and provide regulatory support where appropriate.
  - The nonpoint team will continue participating in workgroups and partnerships in the Stillaguamish basin, including:
    - Stillaguamish Watershed Council Technical Advisory Group (TAG)
    - Sustainable Lands Strategy (SLS)
  - **Lower Stillaguamish PIC Program:** Ecology will continue to collaborate with the Lower Stillaguamish River Pollution Identification and Correction IV (PIC IV) program to address bacterial issues in the Lower Stillaguamish. The nonpoint team's efforts will continue to focus on addressing pollution issues stemming from livestock manure, while providing coordination support as needed for other nonpoint pollution sources, such as failing on-site septic systems (OSS), and pet waste.

Pollution Identification/Watershed Evaluation

- Staff will conduct at least one Watershed evaluation in 2025.

[32] https://floodplainsbydesign.org/about/grant-opportunities/

Compliance/Technical Assistance Activities

- Ecology has coordinated with the Stillaguamish Tribe regarding several ongoing pollution issues in the lower Stillaguamish and identified sites for follow-up. Ecology will:

    - Continue to investigate the reporting and monitoring history of these sites for further context and determine if additional actions including technical assistance are needed and feasible.
    - Coordinate with local code enforcement, health departments, and other relevant parties to determine who is responsible and what actions can be taken
    - Provide timely updates to the Stillaguamish Tribe and the Stillaguamish Watershed Council about our investigation of these issues.

Monitoring Activities

- Ecology will continue to attend CSI meetings and review weekly Skagit FC/EC Ambient Hotspots emails to stay updated on current monitoring activities.
- Nonpoint staff will continue to receive updates from TMDL leads on monitoring activities and monitoring needs within the Old Stillaguamish Channel and mainstem of the Stillaguamish River.

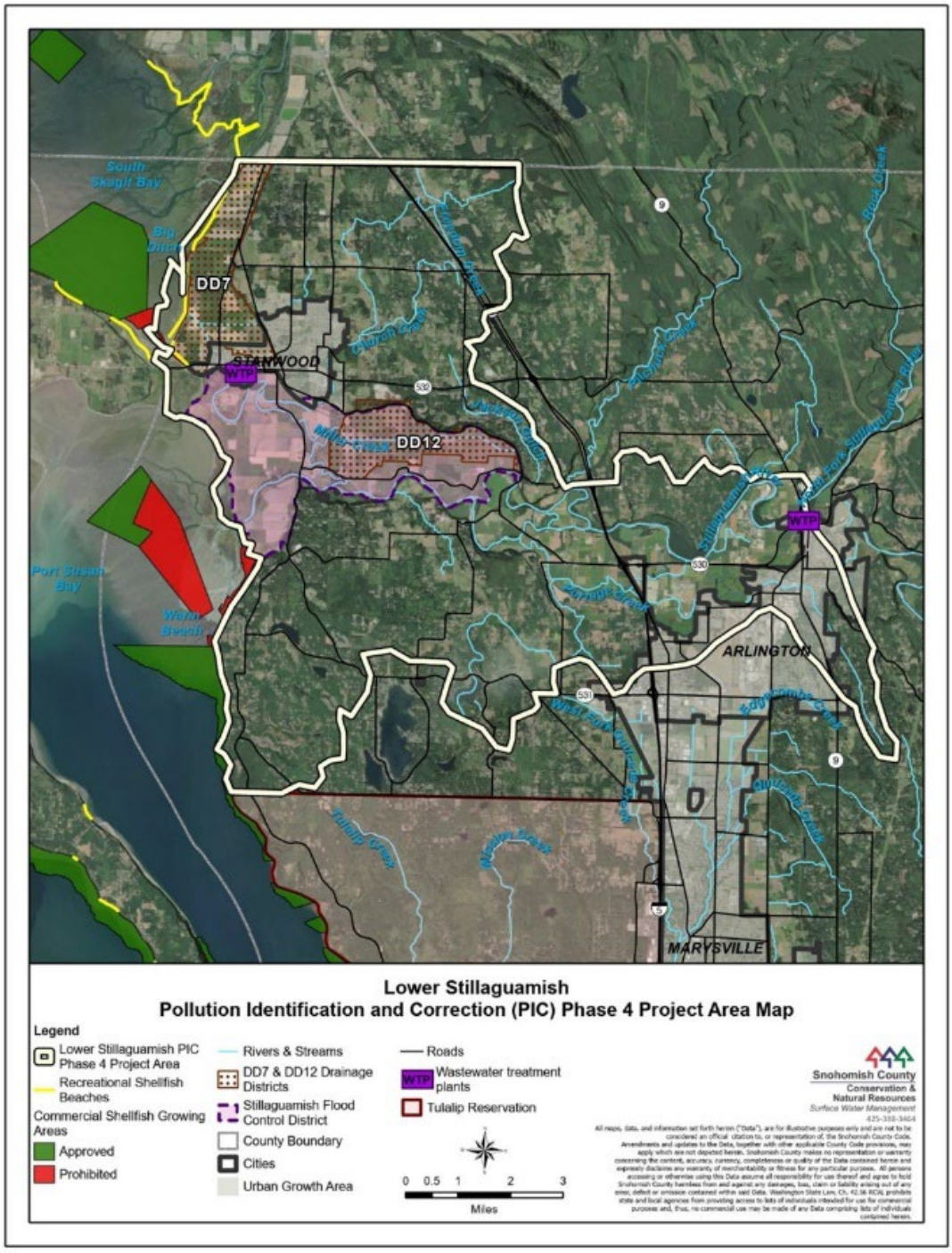

Figure 56. A map of the Lower Stillaguamish River PIC Phase 4 Project Area (Snohomish County)

Priority Watershed: Stillaguamish River Watershed

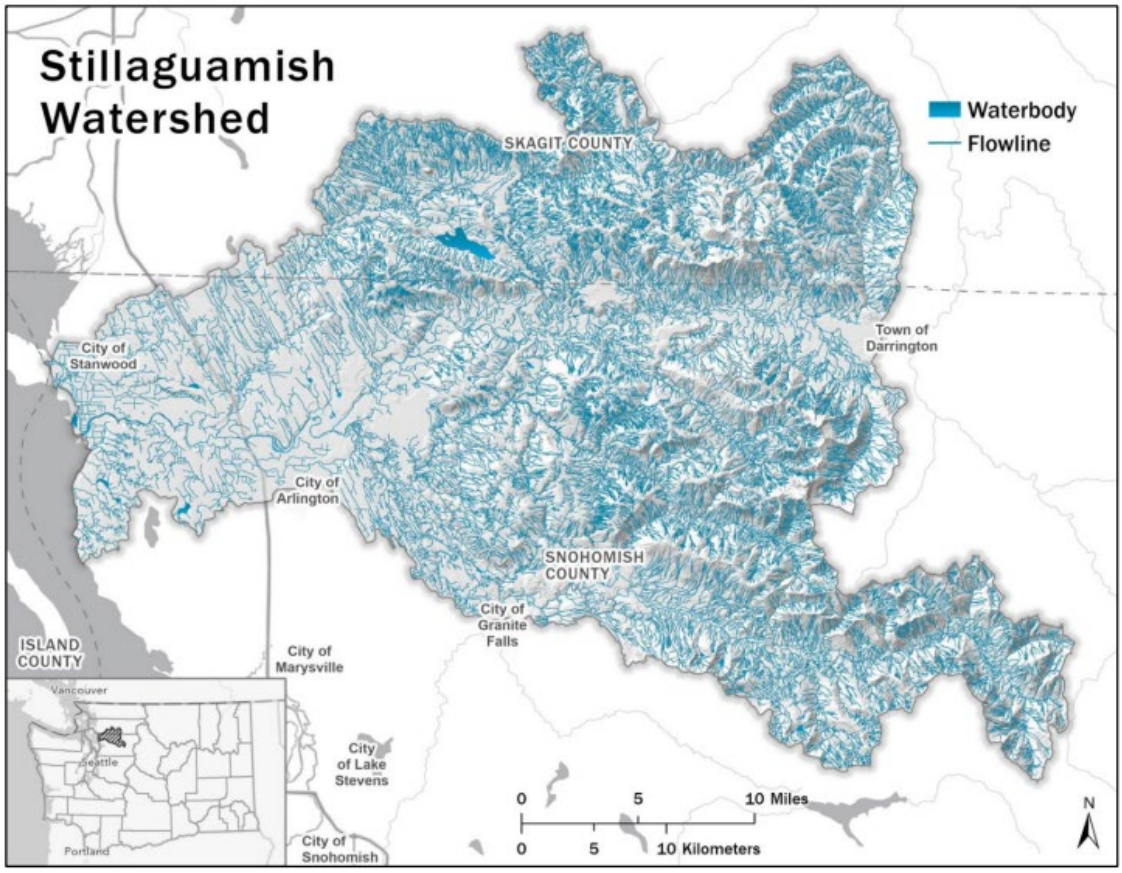

Figure 57. Overview of the Stillaguamish Watershed with waterbodies and tributaries

Implementing: Stillaguamish River Watershed Multiparameter TMDL, Stillaguamish River Watershed Temperature TMDL

Summary/Context Information:

The Stillaguamish River Basin has been the focus of Ecology-directed water quality improvement efforts for several decades. The most recent TMDL reports were published in 2005 (multi-parameter) and 2006 (temperature).

The Old Stillaguamish Channel and its contributing area flow into South Skagit Bay through West Pass, west of the city of Stanwood. This area is included in both the Stillaguamish River TMDLs and the South Skagit Bay Assessment area. More details on this portion of the lower Stillaguamish Watershed can be found in the South Skagit Bay Priority Watershed Section of this report.

Pollution from the Lower Stillaguamish River Basin affects 4,950 acres of commercial shellfish areas, as well as recreational water uses in South Skagit Bay, Port Susan, and the Stillaguamish

River (Snohomish County[33]). This specific area has been identified as having significant bacterial pollution problems.

Recent efforts and plans in the Stillaguamish Watershed are primarily focused in the lower reaches of the river in the low-lying river valley west of the city of Arlington. Several portions of the historic river delta at Port Susan and Leque Island have been reconnected to tidal influence and delta restoration work is ongoing.

The priority actions listed here relate to nonpoint pollution control efforts focused on the mainstem Stillaguamish River to avoid confusion between the actions described in the South Skagit Bay section of this report.

Priority Actions Projected for 2025:

Education and Outreach

- Staff will continue to update and distribute existing outreach materials and provide opportunistic education to landowners and the public throughout the Watershed.

Financial Assistance

- Ecology will educate partners on how to apply the CWG and funding guidelines, educating on the flexibility available to tailor projects to site specific conditions to help partners to more easily apply for and use Ecology's funding sources for BMP installation.

Partner Coordination

- Nonpoint staff will work with existing partners to review legacy sites with nonpoint pollution issues and provide regulatory support where appropriate.
-
- Ecology's Nonpoint team will continue participating in the following working groups and partnerships in the Stillaguamish basin:
    - Stillaguamish Watershed Council Technical Advisory Group (TAG)
    - Sustainable Lands Strategy (SLS)
- Nonpoint staff aim to improve their understanding of technical assistance/compliance, and financial assistance needs for each workgroup. Where needs do not align with Ecology's scope, attendance may serve as means to stay updated on on-going conservation efforts within the Watershed.

Pollution Identification/Watershed Evaluation

[33] https://snohomishcountywa.gov/3344/Lower-Stilly-PIC-Program

- Nonpoint staff received technical assistance referrals from the Stillaguamish Tribe. The referrals related to four properties with long-standing nonpoint pollution concerns along the mainstem Stillaguamish River. Nonpoint staff will conduct right-of-way inspections to observe site conditions to assist with re-initiating multi-agency efforts to address these concerns.
    - Ecology previously evaluated one riverside property along the mainstem Stillaguamish River in 2023. Nonpoint staff flagged the property for continued observations and did not initiate contact with the property owner due a lack of livestock presence at the time of the evaluation.
- At least one mainstem Stillaguamish River Watershed evaluation will occur during the report period to proactively identify properties with nonpoint pollution concerns and initiate contact.

Compliance/Technical Assistance Activities

- Based on the property referrals received from the Stillaguamish Tribe in February 2025, Ecology anticipates issuing technical assistance efforts for at least two properties within the Watershed, all of which have had no prior contact with nonpoint staff. Nonpoint staff will conduct the following to support technical assistance and partner coordination:
  Investigate the reporting and monitoring history of these sites for further context and develop a compliance strategy for each site to guide technical and financial assistance efforts.
    - Coordinate with local code enforcement, health departments, and other interested parties to determine scopes of jurisdiction and feasible action steps for each entity to complete.
    - Provide timely updates to the Stillaguamish Tribe and the Stillaguamish Watershed Council about our investigation of these issues

Priority Watershed: Green-Duwamish River Watershed

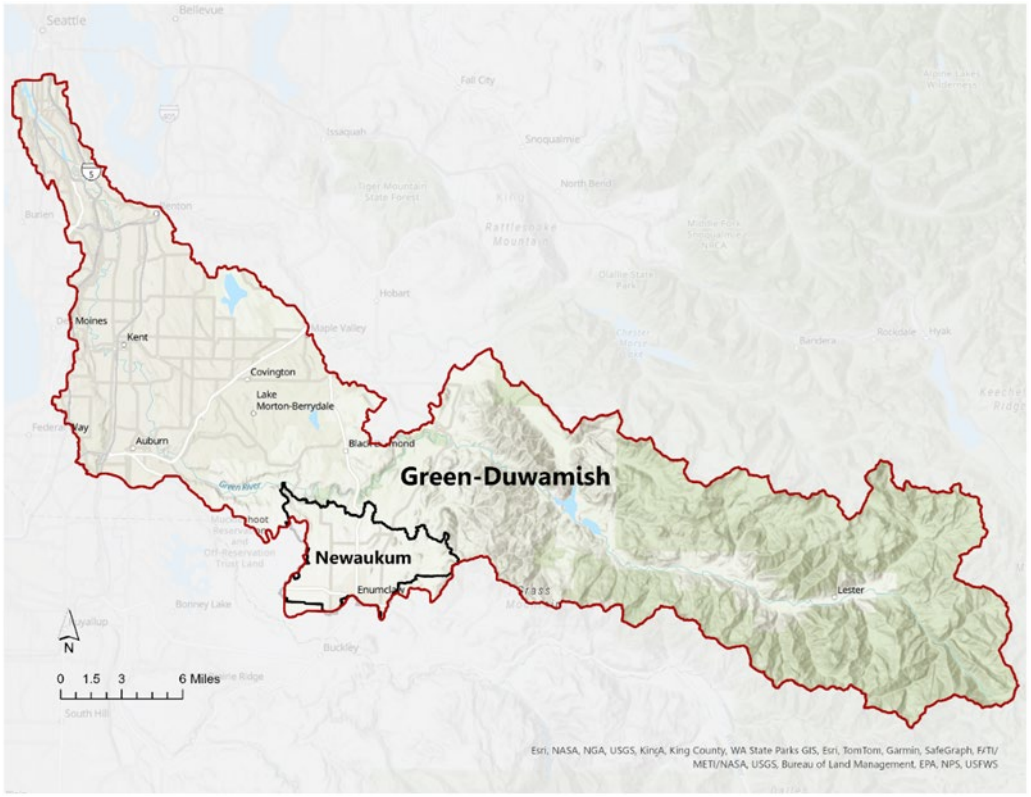

Figure 58. Green River Watershed and tributary Newaukum Creek, where nonpoint implementation to improve temperature is a priority

Implementing: Green River Temperature TMDL, Newaukum Creek Temperature TMDL

Summary/Context Information:

Ecology is actively implementing two TMDLs in the Green River Watershed: the Green River Temperature TMDL (2011) and the Newaukum Creek Temperature TMDL (2011). TMDL studies found that lack of adequate riparian vegetation contributes to temperature impairments in these water bodies. Implementation in this Watershed has focused on supporting implementation partners with riparian restoration by removing invasive species and planting native vegetation.

Priority Actions Projected for 2025:

Education and Outreach

- Due to new nonpoint staff hirings in late 2024, Ecology will evaluate the education and outreach resources available for staff use and identify education and outreach needs from local partners and interest parties.

- Ecology's focus will consist of training the new team in education and outreach approaches, generating or updating outreach material, and tracking the various outreach events that occur within the Watershed to attend the following year.
- Over time, Ecology will also conduct partner-to-partner education. Subjects of interest to program partners include implementing the Clean Water Guidance, the FY 2025 Funding Guidelines as relevant to agricultural BMP financial assistance, ERTS workflows, and general organizational structure.

Financial Assistance

- In addition to Ecology funding, every year the King County Flood Control District funds riparian restoration projects that have been prioritized in King County's implementation plan for the Green River TMDL, Regreen the Green. Currently the Flood Control District and WRIA 9 Salmon Recovery Group allocate approximately $650,000 annually towards riparian restoration projects along the Green-Duwamish River and its tributaries. This is an increase from a $500,000 allocation in previous years.
    - Nonpoint staff plan to participate in the grant review process for this funding in 2025.

Partner Coordination

- The Green-Duwamish Revegetation Partner group, which is made up of nonprofits and local jurisdictions, has been reconvened in 2025. The group implements the Green River Temperature TMDL and meets to discuss effective methods of education and outreach, best management practices to plant and maintain riparian buffers, etc. Ecology staff has been a member of this group and plans on attending these coordination meetings.

Pollution Identification/Watershed Evaluation

- Ecology has worked with the U.S. EPA since 2014 to develop and implement the Green-Duwamish Watershed pollutant loading assessment (PLA). Ecology participated in Technical Advisory Committee meetings as part of this process from 2014-2021. The nonpoint team will research this PLA further and explore possible involvement with any ongoing assessment efforts.
- Nonpoint staff will conduct at least one Watershed evaluation to monitor known nonpoint pollution sources and identify new nonpoint pollution sources.

Compliance/Technical Assistance Activities

- Nonpoint staff will evaluate and prioritize responses to ERTS complaints about potential water quality concerns. Follow-up responses can include coordination with the conservation district, local code enforcement, our SEA program and WR program, the property owner, and the funding agency.

- Based on the existing case load from the former nonpoint team, staff plan to issue at least one TA letter in 2025.

Monitoring Activities

- Continuous and grab-sample monitoring of water temperature occurs at several locations along the Green River. These efforts are led by Ecology and agency partners such as King County.

CRO Priority Watersheds

Priority Watershed: Lower Yakima River (WRIA 37)

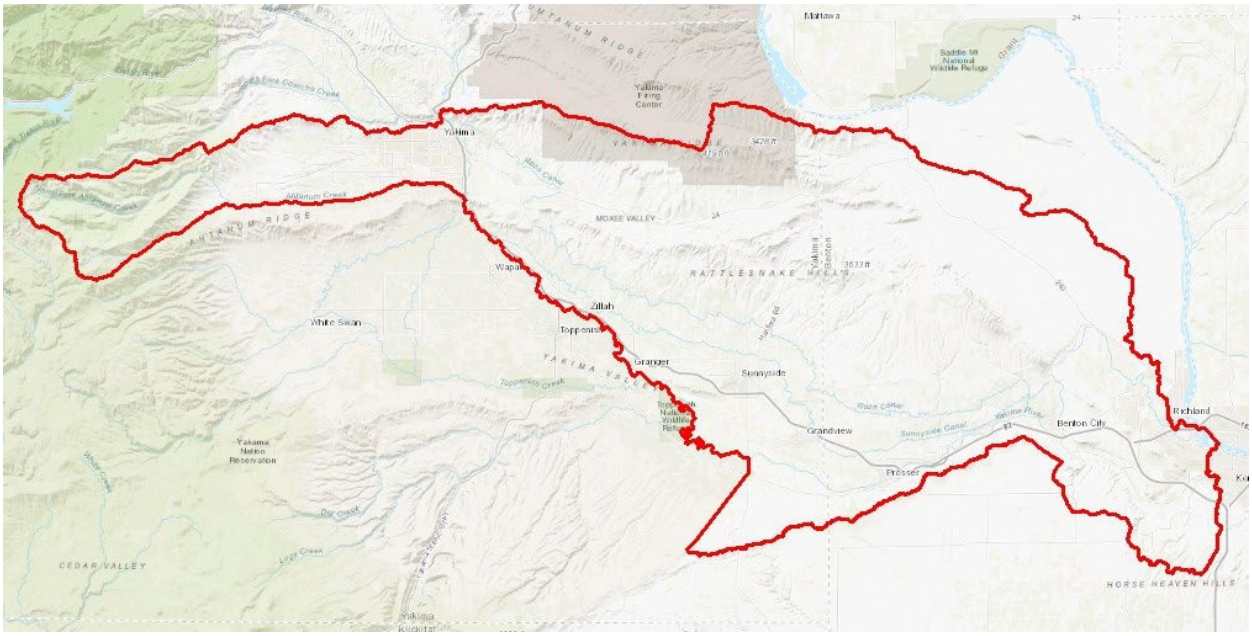

Figure 59. Map of the Lower Yakima River Watershed

Implementing: **Lower Yakima Suspended Sediment TMDL**

Summary/Context Information:

The ongoing implementation of the Lower Yakima Suspended Sediment TMDL has greatly improved the water quality discharged to the Lower Yakima River. Meeting and maintaining the water quality goals of the TMDL remain as the project goals. The existing strong partnerships with Roza and Sunnyside Valley Irrigation Districts is instrumental in the current and future successes seen in this Watershed. Ecology WQ staff continue to coordinate closely with staff of the irrigation districts to identify opportunities for additional water quality improvement.

Priority Actions Projected for 2025:

Education and Outreach

- Ecology's partners in the lower Yakima Watershed include Roza/Sunnyside Board of Joint Control (RSBOJC), South Yakima Conservation District, and the Benton Conservation District. These partners continue to conduct outreach with landowners on the need to reduce suspended sediment discharges. Additional non-point outreach is being conducted by Ecology WQ to support the Lower Yakima Groundwater Management Area (GWMA) and reduce nitrates impacts to waters of the state.

Financial Assistance

- Financial assistance opportunities are coordinated through the Watershed partners including the conservation districts and grant eligible NGOs.

Partner Coordination

- Communication with the Roza/Sunnyside Board of Joint Control (RSBOJC), representing the irrigation districts, will continue on an as needed basis. Scheduling depended on field schedules and pollution reports.
- Communications with the North Yakima, South Yakima, and Benton County conservation districts were conducted as needed to address potential pollution sources.
- Coordination with the Washington Department of Agriculture, the Washington Department of Health and the local health district will be centered around the work supporting the Lower Yakima GWMA.

Pollution Identification/Watershed Evaluation:

- Ecology staff will coordinate with RSBOJC staff within the Watershed to identify and reduce pollution sources.
- Recently added Ecology staff are conducting water quality assessment work in the Lower Yakima Watershed to identify activities that may have water quality impacts on Waters of the State.

Compliance/Technical Assistance Activities

- RSBOJC will continue to work with Ecology to identify and eliminate illicit discharges to irrigation drains in the districts.
- Ecology staff are working with the Washington Department of Agriculture and the conservation districts to follow up on issues relating to the inappropriate application of dairy waste or other sources of nutrients to agricultural lands to protect water quality.

Monitoring Activities

- RSBOJC will continue to collect water quality samples and work with Ecology to compare sampling data to the goals of the Suspended Sediment TMDL and current WQ standards.

Priority Watershed: White Salmon River (WRIA 29)

Figure 60. Map of the White Salmon River Watershed

Developing and Implementing: **Advance Restoration Plan (bacteria impairments)**

Summary/Context Information:

Ecology is working on a water cleanup project for the White Salmon Watershed to address identified water quality impairments for bacteria. Locals in the Watershed greeted Ecology's entrance into the Watershed with interest and support.

Ecology's Environmental Assessment Program completed two years of sampling in October 2024. The data is being processed, and a data summary report is expected mid-year in 2025. The project consisted of bacteria samples collected twice a month from sites throughout the

White Salmon Watershed. With the completion of the data summary report this project will move to complete the Advance Restoration Plan and move to implementation.

Priority Actions Projected for 2025:

Education and Outreach

- In 2025 Ecology staff will seek to continue working with the US Forest Service (USFS) on outreach to the recreational boaters.
- Ecology staff will continue working with Underwood Conservation District, Mid-Columbia Fisheries, and the Yakama Nation on an educational project for the local school district addressing stream health for stream on school property.
- Ecology staff will continue to work with local health jurisdictions to conduct outreach and education relating to the environmental impacts of failing septic systems, how this affects the White Salmon Watershed, and outline financial assistance resources available for septic system installation, repair, or replacement.

Financial Assistance

- Underwood Conservation District has received grant funding from Ecology's Water Quality Program to implement water quality improvement projects in the White Salmon Watershed. This included bacteria sampling projects, riparian restoration plantings, livestock exclusion, Best Management Practices technical assistance and planning, water quality monitoring, and education around riparian stewardship.
- Columbia Land Trust has applied for Ecology funding to assist with a land acquisition and riparian protection project in a relatively pristine, forested portion of Rattlesnake Creek. This tributary of the White Salmon has 303(d) listings for bacteria as well as temperature.

Partner Coordination

- Ecology Water Quality staff will continue to coordinate with the U.S. Forest Service, Washington Department of Agriculture, Underwood Conservation District, Columbia Land Trust, Yakama Nation, Klickitat County Health District, Friends of the White Salmon, Mid-Columbia Fisheries, USGS, and Trout Lake city council.

Pollution Identification/Watershed Evaluation:

- Ecology is coordinating with the local CD on bacteria sampling and filling in data gaps, while preparing the White Salmon Bacteria cleanup plan.
- Water Quality nonpoint staff will complete Watershed evaluations and complaint responses in the White Salmon Watershed in 2025.
- Ecology conducts complaint responses as needed and will have monthly field visits to the White Salmon Watershed for pollution identification work.

Compliance/Technical Assistance Activities

- Community reports of water quality concerns will be entered into the ERTS database and followed up on by CRO nonpoint staff.
- Future cases needing compliance actions will begin with technical assistance coordinated with Watershed partners and if necessary, will follow Ecology's policies on escalating enforcement.

Monitoring Activities

- Ecology's Environmental Assessment Program (EAP) completed field sampling in October 2024 for a bacteria study in the White Salmon Watershed spanning 2022-2024. This study will reference the current WQ bacteria standard for *E. coli*.
- Underwood Conservation District will continue conducting monitoring for bacteria and other WQ parameters in the White Salmon Watershed.

Priority Watershed: Bonaparte Creek

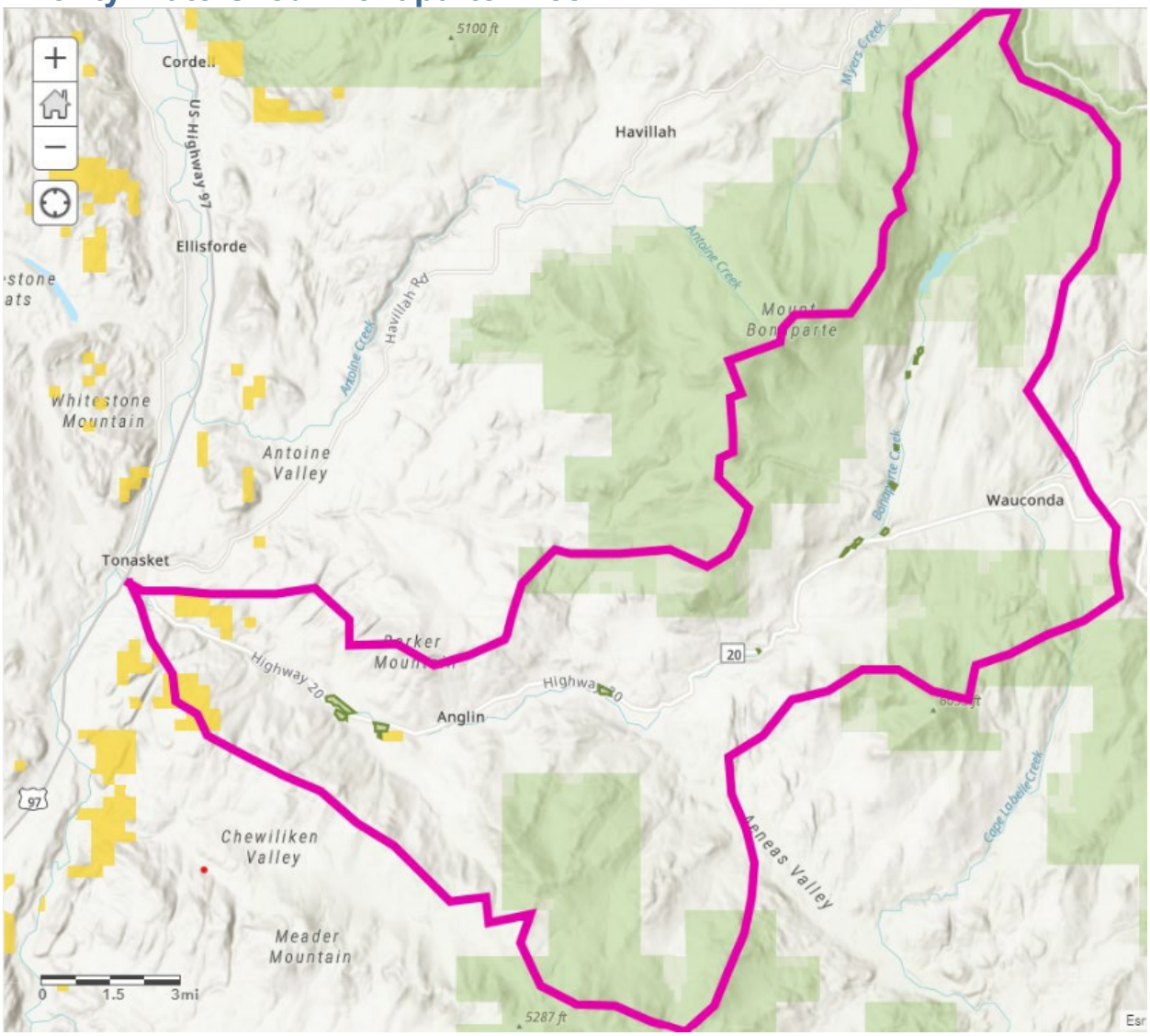

Figure 61. Map of Bonaparte Creek

Implementing: **Bonaparte Creek STI**

Summary/Context Information:

We will be completing the Straight to Implementation (STI) plan for Bonaparte Creek, a tributary of the Okanogan River in north central Washington.

The Bonaparte sub-basin drains an area of about 150 square miles, or 100,000 acres and is rural with the exception of the town of Tonasket, which sits at the creek's mouth. Land uses in the Watershed include recreation, vacation homes, small farms/ranches, timber harvest, and a few larger cattle operations.

The Bonaparte STI addresses coliform bacteria, though the creek also has 303(d) listings for temperature and pH.

There are several other tributaries to the Okanogan, as well as a handful of lakes on the 303(d) list. As such, initial education outreach is intended to be broadly targeted with a universal message about protecting shared water bodies. Many area residents are suspicious of government. We are working hard to build positive relationships and avoid animosity.

Priority Actions Projected for 2025:

Education and Outreach

- Press release – work with the region's outreach and communications staff to write a general piece on water quality and Watershed health in the Okanogan and submit to paper.
- Open house and general Watershed education event at the Community Hall in Tonasket. Using the EnviroScape and aquifer model, as well as posters and handouts we will create a general understanding of Watershed concerns and what people can do to protect Bonaparte Creek and other waterbodies. Provide an opportunity to listen to residents' concerns.
- Outreach tabling at farmers markets and other local events as available, repeating above information in a more limited form. Working to partner with other WA natural resources agencies for county fair booth.
- Visit local clubs such as Rotary, Lions, etc., to give a 20-minute presentation with Q&A.
- Partner with conservation districts and other groups for outreach to middle and high school programs. Ecology will offer classroom support alone or in partnership with the Conservation District, Methow Salmon Recovery/Beaver Project, or Okanogan Highlands Alliance to connect students to Bonaparte Creek and the Okanogan River.

Financial Assistance

- Encourage the Okanogan Health Department to apply for support to conduct a septic maintenance outreach program.
- Encourage city of Tonasket or health department to apply for pass-through funding for septic upgrades.

Partner Coordination

- Ecology staff will attend Conservation District meetings in person or online as time and opportunity allows.
- Follow Conservation District activities through newsletters and meeting minutes if not in person.
- Meet casually with CD staff to strengthen relationship and better understand 'lay of the land'.

- Communicate in person and via email with other WA state natural resources staff (DNR, Fish & Wildlife) to gather local info.
- Follow activities of Health Department and support their education efforts as requested.

Pollution Identification/Watershed Evaluation:

- Evaluate sources of nonpoint pollution through Watershed evaluation field work.

Compliance/Technical Assistance Activities

- Mail three technical assistance letters to property owners with the greatest damage to riparian areas.
- Follow up on any ERTS reports and ensure correct Ecology program(s), or other agencies are notified. Coordinated with Watershed partners as needed to address compliance actions and offer technical help. If necessary, follow Ecology's policies on escalating enforcement. Ensure proper closeout.
- Conduct water quality investigations as appropriate.

Monitoring Activities

- Ecology staff will conduct source identification monitoring as needed.

Priority Watershed: Hangman Creek Watershed

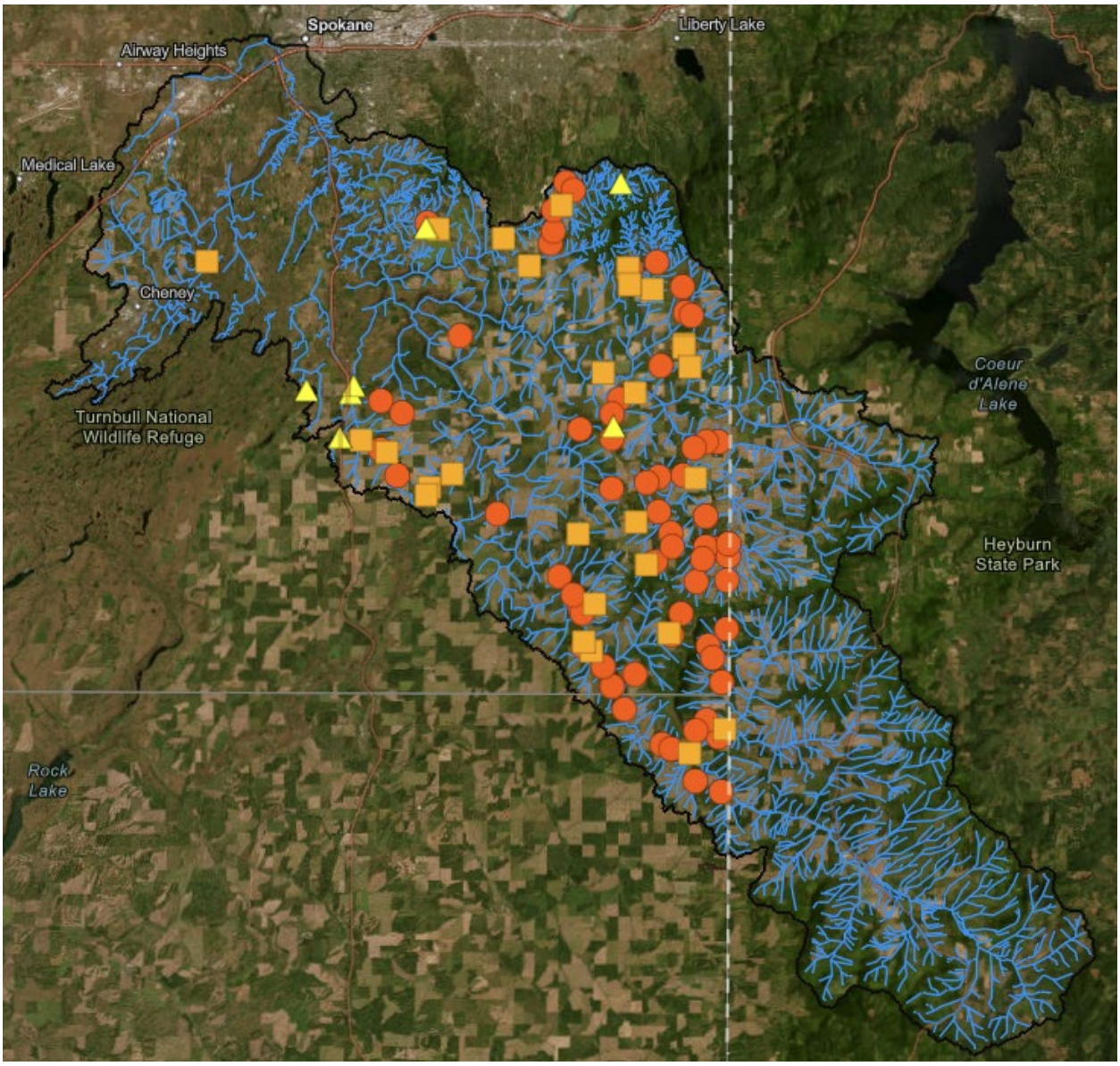

Figure 62. Hangman Watershed showing locations of prioritized sites ERO staff have contacted since 2018 and are actively working with on water quality improvement projects.

Implementing: Hangman Creek TMDL

Summary/Context Information:

Streams in the Hangman Watershed are impaired by excess bacteria, turbidity, and elevated water temperatures. The Watershed is dominated by agricultural nonpoint sources. The Watershed was studied to develop a TMDL report and ultimately a TMDL implementation plan. The implementation plan was completed in 2011. The Spokane Riverkeeper challenged the EPA approval of the TMDL. EPA, Ecology, and Riverkeeper negotiated a 10-year agreement that

identifies and priorities specific actions to reduce pollution and ultimately make progress towards water quality improvements within the Hangman Watershed. The agreement was signed in 2018 and Ecology is actively implementing.

During the initial seven years of the Hangman Settlement Agreement, 100 producers have been contacted and offered technical and financial assistance. More than 125 site visits have been performed in the Watershed, resulting in dozens of water quality improvement projects. The rate and scale of implementation work happening in the Hangman Watershed right now is unprecedented as a direct result of Ecology's focused effort.

Priority Actions Projected for 2025:

Education and Outreach

- **Events:** Continue to participate in Spokane and Hangman community events.
- **Outreach Materials:** create outreach materials specific to audience (urban, rural, residential, agricultural producer). A second mailer to Hangman landowners is scheduled to be mailed out by the end of February 2025. Additional educational mailers are planned for the future and will include Watershed topics such as stream morphology, riparian buffer functions and benefits, and nonpoint pollution sources.
- **Signs:** Interpretive signs to be installed at visible restoration sites throughout Hangman Watershed. Messages will differ depending on site and location, but may include information about the Hangman Watershed, pollution sources, agriculture BMPs, riparian buffers, and other water quality topics.
- **Youth Education:** Continue to work with schools in the Spokane and Hangman area to provide lessons, presentations, and field activities to local youth. Critical partners in youth education are Spokane and Pine Creek conservation districts, Riverkeeper, teachers, Pacific Education Institute, Trout Unlimited, and The Lands Council.
- **Public engagement:** Pursue other positive and engaging outreach opportunities such as talk series, films, trivia nights.

Financial Assistance

- **Begin Implementing the Spokane Conservation District, *Hangman Riparian Restoration and Conservation Program Phase 3, 4, & 5:* ($2,800,000):** This program provides rental rates with long-term contracts for agricultural riparian land taken out of production and planted with native trees and shrubs. Ecology partnered with Spokane Conservation District on this program. This first two phases of the program contracted 340 acres for riparian restoration along streams in the Hangman Watershed, which were previously in dryland agricultural production. This program was created to facilitate compliance for sites contacted by Ecology as having water quality concerns, which is an eligibility criterion for enrollment in the program. Phases 3-5 are three different Ecology grants which will continue to enroll an approx. 130 more critical riparian acres into the program in 2025.

- **Begin Implementing the Spokane Conservation District, *PNW Cover Crop & Agronomy Support Demonstration Project:* ($499,873):** The Spokane Conservation District will work with cooperative adjacent landowners near the confluence of Rock Creek and Hangman Creek to stabilize approximately 1,000 linear feet of unstable and actively eroding stream banks. This project will implement Phase I of restoring/stabilizing a high sediment contribution source of this confluence area. The project will address turbidity from stream bank erosion and build upon previous, planned, and future work in the reach. This project made the draft offer list for Ecology's Water Quality Combined Funding grant round – final draft offer list contingent upon WA legislative session. If funded as expected, this project would begin in 2025.

- **Begin Implementing the Spokane Conservation District, *Rock Creek Confluence Stabilization Project:* ($500,000):** This program will support at least 12 farmers in adopting sustainable practices through both financial assistance and agronomic support. The program provides $70 per acre for up to 100 acres per year for three years to incentivize the use of cover crops. Cover crops can significantly improve water quality by reducing erosion, pesticides, and fertilizers, and increasing water storage capacity. This project made the draft offer list for Ecology's Water Quality Combined Funding grant round – final draft offer list contingent upon WA legislative session. If funded as expected, this project would begin in 2025.

- **Continue Implementing the Spokane Conservation District, *Hangman Riparian Restoration and Conservation Program Phases 1 & 2* ($5,463,538 - since 2022):** This program, since its inception in 2022 has contracted 340 acres of riparian restoration along nearly 16 miles of streams in the Hangman Watershed, which were previously in or directly adjacent to dryland agricultural production. The implementation of these acres to perform site prep, plant installations, and planting maintenance is a heavy lift for the Spokane Conservation District. They have been building their riparian program and partnering with other Watershed groups to manage this important and challenging workload.

- **Continue Implementing the Spokane Conservation District, *Hangman Creek Agricultural Sediment Abatement Project* ($424,000):** This project will restore a 2,100-foot-long reach of the Hangman Creek mainstem. The project will remove historic livestock influences, reduce active erosion through bioengineered streambank stabilization practices, and restore the riparian area with restorative buffers ranging from 130–200-foot widths. This project was funded in 2023 and will be completed in 2026.

- **Continue Implementing the Spokane Conservation District, *Direct Seed Loan Program* ($5,196,914):** This loan from State Revolving Funds allowed Spokane County Conservation District to expand their Direct Seed Equipment Loan program to 13 counties in Eastern Washington. This program allows producers to purchase the

necessary direct seed equipment to practice low disturbance, direct seed conservation tillage. This loan helps to convert acres in the Hangman Creek farmed with conventional tillage techniques to direct seed. Ecology and Spokane CD have operated this program for several years, this is the most recent phase of the program funding. This project was funded in 2023 and will be completed in 2026.

- **Continue Implementing the Spokane Conservation District, *Hangman Creek Composite Toe Stabilization Project* ($500,000):** This project will implement nonpoint source best management practices recommended in the local Total Maximum Daily Load (TMDL) and Water Quality Implementation Plan to address turbidity from stream bank erosion in Hangman Creek. The project will build upon previous downstream work and will stabilize and install riparian plantings along approximately 1,050 linear feet of actively eroding stream bank on Hangman Creek near the Rock Creek confluence. This project was funded in 2024 and will be completed in 2027.

- **Continue Implementing the Spokane Conservation District, *Hangman Watershed – Rock Creek Tributary Livestock BMPs* ($69,561):** This project will improve water quality by implementing livestock best management practices and 3 acres of riparian restoration on a farm located along an unnamed tributary to Rock Creek within the Hangman Creek Watershed. The site was identified and contacted due to having significant water quality concerns by Ecology staff during annual Watershed evaluations. This project was funded in 2024 and will be completed in 2027.

- **Continue Implementing the Spokane Conservation District, *Spokane Riparian Establishment* Project ($283,500):** This project implements three projects, two of which are in the Hangman Watershed. These projects include livestock BMPs and riparian restoration across approx. 35 acres. Both sites were identified and contacted due to having significant water quality concerns by Ecology staff during annual Watershed evaluations. This project began in 2023 and will be completed in 2026.

- **Continue Implementing the Spokane Falls Trout Unlimited, *Hangman Creek Floodplain Restoration at Grouse Creek Ranch – Phase 1 Project* ($499,730):** This agreement is part of a multi-phased project that will improve water quality, restore floodplain connectivity, and restore habitat functions along 2.2 miles of Hangman Creek upstream of its confluence with Rock Creek. This initial phase will generate a reach assessment identifying priority restoration opportunities, advance priority opportunities to preliminary and final design, initiate phased construction of priority restoration actions, and provide monitoring and adaptive management. This first phase of the project was funded in 2024 and will be completed in 2027.

- **Continue Implementing the Spokane Tribe of Indians, *DIF Project Maintenance, Riparian Restoration, and Livestock BMPs* Project ($257,868):** This project includes project maintenance across five previously installed riparian restoration projects in the

Hangman Watershed. All five projects were identified during past regional Watershed evaluations by Ecology staff as having significant water quality concerns, which were addressed by a previous implementation grant. This project began in early 2023 and will be completed by the end of 2025.

- **Continue Implementing the Spokane Riverkeeper, *Rock and Hangman Creeks Riparian Restoration and Water Quality Improvement* Project ($256,892):** This project will continue to improve nonpoint pollution issues throughout the Watershed by installing 50 acres of riparian plantings, establishing three water quality monitoring locations, 10 water temperature loggers, install livestock BMPs, and provide education and outreach programs to maximize restoration efforts within the Hangman Watershed. This project began in 2022 and will be completed in 2025.

Partner Coordination

- **Meet bi-annually with the Spokane Riverkeeper:** Ecology and Riverkeeper will meet at least two times in person to discuss Settlement Agreement progress.

- **Host Quarterly Partner Meetings with The Spokane Conservation District**: Meet with the Spokane CD to fund and implement riparian protection and restoration at priority water quality problem sites.

- **Host Coordination Meeting with the Pine Creek Conservation District**: Meet with the Pine Creek Conservation District to fund and implement riparian protection and restoration at priority water quality problem sites.

- **Participate in Coordination Meeting with the Lands Council**: Meet with the Lands Council to discuss restoration projects in the Watershed.

- **Participate in Coordination Meeting with the Coeur d'Alene Tribe of Indians**: Meet with the Tribe to discuss interest in restoration projects in the upper Watershed.
- **Participate in Coordination Meeting with the Spokane County**: Meet with Spokane County to discuss stormwater BMPs in the Watershed.

Pollution Identification/Watershed Evaluation

- **Perform Comprehensive Watershed Evaluation:** Ecology staff will document at least 40 non-point pollution problems in the Watershed using the nonpoint program's Watershed evaluation process.
- **Prioritize Sites for Technical and Financial Assistance:** Ecology has prioritized and contacted 100 producers in the Watershed over the last seven years. Ecology will continue to provide technical and financial assistance to these sites until water quality

compliance has been achieved. Ecology will contact at least 5 new sites in the Hangman Creek Watershed in 2025.

Compliance/Technical Assistance Activities

- **Continue Communications on Existing Sites:** 30 of the 100 sites prioritized and contacted in the last six years are yet to have fully protective water quality plans developed. Ecology will devote its resources to bringing these existing sites into compliance in 2025.
- **Complaint Response:** Ecology staff will continue to follow up on valid water quality complaints in the Hangman Watershed. Ecology staff will conduct site visits and actively work on plans to implement practices that will protect water quality.
- **Implement Water Quality Protection Plans/Riparian Buffers:** Using a combination of technical/financial assistance as well as compliance tools, Ecology staff will work to ensure implementation of three miles of riparian buffer in the Hangman Creek Watershed.
- **Monitor the Implementation of the Administrative Order issued to SF Rock Creek Agricultural Operation:** The Pollution Control Hearing Board (PCHB) ruled in favor of Ecology of this Administrative Order. Ecology issued the Order to one dryland agricultural operation for two separate properties in fall 2022. The Order was appealed, and the PCHB upheld the Order in early 2023. The two properties cumulatively include approximately 11,500 feet of the mainstem Rock Creek and its tributaries with the Hangman Watershed, which were actively being farmed up to water's edge. Implementation of the Order components began in 2023, which includes approximately 8 acres of native grass buffers and 22 acres of riparian forest buffers. Ecology will continue to monitor the implementation of this Order.
- **Take Additional Formal Enforcement in Hangman Creek:** Ecology staff will send approximately 5 warning letters and likely issue an additional Administrative Order in 2025. 30 of the 100 sites prioritized and contacted in the last seven years yet to have fully protective water quality plans developed. Sites that are unwilling to work with Ecology on water quality protection will be prioritized for enforcement actions.

Monitoring Activities

- **Tracking Non-point BMP implementation:** Ecology staff will continue tracking a number of numeric criteria including acres of riparian area planted, linear feet of stream restored, feet or miles of exclusion fencing, acres of conservation tillage. Staff will also be tracking and reporting on the success of the Watershed evaluation efforts including number of sites contacted, number of plans developed, number of sites brought into compliance, etc.

- **Continue Spokane Salmon Restoration Collaborative Data Collection:** Spokane Salmon Restoration Collaborative, established in 2022, is the recognized Lead Entity for Salmon Recovery Efforts in the Spokane River Subbasin, which includes Hangman Watershed. The Collaborative is tasked with collecting a multitude of data for EDT modeling in order to generate a limiting factor analysis. Watershed partners compiled existing data and worked with a contract to compile a data gaps analysis in 2023 and in 2024 on the ground data collection efforts began to fill any needed gaps. Field data collection will continue through 2025.
- **Continue Implementing Spokane Riverkeeper's Monitoring Project:** Three water quality monitoring locations were established, and 10 water temperature loggers were installed as part of the Spokane Riverkeeper's Rock and Hangman Creeks Riparian Restoration and Water Quality Improvement Project. This project provides the data to the public in real time via website. The Spokane Riverkeeper plans on adding an additional Total Phosphorous and TSS monitoring study into this project in 2025.

Priority Watershed: Palouse River Watershed

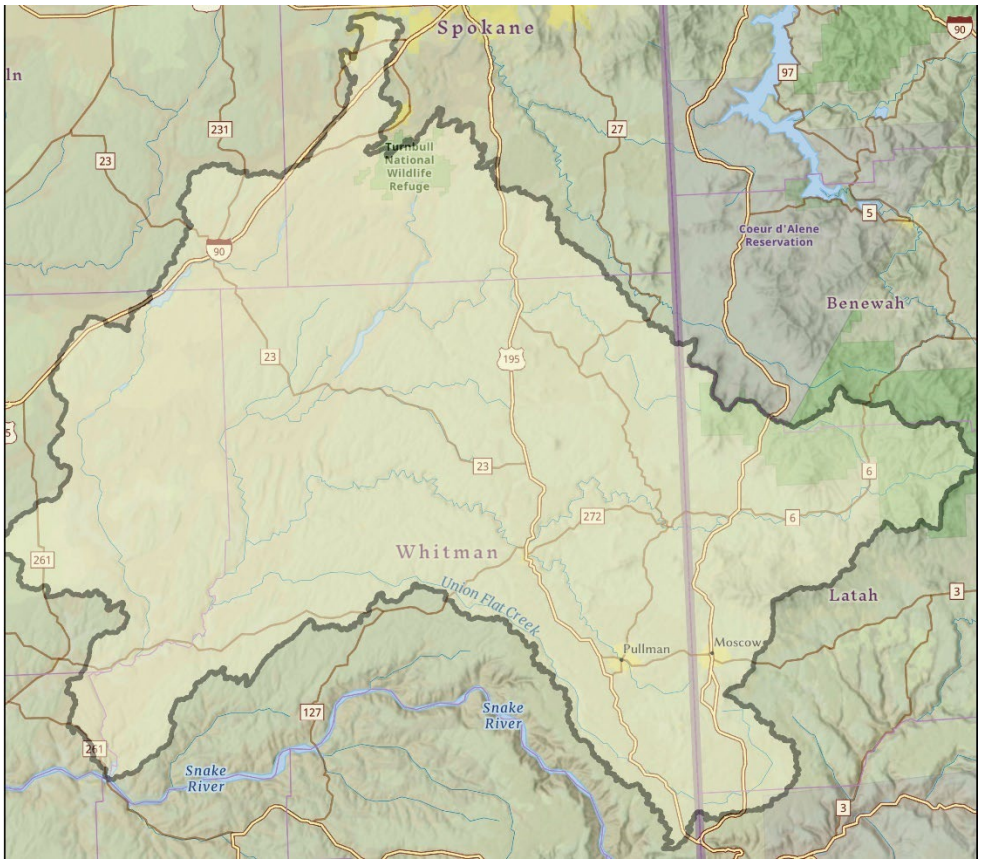

Figure 63. Map of the Palouse River Watershed

Implementing: Spring Flat Creek STI; North Fork Palouse Fecal Coliform Bacteria, DO, and pH TMDL; Palouse River Fecal Coliform Bacteria TMDL; Palouse River Temperature TMDL; Palouse River Toxics TMDL; South Fork Palouse Ammonia TMDL; South Fork Palouse DO, pH, and temperature TMDL; and South Fork Fecal Coliform TMDL.

Summary/Context Info:

The Palouse River Watershed is located primarily in Whitman County, Washington and its headwaters are in Latah County, Idaho. Land use within the Watershed is dominated by agriculture and rangeland with small rural city populations. Streams in the Palouse Watershed are impaired by excess bacteria, DO, pH, toxics, and elevated water temperatures. The Watershed and its sub basins have been studied several times and multiple TMDL reports, and subsequent implementation plans have been developed. The final Straight to Implementation (STI) Plan for the Spring Flat Creek subbasin of the Palouse was published in 2024 and significant efforts to implement that STI are taking place with partnerships between Ecology, Palouse Conservation District, and Whitman Conservation District.

Priority Actions Projected for 2025:

Education and Outreach

- **Attend Conservation District Board Meetings:** The Conservation District Boards are primarily made up of area farmers and ranchers. Although staff did not attend board meetings in 2024, due to hiring constraints, in the summer of 2024, Ecology's Eastern Regional Office hired 3 new fulltime positions: a non-point grant specialist, a Palouse Watershed Implementation Lead, and an Outreach & Education Specialist. With the hiring of these new positions, Ecology anticipates on having the capacity to attend Conservation District Board Meetings again in 2025.
- **One on One Discussions:** Ecology staff will conduct site visits with landowners and producers contacted for having water quality concerns. These site visits typically last over an hour and contain meaningful and often difficult conversations on water quality issues. Although often challenging, these outreach activities can be incredibly fruitful for water quality education and implementation efforts.
- **Town Hall Meetings:** Ecology will continue to partner with the Palouse and Whitman Conservation Districts to provide landowners an opportunity to learn about state water quality law and conservation programs available to them.
- **Conservation District Education and Outreach Actions:** As provided in the following section, Ecology funds several projects that have an education and outreach component. Several education and outreach workshops and events will continue to take place because of this funding in the Palouse in 2025.

Financial Assistance

- **Implement the Palouse Conservation District Spring Flat Creek Water Quality Enhancement Project ($345,445):** High stream temperatures, low dissolved oxygen levels, and high pH values have recently been identified as problems in Spring Flat Creek (SFC), a tributary of the South Fork Palouse River. This project will improve water quality in the SFC Watershed by providing riparian buffer installation, technical assistance and conservation planning, direct seed cost share, environmental monitoring, outreach, and education to producers. In 2024, the Conservation District completed one landowner agreement for riparian buffer implementation and submitted their draft Quality Assurance Project Plan to Ecology for review.

- **Implement the Palouse Conservation District Restoring Watershed Function in the Palouse River Watershed ($485,615):** Palouse Conservation District will help restore streamflow, water quality, Watershed function, and habitat in the Palouse River Watershed by implementing instream bioengineering projects, establishing new flow and water quality monitoring, and building awareness and support to improve stream channels and riparian habitat. Eight of the project sites are in the Palouse Watershed, and one is on a small unnamed tributary of the Snake River upstream from the Palouse River. Education and outreach efforts will build public awareness of water quality issues and encourage action to protect water resources.

- **Implement the Palouse Conservation District Do the Residue! Promoting Direct Seed Operations on the Palouse Project ($666,666):** PCD continued to implement five acres of riparian buffers and 9,000 acres of direct seeding to improve water quality in Whitman County streams. A survey of producers will assess direct seed adoption by conservation program participants. Additional crop residue monitoring and outreach and education programs, including the Alternative Cropping Symposium and Direct Seed Breakfasts, will lead to further water quality improvements in the Palouse River Watershed.
- **Implement the Palouse Conservation District Full Stream Ahead! Riparian Restoration Innovations on the Palouse River Project ($666,666):** Riparian buffers improve water quality, yet in artificially drained agricultural regions, water can bypass riparian soils and plant roots, reducing their capacity to remove nutrients. This multi-approach project is restoring 15 acres (1.5 miles), installing four beaver dam analogs (BDAs), and constructing three saturated riparian buffers (SRBs), a new conservation practice that facilitates riparian nitrogen removal, to improve water quality in the South Fork Palouse River Watershed. Each SRB will be monitored in multiple locations to assess their effectiveness and measure water table dynamics.
- **Implement the Palouse Conservation District Partnership to Restore Riparian Areas in the Lower Fourmile Creek Watershed Project ($661,541):** Riparian buffers improve water quality and ecological functions of streams. This project will restore 30 acres of riparian areas (23,000 streambank feet) in the lower Fourmile Creek Watershed, including installing up to 600 feet of streambank protection and 10 to 12 beaver dam analogs, providing technical assistance, assessing revegetation methods, installing interpretive signs, and developing place-based curriculum on riparian restoration and conservation agriculture.
- **Implement the Palouse Conservation District Operation Residue: (Under) cover Crops & Direct Seeding on the Palouse Project ($590,716):** Palouse Conservation District (PCD) will lead implementation of one stream mile of riparian forest buffer and 6,000 acres of direct seeding to improve water quality in Whitman County streams. A 250-acre cover crop demonstration project will assist producers in improving soil health on their farms. Soil health assessment of direct seed and cover crop projects will demonstrate project effectiveness, and outreach and education programs will lead to further community investment in water quality improvements.
- **Implement the Palouse Rock Lake Conservation District One Pass at a Time-Conservation of Pine Creek Watershed ($491,156):** Palouse Rock Lake Conservation District will address nonpoint pollution throughout the Pine Creek Watershed by installing 1 mile of riparian plantings; implementing 6,750 acres of conservation tillage; and providing education and outreach to members of the community.
- **Implement the Whitman Conservation District North Fork of the Palouse Restoration ($240,000):** Whitman Conservation District will restore approximately 34.1 acres of riparian area in the North Fork Palouse Watershed. In addition to riparian plantings, 30

post assisted log structures and beaver dam analogues will be installed. This project will occur along a 3,500-foot reach of North Fork Palouse River, 3,266-foot reach of Silver Creek (a tributary to North Fork Palouse River), and a 1,728-foot ephemeral channel connected to Silver Creek. An education and outreach program will provide hands-on learning experiences on riparian restoration and water quality protection.

- **Implement the Whitman Conservation District South Fork Palouse River Property Protection ($490,000):** This project will acquire approximately 125 acres in the South Fork Palouse River Watershed including 3,800 feet of the South Fork Palouse River. The land acquisition will provide Watershed protection which allows the district to implement riparian planting and provide education and outreach in the community.
- **Implement the Whitman Conservation District Palouse River Water Quality Enhancement Project ($270,000):** The Palouse River has been identified through the 303(d) list for impairments of temperature, pH, and dissolved oxygen. To address these issues, the Whitman County Conservation District has identified multiple project sites for riparian restoration in the Palouse River Watershed. Working closely with one landowner, vehicle and metal scrap was removed along approximately 650 feet of the river in the fall of 2024. Following the removal of vehicle scrap, approximately 1444 tons of gravel was used to fill and slope the bank. Conservation District staff completed riparian planting and grass seeding of the restoration area in November of 2024.
- **Implement the Whitman Conservation District Palouse River Habitat Restoration and Stabilization Project ($468,250):** The Palouse River is identified on the Washington 303(d) list for impairments of pH, dissolved oxygen, temperature, and bacteria. To address these issues, the Conservation District will identify project sites for riparian restoration, livestock BMPs, and direct seed in the Palouse River Watershed.

Partner Coordination

- **Meet with Conservation Districts:** Ecology will continue to meet in person and virtually with Palouse, Whitman, and Palouse-Rock Lake Conservation Districts to continue to develop cooperative relationships with local partners.
- **Continue to participate on the Palouse Regional Conservation Partnership Program (RCPP):** Ecology was an active participant in the first Palouse RCPP (2016-2021), and will continue to participate in the approved renewal of that RCPP (2021-2027).
- **Continue to meet with Washington State Department of Transportation (WSDOT):** Ecology staff will continue meeting with WSDOT in on buffer implementation along their highway infrastructure right of ways. Many of the streams in the Palouse have been historically ditched and straightened next to the State Hwy, including Spring Flat Creek. These efforts will continue into 2025.

Pollution Identification/Watershed Evaluation

- **Continue to Perform Comprehensive Watershed Evaluations of Spring Flat Creek**: Annual surveys will be conducted during the early spring season to identify livestock and

dryland agricultural water pollution issues. Work will focus primarily on the Spring Flat Creek subbasin of the Palouse.

Compliance/Technical Assistance Activities

- **Contact Five Priority Pollution Sites:** Ecology staff will contact five new landowners with livestock or dryland agricultural water quality issues via technical and financial assistance letters. All letters will follow up with email or phone calls (if contact number is available) throughout the year to ensure continued communication with the landowner.
- **Create Riparian Buffer Maps for Landowners:** Staff will set up site visits with contacted landowners and develop riparian buffer maps for Spring Flat Creek priority sites. The plans will include visual representations and acre estimations of riparian buffers designed to fully protect water quality.
- **Followed-up on Nonpoint WQ Complaints:** Staff will continue to respond to any water quality complaints or technical assistance requests received from the public. Phone calls and/or letters may follow after staff have confirmed a water quality issue exists.

Monitoring Activities

- **Monitor Existing Sites:** Staff will continue to monitor and document existing sites where water quality concerns persist.
- **Continue to partner with Palouse CD on Monitoring Work**: Palouse CD has taken the lead on a large monitoring effort in the Palouse Watershed. The Palouse CD began collecting water quality data at new sites in the Spring Flat Creek Watershed in 2024 and will continue into 2025. This effort is part of the Palouse Conservation District Spring Flat Creek Water Quality Enhancement Project, funded by Ecology.

Priority Watershed: Little Spokane River Watershed

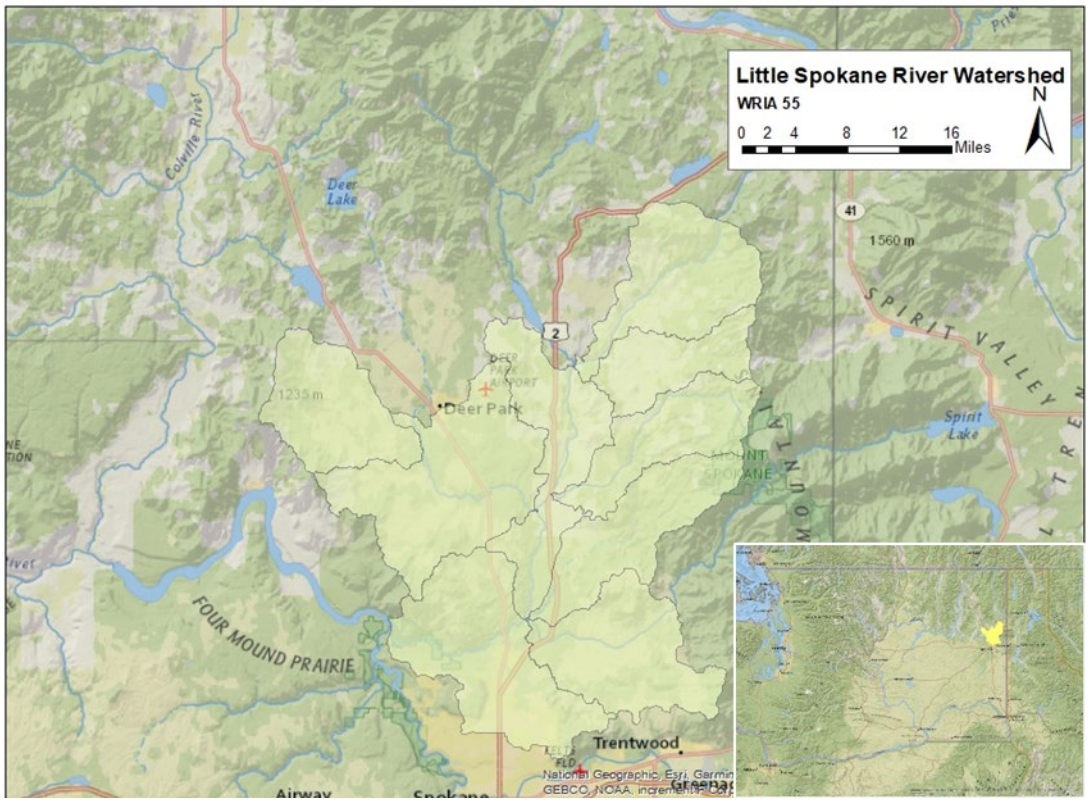

Figure 64. Map of the Little Spokane River Watershed

Implementing: **Little Spokane River TMDLs for bacteria, temperature, dissolved oxygen, total phosphorus, and pH**

Summary/Context Information:

Ecology finalized the Little Spokane River DO, TP, and pH TMDL and submitted it to EPA in December 2020. The TMDL was approved by EPA in January 2021. Ecology is now focused on implementing this TMDL and the 2012 fecal coliform, temperature, and turbidity TMDL. The water quality impairments in the Little Spokane are primarily due to non-point pollution problems. The TMDL identifies riparian health as a key to meeting water quality standards. Implementation work is focused on protecting and restoring riparian areas and upland farming practices that deliver sediment to surface water.

Priority Actions Projected for 2025:

Education and Outreach

- **Continue performing Outreach with Friends of Little Spokane:** Ecology staff will partner with the non-profit to share information with their organization members on water quality goals and stream restoration funding opportunities.

- **Continue Outreach with The Lands Council & Gonzaga University:** Ecology staff will partner with the non-profit to better understand the efficacy of BMP's to reduce Phosphorus levels.
- **Work on developing a Little Spokane Website:** Transition website information from TMDL development information to TMDL implementation tracking and reporting. Ensure website is regularly updated with information on implementation progress.

Financial Assistance

- **Continue to Implement The Inland Northwest Land Trust, Glen Tana Land Acquisition**: Ecology used $500,000 to protect 50 acres of property in the Spokane Watershed adjacent to the Glen Tana reach of the Little Spokane River. This property acquisition is part of a larger acquisition of 1,066 acres along the Little Spokane River.
- **Continue to Implement the Spokane Conservation District, *Spokane Riparian Establishment* Project ($283,500):** This project reestablishes flood plain function, sinuosity, and bank stability in Deadman Creek in the Little Spokane River Watershed. Issues with matching funds from a partner federal agency have delayed this project, but at the end of 2023 Ecology and Spokane Conservation District have successfully acquired enough project match to move forward with implementation.
- **Implement The Lands Councils Riparian Restoration in the Greater Spokane River Watershed Project ($432,750):** This project proposes to enhance and restore riparian buffers, restore and stabilize streambanks and educate the public about water quality issues and the activities to address them.
- **Implement The Lands Councils Riparian Restoration in the Little & Middle Spokane River Watersheds Project ($433,400):** This project proposes to enhance and restore riparian buffers, restore and stabilize streambanks and educate the public about water quality issues and the activities to address them.

Partner Coordination

- **Partner Engagement:** Ecology will continue building and maintaining positive relationships with existing partners, such as working with our sister agency WDFW to develop a compliance schedule for development of a new fish hatchery facility. Engaged Watershed groups and positive partnerships are vital to cultivating a synergistic environment for achieving significant water quality improvements. Additionally, Ecology is committed to engage with the Spokane and local municipalities on water quality protection measures.
- **Participate in the Voluntary Stewardship Program:** Ecology will continue to meet bi-monthly with engaged parties, such as the Spokane Tribe of Indians, local agricultural

producers, Spokane Municipalities, CD's and interest groups to find solutions to meet water quality standards.

- **Work on developing a Dragoon Creek Watershed Group:** Ecology staff will partner with local citizens of sub-Watershed to share information on water quality goals and stream restoration funding opportunities.
- **Meetings with Watershed Partners and Building Funding Capacity:** Staff will participate in meetings with conservation districts on livestock and tillage pollution problems and how to work together to improve water quality. Staff will regularly meet with other Watershed partners to plan and coordinate on implementing best management practices that improve and protect water quality. Ecology will continue to work on maintaining existing funding opportunities as well as support and encourage new funding opportunities for water quality improvement work.

Pollution Identification/Watershed Evaluation

- **Plan and Conduct 2025 Livestock Grazing and Tillage Evaluations**: Staff will identify at least 20 problem sites in the Watershed. Those sites will be prioritized based on Ecology criteria known to cause pollution. We will contact prioritized sites. Producers will be offered technical and Financial Assistance.

Compliance/Technical Assistance Activities

- **Contact at Least Five Priority Pollution Sites**: Approximately 5 new landowners with livestock or dryland agricultural water quality issues will be contacted via technical and financial assistance letters. All letters are followed up with multiple phone calls (if contact number is available) throughout the year to ensure continued communication with the landowner.
- **Follow-Up on Previous Years Priority Sites**: Landowners who have received technical assistance letters in previous years (same numbers as mentioned above), and who remain out of compliance, will be contacted through additional phone calls and follow-up technical/financial assistance letters.
- **Develop Water Quality Protection Plans for Priority Sites:** Staff will set up site visits and work to develop BMP plans for at least five sites. The plans will include riparian buffers designed to fully protect water quality.

- **Implement Water Quality Protection Plans/Riparian Buffers:** Using a combination of technical/financial assistance as well as compliance tools, Ecology staff will work to ensure implementation of three miles of riparian buffer in the Little Spokane River Watershed.
- **Send Warning Letters to Priority Sites**: If a landowner has received multiple letters and continues to remain out of compliance, Ecology will escalate to a warning letter with an

expectation of response within 30 days. Ecology anticipates sending warning letters to approximately two sites.

- **Follow-up on Non-point WQ Complaints:** Staff will continue to respond to any water quality complaints received from the public. Phone calls and/or letters may follow after staff have confirmed a water quality issue exists.

Monitoring Activities

Continue performing Comprehensive GIS Evaluation of Riparian Health: Using aerial imagery, staff will analyze current riparian condition for each parcel adjacent to a stream in the Watershed. As improvements are made, maps will track improving riparian health.

- **Tracking Non-Point BMP Implementation:** Ecology staff has partnered with Gonzaga University students and The Lands Council to monitor the efficacy of BMP's, such as Beaver Dam Analog's (BDAs) to reduce total Phosphorus, increase sinuosity and bank stability.
- **Establish Photo Monitoring Points**: Staff will establish photo monitoring points at pollution problem sites and document riparian condition improvements over time.

Priority Watershed: Moses Lake Watershed

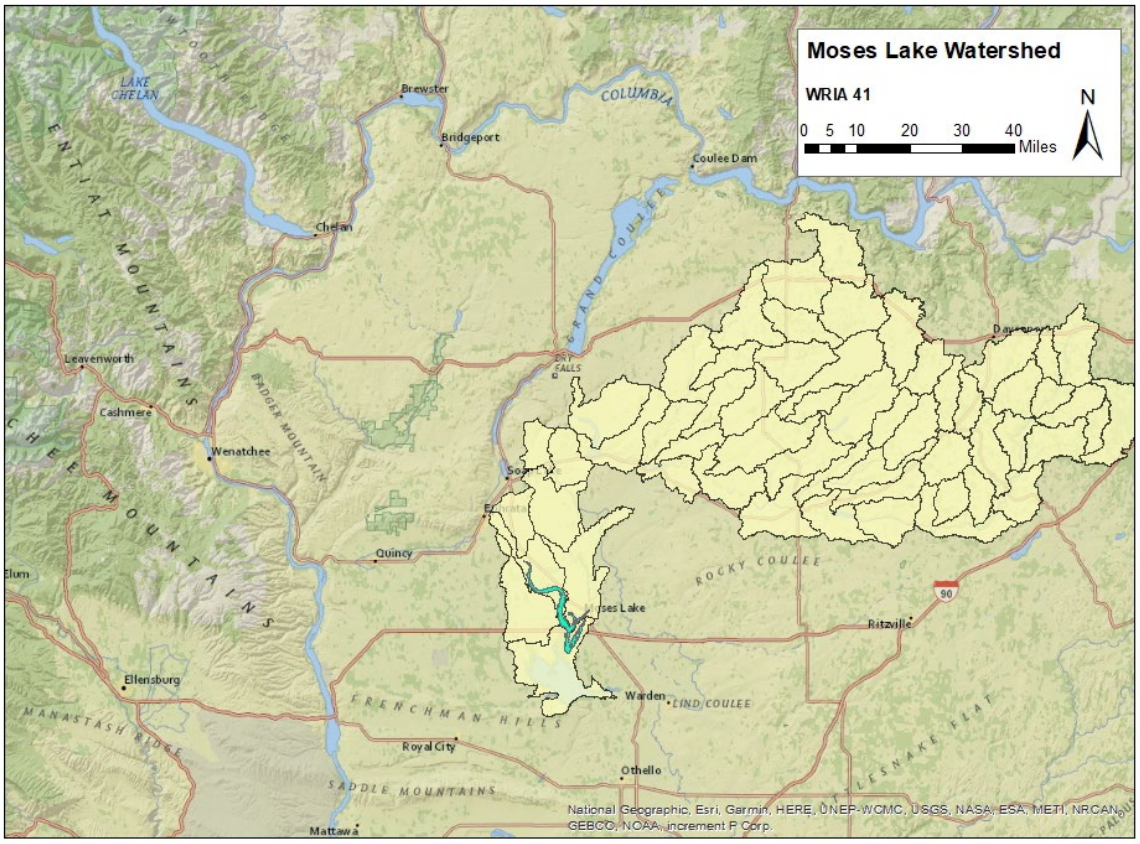

Figure 65. Map of the Moses Lake Watershed

Implementing: Other Locally Led Partnership

Summary/Context Info:

Ecology is a member of the Moses Lake Watershed Council (MLWC). The Columbia Basin Conservation District (CBCD, formerly the Grant County Conservation District) leads the collaborative entity, formed in 2018 with the purpose of facilitating locally led water quality improvements in the Moses Lake Watershed. The MLWC has grown to include a diverse group of local, state, and federal entities, including the Washington State Department of Ecology (Ecology), Moses Lake Irrigation and Rehabilitation District, Grant County Health District, City of Moses Lake, and the U.S. Bureau of Reclamation (USBR), along with representation from local tourism, businesses, and concerned citizens.

The MLWC was formed in direct response to persistent harmful algal blooms during summer months that impairs the public's use of Moses Lake and poses a great risk to public health and the health of pets and livestock. The MLWC is building on several decades of efforts studying Moses Lake's poor water quality. Work conducted by the University of Washington and the EPA Clean Lakes Project in the 1980's generated a large body of data and recommendations for

improving water quality. However, long-term management plans for the lake and Watershed were not developed or implemented. Ecology issued a draft Total Maximum Daily Load (TMDL) plan in 2002, but the TMDL process was suspended in 2004 due to a lack of political and community support. Instead of resuming the TMDL process, Ecology helped initiate a locally driven effort in 2019 to address sources of phosphorus pollution.

Priority Actions for 2025:

Education and Outreach

- **Attend Conservation District Board Meetings:** The CD boards are made up of area farmers and ranchers. Staff will attend a Columbia Basin Conservation District board meeting to inform the CD board of on-going water quality work, collaborate on project implementation.
- **Continue to Implement Public Information and Outreach Plan:** Ecology and partners developed and implemented an Information and Outreach Plan, including developing a website with information on cyanobacteria and how to report an algae bloom, along with information and resources for residents to take action to protect the lake.
- **Conservation District Education and Outreach Actions:** As provided in the following section, Ecology funds projects that have an education and outreach component. Several education and outreach workshops and events will take place because of funding in the Moses Lake Watershed in 2025.

Financial Assistance

- **Continue to Implement the Columbia Basin Conservation District Moses Lake Shoreline Restoration and Nutrient Reduction Project ($249,979.00):** This project will develop and implement a shoreline nutrient assessment technical assistance program for shoreline property owners, finish construction and maintenance on the shoreline restoration exhibit, conduct education and outreach activities, continue to support a groundwater study of phosphorus contributions by the Moses Lake Irrigation Project into Moses Lake and identify mitigation techniques.
- **Continue to Implement the Moses Lake Columbia Basin Conservation District Moses Lake Watershed Water Quality Assessment and Enhancement ($485,396.78):** This project will address nonpoint source pollution in the Moses Lake Watershed by identifying sources of nutrients entering Moses Lake, riparian restoration and cattle exclusion on Rocky Ford Creek, and education and outreach. The project will connect at least 20 shoreline homes to the municipal sewer system and eliminate their septic systems. 50 additional homes will have their septic system serviced.
- **Continue to Implement the Community Project Funding Moses Lake Water Quality ($3,100,000):** Ecology staff helped the Watershed Council secure federal funding for improving Moses Lake's water quality to reduce occurrences of harmful algal blooms.

Lanthanum-modified bentonite clay and other technologies are being used in deeper areas of the Rocky Ford Arm to prevent the release of phosphorus and mitigate approximately 10,000 pounds of internal phosphorus loading.

Partner Coordination

- **Continue to Participate in the Moses Lake Watershed Council:** The MLWC meets monthly. Subcommittees meet outside the regular meeting schedule to evaluate emerging technologies, data and monitoring, information and outreach, grants, and legislative activities.
- **Cattle Fence Project on Washington Department of Natural Resource Property:** Ecology will work with Washington Department of Natural Resources on a fence project to exclude cattle from the Rocky Ford arm of Moses Lake. A riparian buffer will also be planted between the fence and lake to filter run off.
- **Remove Non-Native Carp from the Lake:** Carp are a significant source of sediment and nutrient pollution as a result of bioturbation. They also bioaccumulate lake nutrients and release those as the die and decompose. Staff will work with partners to remove carp via bow hunting tournaments and/or gill netting operations.

Pollution Identification/Watershed Evaluation

- **Work with the Moses Lake Watershed Council on Pollution Identification:** There is no TMDL or STI strategy for Moses Lake. We are partnering with the Watershed council to address nutrient sources in the lake. Staff will partner to identify and reduce sources of nutrient pollution in the Watershed.

Compliance/Technical Assistance Activities

- **Develop Water Quality Protection Plan for Department of Natural Resources Lakeshore Site:** Staff will set up site visits with DNR and work to develop BMP plans for their property. The plans will include riparian buffers designed to fully protect water quality.
- **Implement Water Quality Protection Plans/Riparian Buffers:** Using a combination of technical/financial assistance as well as compliance tools, Ecology staff will work to ensure implementation of one mile of riparian buffer along the Moses Lake shoreline.
- **Follow-up on Non-point WQ Complaints:** Staff will continue to respond to any water quality complaints received from the public. Phone calls and/or letters may follow after staff have confirmed a water quality issue exists.

Monitoring Activities

- **Establish Photo Monitoring Points**: Staff will establish photo monitoring points at pollution problem sites where BMPs are implemented and document riparian condition improvements over time.

Priority Watershed: Whitman Snake River Tributaries

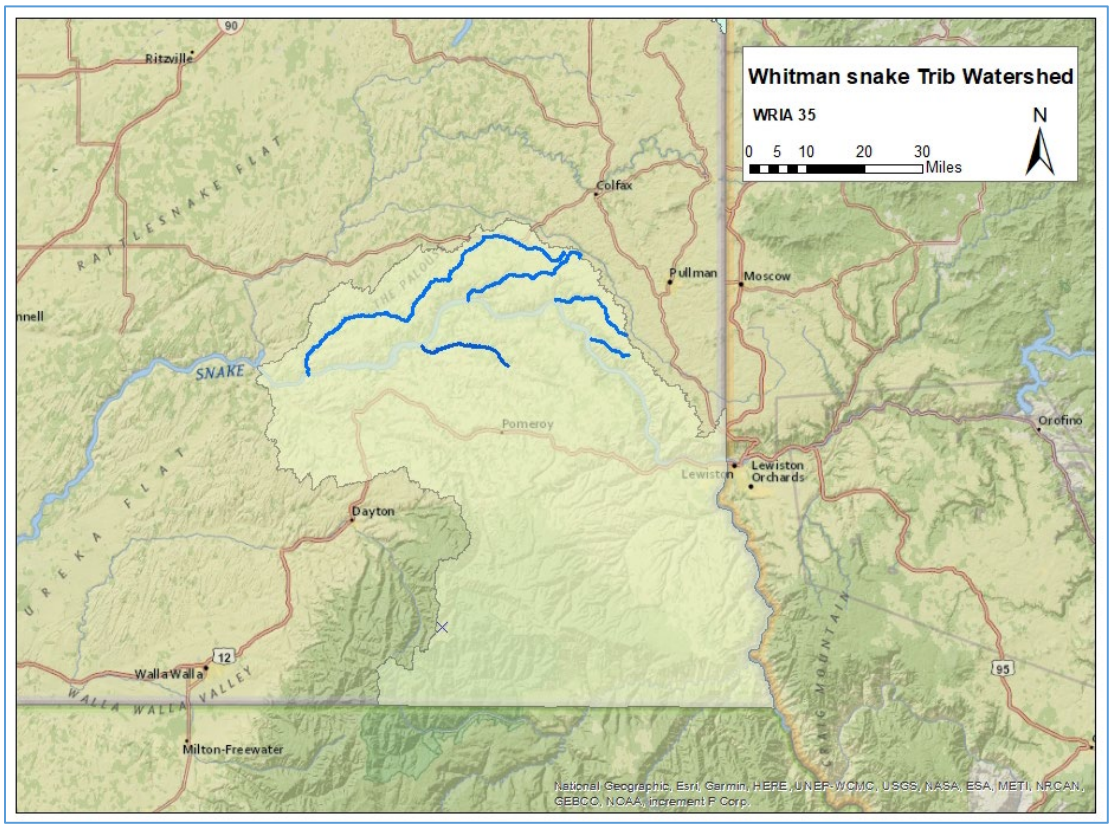

Figure 66. Map showing Snake River Tributaries (Steptoe, Almota, and Alkali Flat creeks).

Implementing: Steptoe Creek STI, Early Implementation Actions for Almota Creek and Alkali Flat Creek STIs (In development).

Summary/Context Information:

A number of northern Snake River tributaries in Whitman County have been identified as Category 5 on the Water Quality Assessment. Some Watersheds currently have established Straight to Implementation Strategies in place (Steptoe Creek) and others currently in development (Almota Creek and Alkali Flat Creek). These northern tributaries are largely dominated by agricultural land-use with livestock issues often impacting the riparian habitat. Ecology has continued to work with local partners through project implementation and technical assistance to further combat these issues.

Priority Actions Projected for 2025:

Education and Outreach

- **Partner with the Palouse Conservation District on Conservation Tillage Education**: Through grant funds PCD hosted various presentations, tours, and outreach materials for local producers on conservation tillage and riparian buffers. PCD has utilized multiple

Ecology grants to develop a conservation tillage cost-share program which is well advertised throughout the district's footprint and beyond.

- **Partner with the Whitman Conservation on Outreach to Students**: District staff will continue to work with K-12th grade classrooms and university students through numerous grants funded through Ecology.

Financial Assistance

- **Implement the Palouse Conservation District, *Supporting Sustainable Ranching on Snake River Tributaries* ($500,000)**: The PCD will work with livestock producers along both Steptoe Creek and Wawawai Canyon to install livestock BMPs, increase monitoring, and provide education/outreach to local livestock producers. The grant provides funding to help install riparian buffers at livestock priority pollution sites identified by Ecology staff.
- **Continue to implement the Whitman Conservation District *Alkali Flat Creek Water Quality Enhancement* ($280,000):** This project will restore a minimum of 21 acres of riparian buffer and 9,250 stream feet across the Alkali Flat Creek Watershed. In addition to riparian plantings, 40 post assisted log structures will be installed, and the conservation district will provide education and outreach to the community.
- **Continue to implement the Palouse Conservation District *Alkali Flat Creek Property Protection* ($1,000,000):** This project will protect 437 acres adjacent to Alkali Flat Creek. Preserving this property is important for showcasing conservation practices that promote soil health and reestablish and protect native prairie, riparian species, anadromous fish, and water quality.
- **Continue to implement the Palouse Conservation District *Pioneer Stock Farms Critical Land Acquisition* ($140,565):** This project will support the existing Ecology grant, Alkali Flat Creek Property Protection. Palouse Conservation District will acquire 437 acres along Alkali Flat Creek.
- **Begin implementation on Whitman Conservation District's *Mud Flat Creek Restoration* ($500,000):** This grant will support water quality in Mud Flat Creek which is a main tributary of Alkali Flat Creek. Livestock exclusion fencing, riparian buffer establishment, and low-tech bank stabilization will be implemented along with engineered high use areas to protect the creek.

Partner Coordination

- **Host Quarterly Meetings with the Whitman Conservation District:** Ecology will continue to work closely with the staff of Whitman CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in the region.
- **Host Quarterly Meetings with the Palouse Conservation District**: While much of the work the Palouse CD revolves around the Palouse Watershed, their district falls within

the boundaries of both Steptoe Creek and Wawawai Canyon. Ecology will continue to work with PCD staff through various project implementation, technical assistance, and events.

- **Participate with the Snake River Salmon Recovery Board:** Ecology consistently works with various partners involved in salmon recovery efforts in the region, including within Whitman County. As a lead entity voting member and a member of the Regional Technical Team, Ecology assists with the SRSRB annual grant round and provides technical assistance for water quality issues as they relate to salmon recovery and habitat restoration.
- **Participate with the Snake River Local Working Group**: Ecology staff participate in this basin wide working group focused on challenges and solutions to the greater Snake River Watersheds.
- **Attend at least two CD board meetings:** CD boards are composed of farmers and ranchers in that district. Staff will participate in board meetings to inform them of our on-going non-point pollution work and answer questions.

Pollution Identification/Watershed Evaluation

- **Perform Comprehensive Watershed Evaluation**: Annual surveys will be conducted during the early spring season to identify livestock water pollution issues. Work will be focused on a majority of Snake River tributaries including Alkali Flat Creek, Penawawa Creek, Almota Creek, Wawawai Canyon, and their associated tributaries.
- **Prioritize Sites for Technical and Financial Assistance:** Sites are evaluated along with all other Snake River and Palouse Watershed tributaries to determine roughly 5 new technical and financial letters.
- **Respond to Non-Point Complaints:** ERO responds to all water quality related complaints in the Watershed. If pollution site is identified to be of concern, ERO will send a follow-up technical assistance letter to further address the water quality concern.
- **Update Nonpoint Inspection (NPI) database:** Systematically identify and document sites of concern in the NPI database.
- **Continue to identify sites of concern:** Continue to work in the field and within the community to identify additional sites of concern that have not yet been prioritized.

Compliance/Technical Assistance Activities

- **Contact at Least Three New Priority Sites:** Staff will contact landowners with livestock water quality issues via technical and financial assistance letters. All letters are followed up with multiple phone calls (if contact number is available) throughout the year to ensure continued communication with Ecology and landowner.
- **Ensure Final Steptoe Order Implementation:** An administrative order was sent to a landowner in the Steptoe Creek Watershed in 2019 addressing ongoing livestock

pollution issues. Since the order was sent, Ecology, along with the partnership of the Palouse CD have developed a plan to address the site. Most of the riparian buffer and Order elements have been implemented. A final step will be completed as part of an FY22 grant that extends through 2025.

- **Provide Compliance Follow-up:** Follow-up and continue technical assistance efforts with landowners who have received letters from Ecology.
- **Evaluate and respond to incoming ERTS complaints:** Continue to respond directly or coordinate with WSDA, Whitman County, and other partners to address nonpoint pollution sources.

Monitoring Activities

- **Continue to Partner with the Palouse Conservation District to monitor in Steptoe Creek**: Monitoring will help ensure livestock BMPs implemented in the Watershed work to fully protect water quality. This will help adaptive management in the Watershed.
- **Establish Photo Monitoring Points**: Staff will continue established photo monitoring points at pollution problem sites and document riparian condition improvements over time.

Priority Watershed: Blue Mountain Snake River Tributaries

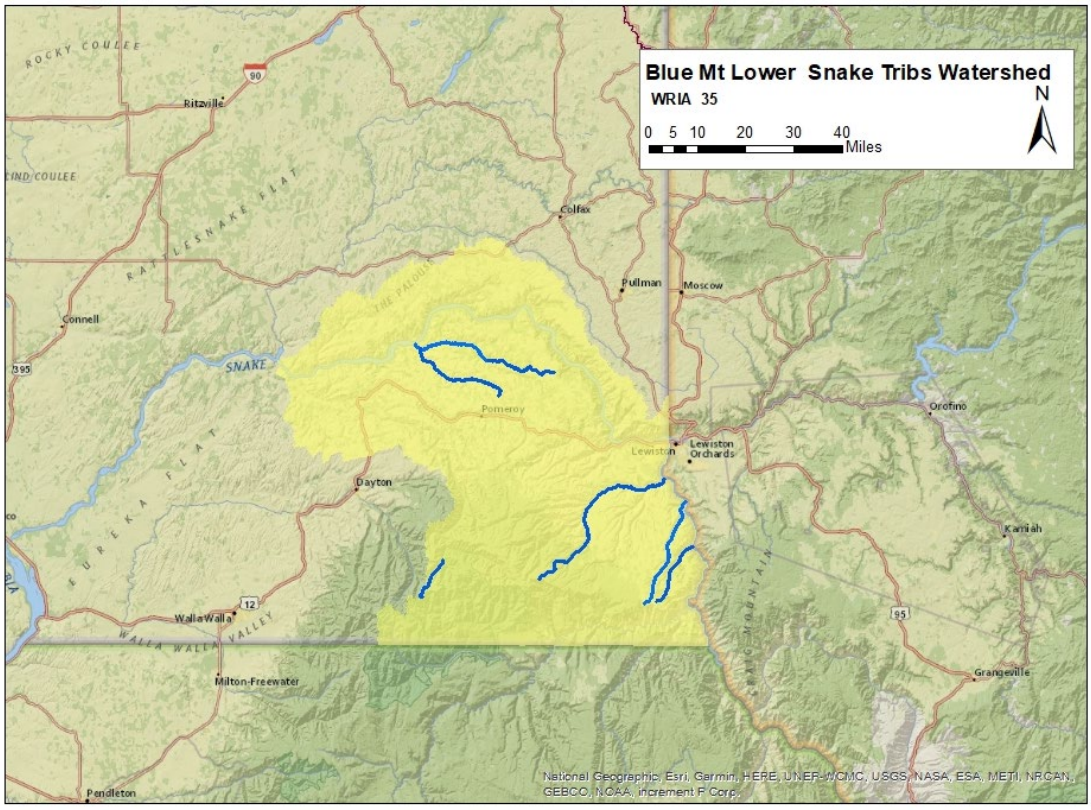

Figure 67. Map showing Snake River Tributaries (Asotin, Alpowa, Deadman, Meadow, Tenmile, and Couse creeks).

Implementing: Pataha Creek TMDL in development, Asotin Creek STI and Alpowa Creek, Deadman and Meadow Creeks, Tenmile Creek, and Couse Creek 4b projects.

Summary/Context Information:

The Blue Mountain/Lower Snake tributaries comprise all the Snake River tributaries ranging across Columbia, Garfield, and Asotin Counties. These drainages primarily originate in the Blue Mountains or foothills surrounding the region. The headwaters and upstream sections are often forested with minimal land-use and switching to agriculturally dominated lower reaches. Livestock grazing remains an ongoing concern throughout the Watershed. Ecology has initiated 4b Straight to Implementation strategies in these Watersheds, provided the lack of point sources and significant progress is being made to address well understood nonpoint pollution issues. Ecology is actively working in these Watersheds to continue to implement projects and work with partners to address these issues. A monitoring effort on these 4b Straight to Implementation waterways was completed in 2024 that monitored temperature, E. coli and pH for a full water year. This monitoring effort will help to inform where water quality impairments continue to exist and advise where continued resources are required going forward into 2025. In addition to this 4b monitoring work, TMDL scoping and data collection was begun for Pataha

Creek that will investigate bacteria, dissolved oxygen, and pH levels. Data collection for these parameters, as well as turbidity and temperature, will occur over a full water year into 2025.

Priority Actions Projected for 2025:

Education and Outreach

- **Attend Two Conservation District Board Meetings:** The CD boards are made up of area farmers and ranchers. Staff will attend two board meetings to inform the CD board of on-going water quality work in the Blue Mountains, collaborate on project implementation, and answer questions on efforts to implement STI and TMDL projects.
- **Continue to Partner with the Asotin Conservation on Outreach Efforts:** District staff will continue to produce newsletters, flyers, and articles pertaining to water quality protection and BMP implementation for various groups throughout Asotin County. The district will continue to host public events through workshops and open houses focused on water quality education. An FY22 grant is continuing these efforts.
- **Continue Participation with Snake River Salmon Recovery Board Meetings**: Ecology staff presented and assisted with local project leads on salmon recovery projects that interact with water quality BMPs. Staff assisted with identifying water quality improvements for projects looking to protect and restore salmonid habitat.

Financial Assistance

- **Continue Implementing the Asotin County Conservation District *Water Quality Enhancement Project* ($333,333):** This grant will continue implementing various BMPs across 40,000 stream feet of Asotin County tributaries including a minimum of 20,000 plantings. BMPs include riparian buffers, streambank stabilization, livestock exclusion, and direct seeding. The project supports implementation at priority sites identified via Ecology Watershed evaluations. This grant is active through the end of 2025.

Partner Coordination

- **Host Quarterly Asotin County Conservation District Coordination Meetings:** Ecology works closely with the staff at Asotin CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in Asotin County.
- **Host Pomeroy Conservation District Coordination Meetings**: Ecology works closely with the staff at Columbia CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in Garfield County.
- **Partner with the Columbia Conservation District:** Ecology will continue to work to develop a closer relationship with newly hired CD staff to identify issues, coordinate plans/projects, and provide technical assistance to the public in Columbia County.

- **Participate on the Snake River Salmon Recovery Board RTT:** Ecology consistently works with various partners involved in salmon recovery efforts in the region. As a lead entity voting member and a member of the Regional Technical Team, Ecology assists with the SRSRB annual grant round and provides technical assistance for water quality issues as they relate to salmon recovery and habitat restoration.
- **Lead Pataha Creek TMDL Development Advisory Group:** The Snake River Salmon Recovery Board technical team is serving as the TMDL Advisory Group. Staff will provide regular updates on the TMDL study and seek feedback from the group.
- **Participate in Snake River Local Working Group Meeting**: Ecology staff participate in this basin wide working group focused on challenges and solutions to the greater Snake River Watersheds.

Pollution Identification/Watershed Evaluation:

- **Perform Comprehensive Watershed Evaluation**: Annual surveys will be conducted during the early spring season to identify livestock water pollution issues. Work will be focused on a majority of Snake River tributaries including the Tucannon River, Pataha Creek, Deadman Creek, Meadow Creek, Alpowa Creek, Asotin Creek, Tenmile Creek, Couse Creek, and associated tributaries.

- **Perform Water Quality Monitoring:** Water quality parameters (E. coli, pH, DO) are being monitored in Pataha Creek to evaluate current levels of impairment. TMDL development is underway for this waterway and the data collected will help to identify priority areas for restoration.

Compliance/Technical Assistance Activities

- **Contact New Priority Pollution Sites for Assistance:** Approximately three new landowners with livestock water quality issues will be prioritized and contacted via technical and financial assistance letters. All letters are followed up with multiple phone calls (if contact number is available) throughout the year to ensure BMP plans are developed and implemented.

- **Follow-Up with Landowners of Previous Priority Sites:** Landowners who have received technical assistance letters in previous years and who remain out of compliance will be contacted again through additional phone calls and follow-up technical/financial assistance letters. If landowner has received multiple letters and continued to remain out of compliance, ERO may send a warning letter.
- **Follow up on non-point complaint sites:** Contact valid compliant sites with non-point pollution issues and schedule site visits to provide technical and financial assistance.

Phone calls and/or letters will follow with the goal of developing a plan for water quality protection and implementing the plan.

Monitoring Activities

- **Established Photo Monitoring Points:** Staff established photo monitoring points at pollution problem sites and documented riparian condition improvements over time.
- **Continue Monitoring Program on Pataha Creek:** Ecology's Environmental Assessment Program monitoring effort on Pataha Creek will continue through September 2025 for data collection representing a full water year. The data collected will be compared to previously documented impairments and help to inform what the drivers in impairment are that will help to prioritize non-point BMP implementation. Updated water quality data will help to evaluate the effectiveness of BMP implementation, and direct where future focus is needed.

Priority Watershed: Walla Walla River Watershed

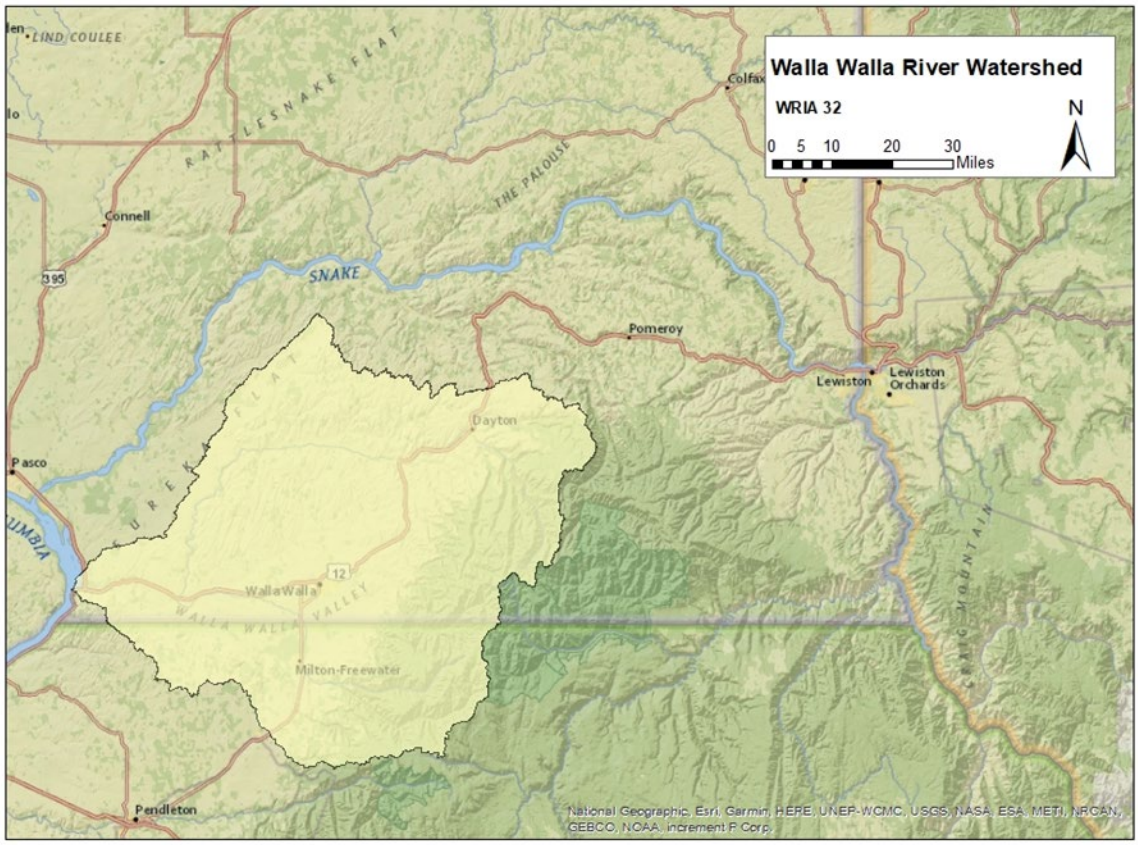

Figure 68. Map of the Walla Wall River Watershed

Implementing: Walla Walla River Watershed Multiparameter TMDLs (Bacteria, Temperature, pH, DO, Toxics)

Summary/Context Info:

The Eastern Region is continuing to implement the Walla Walla Watershed Multiparameter TMDL Water Quality Implementation Plan. A recent effectiveness monitoring study was completed in the Watershed and published in 2021. Ecology has been active throughout the Watershed through collaborating with local groups, funding restoration projects, and identifying new and ongoing water quality concern sites through annual Watershed evaluations. The evaluations identify parcels with pollution problems. Regional staff then work with landowners and local partners to implement appropriately sized riparian buffers. Due to collaborative work with the Walla Walla 2050 Working Group, properties needing improvement in upland agricultural land management focusing on soil stabilization will be added to priority sites, which will be offered technical and financial assistance.

Priority Actions Projected for 2025:

Education and Outreach

- **Partner with Kooskooskie Commons on Farm BMP Outreach:** Ecology will partner on enhanced technical assistance outreach for environmental farm practices and riparian buffer management in the Walla Walla Watershed. Kooskooskie Commons and Ecology will hold various meetings, workshops, and tours in the region.

- **Attend Conservation District Board Meetings:** The CD boards are made up of area farmers and ranchers. Staff will attend two board meetings to inform the CD board of on-going water quality work in the Walla Walla Watershed, collaborate on project implementation, and answer questions on efforts to implement TMDL projects.

- **Participate in Local Outreach Events:** Ecology staff will attend local outreach events to help educate the public about water quality, as opportunities are presented.

- **Continue participation in Policy, Funding and Outreach (PFO) Workgroup Meetings:** PFO is a subgroup within the larger Walla Walla 2050 effort. This work group is comprised of local organizations and interested community members, focused on implementing public engagement and education.

Financial Assistance

- **Begin implementing the Walla Walla County Conservation District Touchet River Mile 35 Restoration – Phase 1 Project ($500,000):** This project will restore a one-mile reach of the Touchet River west of Prescott, WA. Phase 1 restoration activities include installing in-stream and bank bio-engineered log structures, enforced log jams, and other large woody material; completing side channel pilot cuts; and planting bank vegetation. Project outcomes include increased shade, floodplain inundation, sediment deposition, and side channels, which will improve water and salmonoid habitat quality.
- **Begin implementing the Walla Walla County Conservation District Lower Mill Creek River Mile 4.0 – Phase 1 Project ($500,000):** Walla Walla County Conservation District will restore a 1.5-mile stretch of Mill Creek, a tributary of the Walla Walla River, thereby improving its ecological function and addressing existing water quality impairments. Phase 1 implementation activities include installing various logjam and habitat structures; reconnecting side channels; and planting riparian vegetation. Project outcomes include increased shade, floodplain inundation, sediment deposition, and side channels.
- **Begin implementing the Walla Walla County Conservation District Touchet River Mile 42 Restoration – Phase 1 Project ($480,000):** This project will restore a 1.4-mile reach of the Touchet River west of Waitsburg, WA. Phase 1 restoration activities include installing enforced log jams, pile fields, and other large woody material; completing side

channel pilot cuts; and planting bank vegetation. Project outcomes include increased shade, floodplain inundation, sediment deposition, and side channels, all which will improve water and salmonoid habitat quality.

- **Continue implementing the Walla Walla County Conservation District Canopy Cover Improvements on the Touchet River – Phase 2 Project ($312,864):** Active through summer 2025, this grant continues work to address temperature issues in the Touchet River by removing invasive false indigo and planting 2.5 miles of riparian vegetation.
- **Continue implementing the Kooskooskie Commons, *Water Quality Improvements on Yellowhawk Creek Project* ($317,886):** This grant supports implementation of a riparian restoration program along Yellowhawk Creek and the Walla Walla River to address temperature and fecal coliform impairments resulting from legacy agricultural practices. Kooskooskie Commons will install native riparian buffers, monitor water quality, perform public outreach, and explore land trust easements for long-term protection of riparian areas and water trust agreements to protect flows and cold-water inputs to the stream. This grant is active through 2026.

- **Complete implementation of the Walla Walla County Conservation District, *Mill Creek Debris Removal Project* ($49,750):** This grant was funded by water quality penalties money and was a priority to the local community. The grant removed and disposed of an abandoned house from that was washed into Mill Creek following a destructive flood in 2020. The house debris in the channel was continuing to deposit waste downstream and was originally reported as an ERTS that became a collaborative effort to address.

- **Complete implementation of the Walla Walla County Conservation District, *Dry Creek Riparian Enhancement and Erosion Control* ($54,307):** This grant was funded by water quality penalties money and helped to address severe bank erosion where floodplain reconnection is not able to occur. A gap in riparian vegetation left a section of Dry Creek vulnerable to erosion, this grant funded a soft structure to stabilize the bank and plant a woody riparian buffer to protect the channel integrity into the future. This project site is a historic CREP contract and has good floodplain connection downstream. Where the erosion was occurring was a threat to water quality due to the adjacent land use.

Partner Coordination

- **Host Quarterly Meetings with the Walla Walla County Conservation District**: Ecology staff work closely with the conservation district staff in planning and implementing Ecology grant funded projects.

- **Participate on the Snake River Salmon Recovery Board Technical Team:** Ecology works with various partners involved in salmon recovery efforts in Walla Walla. As a lead entity

voting member and a member of the Regional Technical Team, Ecology assists with the SRSRB annual grants and provides technical assistance to the group for water quality issues.

- **Participate in the Mill Creek Working Group:** Ecology staff participates in the monthly working group focused on the Mill Creek Watershed and the flood control zone of Mill Creek operated by the Army Corps of Engineers.

- **Participate in the Snake River Local Working Group:** Ecology staff participate in this basin wide working group focused on challenges and solutions to the greater Snake River Watersheds.

- **Participate in the Walla Walla 2050 Planning Efforts:** Ecology's Office of the Columbia River are partnering with local entities in the Walla Walla Watershed to develop new ways to protect water resources, water quality, and habitat. Ecology staff participated in workgroups and drafting of plans focused on water quality aspects of this effort.

- **Coordinate with partner agencies:** Ecology staff will hold meetings and coordinate with state and federal agencies to develop plans to protect water quality through the implantation of best management practices.

Pollution Identification/Watershed Evaluation:

- **Perform Annual Watershed Evaluations:** Surveys will be conducted during the early spring season of 2025 to identify livestock and upland crop water pollution issues. Work will be focused on the Walla Walla River main stem and various tributaries including Pine Creek, Mud Creek, West Little Walla Walla River, East Little Walla Walla River, Garrison Creek, Cottonwood Creek, Russel Creek, Dry Creek, Spring Creek, Coppei Creek, Touchet River, and Patit Creek.

- **Prioritize Pollution Sites for Assistance**: Sites are evaluated along with other Snake River Watershed tributaries to determine new technical and financial letters to be sent out to landowners with water quality pollution issues.

Compliance/Technical Assistance Activities

- **Contact New Priority Pollution Sites for Assistance:** Approximately three new landowners with livestock water quality issues will be contacted via technical and financial assistance letters. All letters are followed up with multiple phone calls (if contact number is available) throughout the year to ensure BMP plans are developed and implemented.

- **Follow-Up with Landowners of Previous Priority Sites:** Landowners who have received technical assistance letters in previous years and who remain out of compliance will be contacted again through additional phone calls and follow-up technical/financial assistance letters. If landowner has received multiple letters and continued to remain out of compliance, ERO may send a warning letter.

- **Follow up on non-point complaint sites:** Contact valid compliant sites with non-point pollution issues and schedule site visits to provide technical and financial assistance. Phone calls and/or letters will follow with the goal of developing a plan for water quality protection and implementing the plan.

Monitoring Activities

- **Continue Partnering with Kooskooskie Commons to Collect Baseline Water Quality Data.** Kooskooskie Commons will continue water quality monitoring through the FY22 grant. Data collection will occur at sites above and below active riparian restoration areas and on tributary creeks to Yellowhawk Creek (Caldwell, Lasiter, Whitney Spring Creeks and Reser, Russell and Cottonwood Creeks), as well as above and below previous restoration sites on the West Little Walla Walla River. Data collected will include temperature, pH, dissolved oxygen, conductivity and turbidity, and E. coli bacteria.

Priority Watershed: Upper Colville River Watershed

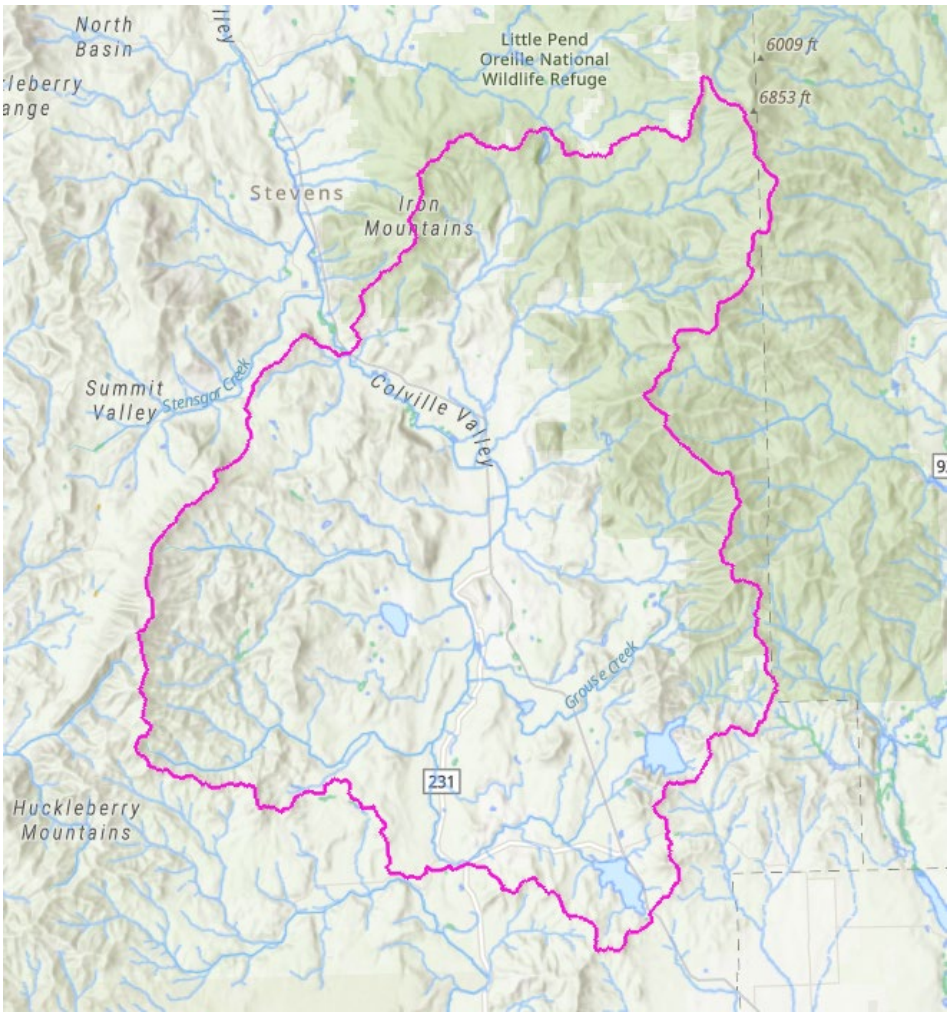

Figure 69. Map of the Upper Colville River Watershed

Implementing: **Upper Colville Straight to Implementation**

Summary/Context Information:

The Eastern Region is developing a Straight to Implementation strategy for a portion of the Coville River for multiple listed parameters including temperature, bacteria, dissolved oxygen, and pH. The upper Watershed is dominated by agricultural land use including tillage and livestock grazing. Forest practices are also a concern in the higher elevation portions of the Watersheds. Ecology performed Watershed evaluations in 2024 and contacted 5 problem sites. Regional staff will work with these landowners and local partners to implement appropriately sized riparian buffers. Ecology anticipates completing a Straight to Implementation strategy for the Upper Colville in 2025 and submitting it to EPA for comment.

Priority Actions Projected for 2025:

Education and Outreach

- **Attend at least two Conservation District Board Meetings:** The Conservation District Boards are primarily made up of area farmers and ranchers. Ecology's Eastern Regional Office hired 3 new fulltime Watershed unit positions in 2024. With the hiring of the new positions, Ecology anticipates on having the capacity to attend Conservation District Board Meetings again in 2025.
- **Straight to Implementation Mailer:** Share message regarding water quality protection goals as described in the Straight to Implementation strategy. Share information on available financial and technical assistance for Watershed residents.
- **One on One Discussions with Landowners:** Ecology staff will conduct site visits with landowners and producers contacted for having water quality concerns. These site visits typically last over an hour and contain meaningful and often difficult conversations on water quality issues. Although often challenging, these outreach activities can be incredibly fruitful for water quality education and implementation efforts.
- **Watershed Workshops:** Ecology will partner with the Stevens Conservation District to provide landowners an opportunity to learn about state water quality law and conservation programs available to them.

Financial Assistance

- **Funding for a New Riparian Restoration Program:** Ecology is hopeful it can partner with Stevens County CD on a project similar to the Hangman Riparian Restoration and Conservation Program. We will look for opportunities to incentivize buffer implementation in the Upper Colville Watershed.

Partner Coordination

- **Attend Quarterly Meetings with the Stevens Conservation District:** Ecology will continue to work closely with the staff of Stevens CD to identify issues, coordinate plans/projects, and provide technical assistance to the public in the region.
- **Semi-Annual Meetings with the Stevens County Commissioners:** Meet twice annually with the Commissioners to inform them of our Straight to Implementation work. Answer questions on water quality protection.
- **Meetings with the Spokane and Colville Tribes:** Ecology staff continued to meet with the tribes to discuss the Colville River and determine if they are interested in partnering on Colville River restoration efforts.
- **Meetings with Other Watershed Partners:** Ecology staff will meet regularly with Watershed partners to plan and coordinate implementing best management practices that improve and protect water quality.

Pollution Identification/Watershed Evaluation:

- **Continue to Perform Comprehensive Watershed Evaluations of Upper Colville Watershed**: Annual surveys will be conducted during the early spring season to identify livestock and dryland agricultural water pollution issues.

Compliance/Technical Assistance Activities

- **Contact Five Priority Pollution Sites:** Ecology staff will contact five new landowners with livestock or dryland agricultural water quality issues via technical and financial assistance letters. All letters will follow up with email or phone calls (if contact number is available) throughout the year to ensure continued communication with the landowner.
- **Create Riparian Buffer Maps for Landowners:** Staff will set up site visits with contacted landowners and develop riparian buffer maps for priority sites. The plans will include visual representations and acre estimations of riparian buffers designed to fully protect water quality.
- **Follow-up on Nonpoint WQ Complaints:** Staff will continue to respond to any water quality complaints or technical assistance requests received from the public. Phone calls and/or letters may follow after staff have confirmed a water quality issue exists.

Monitoring Activities

- **Monitor Existing Sites:** Staff will continue to monitor and document existing sites where water quality concerns persist.

- **Establish Photo Monitoring Points:** Staff established photo monitoring points at pollution problem sites and documented riparian condition improvements over time.

Appendix D. Maintenance of Effort (MOE) List for State Fiscal Year 2024 per CWA Section 319(h)(9)

Statement of Maintenance of Effort (MOE) related to Section 319(h)

MOE Base Level: Based on available Ecology data from 1985 and 1986, the average level of annual pass-through awards for nonpoint source control projects focused on improving water quality was $480,254. Projects were funded using state Referendum 39 funds.

MOE Maintenance: Ongoing pass-through funding for nonpoint source projects focused on restoration and protection of water quality has far exceeded the MOE Base Level, mostly through resources provided through the Washington State Centennial Clean Water Fund and the Clean Water State Revolving Fund (CWSRF).

Between 1988 and 2024 Ecology has awarded an average of more than $4 million per year in state nonpoint source project funding. These funds were not used as Section 319 or other federal match.

In State Fiscal Year 2024 Ecology offered $4,307,341 in state funds not used as Section 319 or other federal match from our Centennial Grant Program (see below).

Table 13. Final SFY24 Nonpoint Source Projects-Excluding 319 State Match Projects

ECY Project Number	Recipient Organization	Project Name	Award Amount
WQC-2024-BentCD-00090	Benton Conservation District	Water Quality and Temperature Improvements in lower Yakima Tributaries	$311,500
WQC-2024-BentCD-00214	Benton Conservation District	Supporting Lower Yakima River TMDLs & Scientific River Management	$261,000
WQC-2024-CascCD-00119	Cascadia Conservation District	Wenatchee Basin Stream Restoration and Water Quality Improvement Project	$349,770
WQC-2024-ChCoNR-00061	Chelan County - Natural Resource Department	Addressing the Temperature TMDL in Peshastin Creek	$268,291
WQC-2024-ChCoNR-00135	Chelan County - Natural Resource Department	Kahler Cr Alluvial Water Storage and Nason Cr Temperature Improvement Project	$286,281

WQC-2024-ClalCD-00131	Clallam Conservation District	Improving and Protecting Water Quality on Horse and Livestock Operations	$210,136
WQC-2024-ClaPUD-00006	Clark Public Utility District	McCormick Creek Restoration II	$256,562
WQC-2024-FoCrCD-00029	Foster Creek Conservation District	Foster Creek Watershed Restoration Program	$266,283
WQC-2024-GCCD-00111	Grant County Conservation District	Restoration of Riparian Zones & Critical Areas within Moses Lake Watershed	$485,397
WQC-2024-JeCoPH-00047	Jefferson County Public Health	Watershed Conservation Fund Feasibility and Pilot Project	$500,000
WQC-2024-KiCPWD-00228	Kittitas County - Public Works Department	Mercer Creek Design and Stewardship	$208,441

WQC-2024-PaloCD-00127	Palouse Conservation District	Pioneer Stock Farm Critical Lands Acquisition, Part 1	$500,000
WQC-2024-SnohCD-00074	Snohomish Conservation District	South Fork Stillaguamish Floodplain Restoration Phase 2	$246,680
WQC-2024-SpoCoD-00064	Spokane Conservation District	Direct Seed Loan Program	$157,000

Total award amount: $4,307,341

Appendix E. EPA Letter conveying approval of Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution (Nonpoint Plan), submitted in 2022

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155
Seattle, WA 98101

WATER DIVISION

August 14, 2023

Mr. Vince McGowan, Manager
Water Quality Program
Washington State Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Re: EPA Review of *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution*

Dear Mr. McGowan:

Thank you for submitting the update to *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution* on December 30, 2022 (2022 Plan), and the four chapters of the *Voluntary Clean Water Guidance for Agriculture*. EPA appreciates the effort that the Department of Ecology (Ecology) invested in developing these materials. EPA has completed its review of Washington's 2022 Plan and approves the Plan because it addresses the key components of an effective nonpoint source management program described in Appendix A of the current Clean Water Act (CWA) Section 319 grants guidelines.[1] EPA's evaluation describing how the 2022 Plan addresses these key components is enclosed.

This letter provides expectations for continued improvements to Washington's Nonpoint Source Management program (NPS program), which is one of many tools the State uses to advance water quality protections. EPA considers the expectations in this letter critical to Washington's progress as it implements both the NPS program and as it improves water quality through other programs. Based on input received from tribes related to tribal treaty rights and line with EPA's tribal trust responsibility, the Agency will coordinate closely with Ecology as it moves forward.

The submittal package is consistent with the Agency's CWA Section 319 grants guidelines recommendation that states periodically update their nonpoint source management programs to keep the programs current and relevant, and to establish new goals, objectives and annual milestones. Washington has committed to completing the remaining chapters of the *Voluntary Clean Water Guidance for Agriculture* and to submit another update to its NPS program to EPA no later than December 31, 2025. *Northwest Environmental Advocates vs. U.S. Dep't of Com. et al.*, Case No. 2:16-cv-01866-JCC (W.D. Wash.), Dkt. No. 175.

[1] Nonpoint Source Program and Grants Guidelines for States and Territories, Apr. 12, 2013, *available at*: https://www.epa.gov/sites/default/files/2015-09/documents/319-guidelines-fy14.pdf (2014 CWA 319 Grants Guidelines).

The 2022 Plan describes how Washington's NPS program will protect and improve water quality in the State through process improvement, program integration and watershed prioritization. The Plan also sets goals, measurable milestones and reporting metrics for the next three years. Consistent with the CWA section 319 grants guidelines, EPA expects Ecology to keep Washington's NPS program current and, as part of that, to identify program priorities, the specific authorities and measures Ecology will use to control nonpoint sources of pollution, as well as an implementation schedule with steps and benchmarks, particularly for temperature in salmon streams. In addition, EPA encourages Ecology to continue to work with NPS program partners to set specific milestones in future NPS program updates or annual grant workplans that are sufficiently detailed for EPA to assess implementation progress.

The 2022 Plan acknowledges the importance of collaborating with tribes, state and local governmental entities, and other partners who provide valuable expertise and are important to implementing Washington's NPS program. Additionally, Ecology agreed to conduct a comprehensive review of the State's NPS program and to submit the next update to EPA by December 31, 2025. In the spirit of this commitment, EPA acknowledges that Ecology is planning to establish an expanded and comprehensive process that includes:

- Early, direct and meaningful engagement and participation of Washington tribes, including holding tribal workshops each year;
- Effective collaboration with other state and local nonpoint source program partners (e.g., Washington Department of Agriculture, Washington Department of Fish and Wildlife, Washington Department of Health, Washington State Conservation Commission, etc.); and
- Sufficient public outreach and comment period timeframes.

The majority of waters under Washington's jurisdiction are subject to treaties that provide tribes a legally protected right to fish. During EPA's tribal consultation and engagement on the 2022 Plan, participating Washington tribes raised concerns about the impacts of nonpoint source pollution, particularly temperature, on treaty-protected resources. Washington's 2022 Plan recognizes the importance of treaty resources, such as shellfish and salmonids, to tribes and identifies implementation measures Ecology will use to protect such resources.

Improving water quality to achieve water quality criteria, including for temperature, is critical to ensuring the protection of designated uses and to the recovery of salmonids listed as threatened or endangered under the Endangered Species Act (ESA), and thus to the protection of tribal treaty resources. In addition to the measures identified in the 2022 Plan, EPA expects Washington to prioritize the following actions as part of the State's broader efforts to improve water quality:

- Continue to prioritize the CWA section 319 funds allotted for watershed projects to projects which implement riparian buffers that protect water quality and threatened and endangered species and their designated habitat areas;

- In both the Voluntary Clean Water Guidance and the Water Quality Combined Funding Guidelines, include reference to the minimum buffer widths that the National Marine Fisheries Service recommends to protect threatened and endangered salmonids;
- Increase incentives and explore additional alternatives and methods to implement site potential tree height;
- In cases where a project proponent proposes to deviate from the presumptive default buffer widths in the Voluntary Clean Water Guidance, discuss in the required feasibility assessment document: 1) how the buffer protects water quality and ESA listed species, where present, which may include other considerations beyond buffer width; 2) how the buffer is consistent with best available science; and 3) how the buffer still supports the local plan (e.g., Total Maximum Daily Load, watershed, or salmon recovery plan) being implemented;
- Focus community engagement to identify additional efforts needed to address temperature impairments in the Stillaguamish, Skagit, Willapa, Snoqualmie, White, Deschutes, and South Fork Nooksack Rivers;
- Identify specific, measurable, achievable, relevant, and time-bound (SMART) goals and objectives within the Plan, including specific schedules to the extent feasible; and
- When voluntary and incentive-based approaches are insufficient to achieve timely TMDL implementation, exercise enforcement authority, where appropriate, to secure the load reductions consistent with the reasonable assurance provided in the TMDL.

EPA remains committed to assisting Washington with its efforts to reduce nonpoint sources of pollution, including:

- Convening discussions between the tribes and Ecology to identify specific projects and priorities aimed at addressing nonpoint source pollution impacts to treaty-protected resources, including a discussion of the State's regulatory and non-regulatory authorities;
- Providing technical assistance and identifying available funding to support water quality improvements, climate resiliency and salmon recovery; and
- Continuing active engagement in the current process in which state and Federal agencies work together to provide clear, consistent messaging regarding the application of the various riparian buffer width recommendations presented in the Voluntary Clean Water Guidance, including the scientific bases and decision-making processes for the implementation of alternatives.

EPA recognizes that the challenges the State is working to address through its nonpoint source program are exacerbated by warming water temperatures due to many forces, including climate change. EPA strongly recommends the State look for ways to direct new federal and state climate related resources to fund tree planting and other riparian improvement activities in temperature impaired watersheds. Through the new Climate Resilient Riparian Systems Lead Cooperative Agreement with Ecology, EPA can provide technical assistance to speed implementation of temperature TMDL plans such as the *Lower Skagit River Tributaries Temperature Total Maximum Daily Load Study*.[2] EPA will continue to work with the State to accelerate efforts to address nonpoint source pollution, especially temperature.

[2] https://apps.ecology.wa.gov/publications/documents/0810020.pdf

EPA is committed to working with Washington state agencies, tribes, landowners and others to restore impaired waters and improve water quality throughout Washington. EPA intends to help facilitate discussions between the tribes and the State regarding the 2025 Plan update. During government-to-government consultations and engagement with western Washington tribes, EPA received input regarding temperature TMDLs, minimum riparian habitat standard along all salmon streams, revisions to the *Voluntary Clean Water Guidance for Agriculture: Chapter 12 – Riparian Areas and Surface Water Protection* BMPs, and tribal engagement. EPA would like to discuss the points raised during follow up discussions with Ecology and the tribes on the 2025 Plan update.

In addition, EPA will track Washington's progress in implementing its NPS program and goals. EPA acknowledges these efforts are not without challenges and require long-term commitments, funding and staffing resources, as well as strong tribal, community and stakeholder partnerships to secure durable solutions for nonpoint source water quality problems. Agency staff will continue to work in partnership with Washington to ensure program activities and projects supported directly through EPA's CWA section 319 grant funding are leveraged to further nonpoint source reduction goals.

Please do not hesitate to contact me at (206) 553-0171, or have your staff contact Michelle Wilcox, the Washington NPS Coordinator, at wilcox.michelle@epa.gov or (360) 753-9469, if you have any questions regarding our review.

Sincerely,

HANH SHAW Digitally signed by HANH SHAW Date: 2023.08.14 19:01:18 -07'00'

Hanh Shaw, Manager
Standards, Assessment and Watersheds
Management Branch

Enclosure

cc (via electronic transmission):
Melissa Gildersleeve, Section Manager, Water Quality Program, Ecology
Ben Rau, Unit Manager, Watershed Planning, Ecology

Enclosure

EPA's Evaluation of Washington's Nonpoint Source Program Updates 2022-2025

August 14, 2023

Regulatory Background

In 1987, Congress enacted the Clean Water Act section 319 nonpoint source management program to incentivize states and local governments to control nonpoint sources of pollution by providing federal grant funding to assist with program implementation. Section 319, therefore, did not establish a federal nonpoint source regulatory program, but rather an administrative grant program to encourage state efforts to address nonpoint sources of pollution through the provision of federal funding. To this end, section 319 directed that each state prepares and submits to EPA for approval a nonpoint source management program that such state proposed to implement in the first four fiscal years after submission. Each state program must identify best management practices (BMPs) to reduce nonpoint source pollution, identify the state and/or local programs and authorities (both regulatory and non-regulatory) to achieve implementation of BMPs, and set forth a schedule containing annual implementation milestones. Once EPA approves a state's nonpoint source management program submission the state is eligible to apply for Section 319 grants to assist with program implementation.

In 1996, EPA issued grants guidance encouraging states with approved programs to review and update their programs, as necessary, and to continue establishing short-term and long-term goals and strategies to control nonpoint source pollution.[3] The 1996 guidance envisioned a "feedback loop" whereby each state would review, evaluate, and revise its management program at least every five years. Because CWA section 319 does not require states to update their management programs, EPA's subsequent grants guidance sought to encourage the practice by providing enhanced benefit status to states with updated programs.[4]

Furthermore, EPA has a statutory obligation under section 319(h)(8) to determine that states make satisfactory progress in meeting the schedule of relevant annual milestones specified in their NPS management programs and is prohibited from awarding grants under section 319(h) in the absence of such a determination. NPS management programs should be updated and kept current – so that program objectives and milestones are relevant for each grant period. Having an updated NPS management program is essential to address nonpoint pollution and therefore an important foundation for a finding of satisfactory progress. As part of EPA's CWA section 319 guidance, EPA, with state input, developed the *Key Components of an Effective State Nonpoint Source Management Program* within

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3 Nonpoint Source Program and Grant Guidance for Fiscal Year 1997 and Future Years (May 1996), p. 8, available at https://www.epa.gov/nps/319-grant-historic-guidance

4 Process For Approval of Upgraded State and Territorial Nonpoint Source Management Programs and Formal Recognition of Enhanced Benefits Status, Jan 7, 1999, p. 3, available at https://www.epa.gov/nps/319-grant-historic-guidance

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EPA's 2014 *Nonpoint Source Programs and Grants Guidelines for States and Territories*[5]. EPA's guidelines contain a description of the key components that characterize an effective state nonpoint source management program. EPA encourages states to refer to these key components during review and update of their programs. States then submit their updated programs to EPA for review and action.

Washington's Nonpoint Source Program

The Washington Department of Ecology (Ecology) is the lead state agency responsible for developing and implementing *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution* (Plan). Following enactment of CWA section 319, Ecology developed and submitted a nonpoint source management program for Washington State (NPS program), which EPA approved in 1989. Washington's NPS program submission identified BMPs associated with land uses including agriculture, forestry, construction, resource extraction and land disposal, as well as other source categories of nonpoint pollution such as stormwater runoff. The submission also identified existing statewide programs and authorities, both regulatory and nonregulatory, and regional and local programs to be used for implementation of BMPs.

Consistent with EPA's section 319 grants guidance, Ecology submitted updates to Washington's NPS program in 2000, 2005, 2015 and, most recently, in December 2022. In addition to submitting program updates, EPA has continually determined that Washington is making satisfactory progress in meeting its schedule for program implementation and the State has continued to receive section 319 grant funding to assist with implementation of its program. *See* 33 U.S.C. § 1329(h)(8).

EPA reviewed the December 2022 update to *Washington's Water Quality Management Plan to Control Nonpoint Source of Pollution* (2022 Plan) during the public comment period on the draft plan held by Ecology from December 1 to December 23, 2022. Ecology received comment letters from 23 separate individuals and organizations and subsequently made changes to the draft as described in Appendix L of the 2022 Plan, submitted to EPA for review on December 30, 2022. EPA understands that Ecology is conducting a comprehensive review of Washington's NPS program and will submit the next update to EPA by December 31, 2025.

Ecology referred to EPA's 2014 *Nonpoint Source Programs and Grant Guidelines for States and Territories* to ensure the Plan addressed the key components of an effective program. In addition to addressing the key components, Ecology also included:

- Updates to Washington's Forest Practices Program.
- References to new state laws addressing climate change (the Climate Commitment Act) and environmental justice (i.e., the Healthy Environment for All Act).
- Updates to a variety of state efforts and programs such as the No Discharge Zone, the Puget Sound Nutrient Source Reduction Project, and the Dairy Nutrient Management Program.
- Four chapters of the Washington's Voluntary Clean Water Guidance for Agriculture, with the fifth chapter submitted June 2023, and the remaining chapters to be included in the 2025 update.

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3 *Nonpoint Source Program and Grants Guidelines for States and Territories, Appendix A,* EPA, April 12, 2013 (also known as 319 guidance), available at https://www.epa.gov/sites/default/files/2015-09/documents/319-guidelines-fy14.pdf

- Identification of certain BMPs and measures which will be undertaken to reduce pollutant loadings resulting from each category, subcategory, or nonpoint source, taking into account the impact of the practice on ground water quality in accordance with 33 U.S.C. § 1329(b)(2)(A).
- A certification from the attorney general that Washington's laws provide adequate authority to implement such management programs in accordance with 33 U.S.C. § 1329(b)(2)(D), and sources of federal and non-federal assistance including funding will be available each fiscal year to support implementation of practices and measures in accordance with 33 U.S.C. § 1329(b)(2)(E).

EPA reviewed public comments and referred to applicable CWA 319 grant guidelines as part of its evaluation process. EPA has determined that Ecology's 2022 Plan is consistent with the key components for effective state nonpoint source management programs, as discussed in further detail below.

Key Component 1

The state program contains explicit short- and long-term goals, objectives, and strategies to restore and protect surface water and ground water, as appropriate.

Guidance

The state's long-term goals reflect a strategically focused state NPS management program designed to achieve and maintain water quality standards and to maximize water quality benefits. The shorter-term objectives consist of activities, with annual milestones, designed to demonstrate reasonable progress toward accomplishing long-term goals as expeditiously as possible. Since the NPS management program is a longer-term planning document, the annual milestones may be more general than are expected in an annual section 319 grant workplan but are specific enough for the state to track progress and for EPA to determine satisfactory progress in accordance with section 319(h)(8). Annual milestones in a state's NPS management program describe outcomes and key actions expected each year, (e.g., delivering a certain number of WQ-10 success stories or implementing projects in a certain number of high priority impaired watersheds). The state program includes objectives that address nonpoint sources of surface water and ground water pollution as appropriate (including sources of drinking water) in alignment with the goals of the Clean Water Act. The objectives include both implementation steps and how results will be tracked (e.g., water quality improvements or load reductions).

The state program includes long-term goals and shorter-term (e.g., three- to five-year) objectives that are well integrated with other key environmental and natural resource programs, such as those described under component #3. State program goals and objectives are periodically revised as necessary to reflect progress or problems encountered, strategies to make progress towards achieving the goals, and indicators to measure progress.

Location in Washington's 2022 Plan

Chapter 3: *Strategies for Addressing Nonpoint Source Pollution* and Chapter 9: *Goals and Strategies*

Evaluation

Goals, Objectives and Strategies

Washington's 2022 Plan states:

The NPS plan aims to protect public health and restore our state's waters by setting clear goals and objectives. Ecology's strategy to address NPS pollution focuses on cleaning up impaired watersheds, completing watershed evaluations to identify NPS pollution issues, and implementing suites of best management practices (BMPs) to address identified pollution sources and ensure compliance with the WQ Standards.[6]

Ecology's goals, objectives and strategies align with EPA's section 319 guidelines and the overall intent of the program. Chapter 3 of the 2022 Plan establishes implementation strategies by program area (TMDLs, section 319, CWSRF, STI, Nutrient Trading, Forestry, etc.), while Chapter 9 describes actions with milestones to achieve these goals. These milestones are implemented, in part, through work identified in Ecology's biennial grant work plans submitted to EPA. The 2022 Plan includes initiatives for addressing pollution in the Puget Sound, such as nutrient trading. Many of the goals have interim targets that establish milestones for the program. Ecology has and continues to invest efforts and resources into the development and completion of the Voluntary Clean Water Guidance for Agriculture.

The 2022 Plan goals, objectives, and strategies covering NPS programs require collaboration with federal, state and local partners, including tribes. For example, Chapter 9, Goal 3: Develop and Strengthen Partnerships, includes measurable milestones for strengthening relationships with tribes. Ecology developed actions that are measurable to reflect progress and problems encountered to ensure that nonpoint source pollution is being addressed. Ecology employs a multifaceted approach of education, outreach, technical assistance, financial incentives and enforcement actions when necessary to address nonpoint source pollution.[7] *See* RCW 90.48.120; WAC 173-201A-510; *Lemire v. Dep't. of* Ecology, 309 P.3d 395 (2013). Overall, the 2022 Plan allows for the tracking and measuring of progress. However, EPA recommends during the 2025 Plan update that Ecology provides more specific, measurable, achievable, relevant, and time-bound milestones to ensure goals are clear.

EPA Determination
EPA has determined that this component has been adequately addressed in the 2022 Plan.

Key Component 2

The state strengthens its working partnerships and linkages to appropriate state, interstate, tribal, regional, and local entities (including conservation districts), private sector groups, citizen groups, and federal agencies.

Guidance

The state uses a variety of formal and informal mechanisms to form and sustain these partnerships. Examples include memoranda of agreement, letters of support, cooperative projects, sharing and combining of funds, and meetings to share information and ideas.

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[6] *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution,* p. 38, Washington Department of Ecology, January 2023. https://apps.ecology.wa.gov/publications/documents/2210025.pdf

[7] *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution, Appendix B, Washington Department of Ecology, January 2023.* https://apps.ecology.wa.gov/publications/documents/2210025.pdf

The state NPS lead agency works collaboratively with other key state and local NPS entities in the coordinated implementation of NPS control measures in high priority watersheds. Interagency collaborative teams, NPS task forces, and representative advisory groups can be effective mechanisms for accomplishing these linkages, as can more informal but ongoing program coordination and outreach efforts. The state works to ensure that its local partners and grantees have the capacity to effectively carry out watershed implementation projects funded to support its NPS management program.

Further, the state seeks public involvement from local, regional, state, interstate, tribal and federal agencies, and public interest groups, industries, academic institutions, private landowners and producers, concerned citizens and others as appropriate, to comment on significant proposed program changes. This involvement helps ensure that environmental objectives are well integrated with those for economic stability and other social and cultural goals.

Location in Washington's 2022 Plan

Chapter 4 *Water Quality Partnerships*

Evaluation

Partnerships

Chapter 4 of the 2022 Plan identifies multiple partners involved in implementation: Washington Department of Ecology; the Washington Department of Agriculture (WSDA); the Washington Department of Transportation, Washington Department of Natural Resources; the United States Forest Service (USFS); Natural Resource Conservation Service (NRCS); the Bureau of Land Management (BLM); Department of Energy (DOE); multiple Tribal Nations; Watershed Councils; among others. As part of its implementation, Washington has established memoranda of agreements (MOA) with the USFS and WSDA to meet Water Quality Standards (WQS). Many of the implementation activities being conducted involve partnerships between various agencies to accomplish the objectives and goals of the management strategy.

Public Involvement

Ecology involved the public during development of the 2022 Plan, Voluntary Clean Water Guidance for Agriculture, and other significant proposed program actions to ensure that environmental objectives are well integrated with those for economic stability and other social and cultural goals. For example, the 2022 Plan references Washington's Healthy Environment for All Act, which requires transparency and an inclusive public participation process to address environmental justice concerns. Furthermore, Washington coordinates with stakeholders through Washington's Agriculture and Water Quality Advisory Committee, Water Quality Partnership, and Water Quality Financial Assistance Council. Ecology's responses to public comments on the 2022 Plan can be found at https://ecology.wa.gov/Water-Shorelines/Water-quality/Runoff-pollution.

EPA Determination

EPA has determined that this component has been adequately addressed in the 2022 Plan. EPA is also aware that many tribes raised concerns regarding timely, effective and meaningful engagement, as well as a short public comment period over the holiday season for the 2022 Plan. Please refer to the approval letter regarding EPA's recommended actions to improve engagement and collaboration with tribes, program partners, stakeholders and the public during the process to update the 2025 Plan.

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Key Component 3

The state uses a combination of statewide programs and on-the-ground projects to achieve water quality benefits; efforts are well integrated with other relevant state and federal programs.

Guidance

The state has the flexibility to design its NPS management program in a manner that is best suited to achieve and maintain water quality standards. The state may achieve water quality results through a combination of watershed approaches and statewide programs, including regulatory authorities, as appropriate. The state NPS management program emphasizes a watershed management approach and includes an explanation of the state's approach to prioritizing waters and watersheds to achieve water quality restoration and protection.

The state NPS management program is well integrated with other relevant programs to restore and protect water quality, aligning priority setting processes and resources to increase efficiency and environmental results. These include the following programs, as applicable:

- *Total Maximum Daily Loads (TMDLs);*
- *Clean Water State Revolving Fund (CWSRF);*
- *U.S. Department of Agriculture (USDA) farm bill conservation programs;*
- *state agricultural conservation;*
- *state nutrient framework or strategy source water protection;*
- *point sources (including stormwater, confined animal feeding operations, and enforcement of permitted facilities);*
- *ground water;*
- *etc.*

Because of the significant resources potentially available through USDA conservation programs, the state makes a strong sustained effort to coordinate and leverage with USDA NRCS. Similarly, a state NPS management program is well integrated and clearly identifies processes to incorporate some of the significant resources of the CWSRF loan program for eligible nonpoint source activities.

Where applicable, the state NPS management program explains how NPS projects fit into the state's prioritization scheme for CWSRF funding, and describes state efforts to increase the use of the state CWSRF for the NPS management program. If there are barriers to prioritization of NPS projects, the state NPS management program describes efforts to coordinate with the CWSRF program and potential future steps to encourage NPS projects are considered.

If, in reviewing federal programs, the state identifies federal lands and activities that are not managed consistently with state nonpoint source program objectives, the state may seek EPA assistance to help resolve issues at the federal agency level. Federal programs subject to review by the state include the land management programs of the Bureau of Land Management and the U.S. Forest Service, USDA's conservation programs, and the U.S. Army Corps of Engineers waterway programs, as well as development projects and financial assistance programs that are, or may be, inconsistent with the state's NPS management program.

As a federal agency, EPA has a role to play in support of the state's NPS management program by working with other federal agencies to enhance their understanding of the significance of nonpoint

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source pollution and of the need to work cooperatively with the state to solve nonpoint source problems. Where appropriate, EPA will assist in resolving particular issues that arise between the state and federal agencies with respect to federal consistency with the state NPS management program. As EPA becomes aware of these issues, EPA works at a national level to improve consistency among federal programs.

Location in Washington's 2022 Plan

Multiple Chapters

Evaluation

Integrated Statewide Programs

Chapter 4 identifies the state's programs that are collectively the Washington's Nonpoint Source Program, while other chapters of the 2022 Plan describe in part the framework and integration of financial, technical and stakeholder initiatives to restore and protect water quality. The 2022 Plan discusses several different types of prioritizations, including projects, regulatory and nonregulatory actions, watersheds management, and programmatic areas that together increase efficiency and achieve environmental results. These programs include urban storm water management, habitat restoration/protection, high priority watersheds, U.S. Farm Bill programs, TMDLs, monitoring and many others. Appendix H highlights how Washington has integrated water quality protection actions into the timber harvest regulatory framework.

Watershed Management Approach

Ecology implements a variety of nonpoint source pollution control plans to address water quality improvements (ex: TMDLs, WQMPs, TMDL implementation plans, agriculture and forestry guidance, estuary programs, etc.) and utilizes enforcement authority when necessary to address water quality issues. A summary of Washington's NPS enforcement actions under the various programs that comprise its NPS program and in certain priority watersheds is included in the state's annual report submitted pursuant to CWA section 319(h). These approaches may address water quality at the watershed scale, within a specific jurisdiction or regional area, or actions needed to control or prevent pollution from a specific nonpoint pollutant source or sector.

Prioritization

Chapter 3 of the 2022 Plan discusses Ecology's main priorities for its NPS program, which include: 1) to correct known water quality impairments from nonpoint source pollution, and 2) to support projects that protect threatened and high-quality waters from present and future nonpoint source pollution impacts. Washington maximizes its restoration and protection resources by applying a watershed evaluation process and focusing on high priority watersheds. These also account for other layers of prioritization such as the Puget Sound Action Agenda priorities, salmon recovery priorities, climate change and environmental justice.

Leveraging Resources and Funding Sources

Chapter 5 of the 2022 Plan discusses multiple funding sources and incentive programs available to support implementation of practices/measures to address nonpoint source pollution. For example, the U.S. Department of Agriculture has numerous funding programs including: the Conservation Reserve Program, Conservation Reserve Enhancement Program, Environmental Quality Incentive Program, and CLEAR 30. The state also leverages Salmon Recovery Funds, Direct Implementation Funds, Coastal Recovery Grants, and CWSRF to support nonpoint source control efforts. Although the 2022 Plan

provides updates on point source activities, such as the Nutrient General Permit for the Puget Sound, the 2022 Plan focuses on projects that do not implement requirements under NPDES permits.

Federal/State Coordination and Approaches
To ensure consistency between management of forested lands and objectives identified in the 2022 Plan, a MOA between Ecology and the USFS was updated to discuss strategies for meeting state and federal water quality rules/regulations that manage and control point and nonpoint source pollution sources from USFS managed lands within the Washington. EPA encourages a similar MOA between Washington and NRCS to increase implementable actions identified in Washington's Voluntary Clean Water Guidance for Agriculture. The Bureau of Land Management (BLM) and Bonneville Power Administration (BPA) also manages land in Washington and can be sources of localized nonpoint source pollution from grazing and offroad vehicles. The 2022 Plan identified these areas as needing better practices to protect water, but currently the BLM and BPA have not entered into a MOA with Ecology to address these water quality concerns.

Under section 319 of the CWA, Washington is responsible for the development and implementation of its NPS program. EPA's role under the Act is to support Washington's implementation of the activities identified in the 2022 Plan. EPA accomplishes this through the provision of CWA section 319 grant funding to assist with implementation of watershed projects and fund state program staff to administer Section 319 grants, develop program policies and guidance, and provide technical assistance.

EPA Determination
EPA has determined that this component has been addressed in the 2022 Plan.

Key Component 4

The state program describes how resources will be allocated between (a) abating known water quality impairments from NPS pollution and (b) protecting threatened and high-quality waters from significant threats caused by present and future NPS impacts.

Guidance

The program describes its approach to addressing the twin demands of remedying waters that the state has identified as impaired by NPS pollution and preventing new water quality problems from present and reasonably foreseeable future NPS impacts, especially for waters which currently meet water quality standards.

With limited resources, the state will likely need to make choices about the relative emphasis on restoring impaired waters and protecting high quality waters. The state's program describes how it will approach setting priorities and aligning resources between these two areas of emphasis based on their water quality challenges and circumstances.

Location in Washington's 2022 Plan

Chapter 3, multiple chapters

Evaluation

Because of limited resources, Ecology has identified as a top priority to correct known water quality impairments from nonpoint source pollution and the second priority to support projects that protect threatened and high-quality waters from present and future nonpoint source pollution impacts. Furthermore, Ecology's implementation of the state's antidegradation policy, will help protect and

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maintain existing uses and threatened and high-priority waters. Overall, the 2022 Plan focuses on watershed clean-up programs and implementation directed towards restoring impaired waters using a watershed evaluation process (see p.46). The 2022 Plan also includes references to the many other programs addressing sources of nonpoint pollution; such as, permits and regulations for urban, suburban development and stormwater; the Forest Practices Rules and Adaptive Management Program; the Dairy Nutrient Management Program, and local ordinances and regulations.

EPA Determination
EPA has determined that this component has been addressed in the 2022 Plan.

Key Component 5

The state program identifies waters and watersheds impaired by NPS pollution as well as priority unimpaired waters for protection. The state establishes a process to assign priority and to progressively address identified watersheds by conducting more detailed watershed assessments, developing watershed-based plans and implementing the plans.

Guidance

The state identifies waters impaired by nonpoint source pollution based on currently available information (e.g., in reports under sections 305(b), 319(a), 303(d), 314(a), and 320), and revises its list periodically as more up-to-date assessment information becomes available. As feasible, the state also identifies important unimpaired waters that are threatened or otherwise at risk from nonpoint source pollution.

In addition, the state identifies the primary categories and subcategories causing the water quality impairments, threats, and risks across the state. At regular intervals the state updates the identification of waters impaired or threatened by NPS pollution preferably as part of a single comprehensive state water quality assessment which integrates reports required by the Clean Water Act. The state establishes a process to assign priority and to progressively address identified waters and watersheds by conducting more detailed watershed assessments, developing watershed-based plans, and implementing the plans. Factors used by the state to assign priority to waters and watersheds may include a variety of considerations, for example:

- *human health considerations including source water protection for drinking water;*
- *ecosystem integrity, including ecological risk and stressors;*
- *beneficial uses of the water;*
- *value of the watershed or groundwater area to the public;*
- *vulnerability of surface or groundwater to additional environmental degradation;*
- *likelihood of achieving demonstrable environmental results;*
- *degree of understanding of the causes of impairment and solutions capable of restoring the water;*
- *etc.*

The state links its prioritization and implementation strategy to other programs and efforts such as those listed under component #3. In establishing priorities for groundwater activities, the state considers wellhead protection areas, ground water recharge areas, and zones of significant groundwater/surface water interaction, including drinking water sources.

There are different approaches for prioritizing waters for restoration and protection and EPA offers several tools to assist. For example, EPA's Recovery Potential Screening Tool, available at www.epa.gov/recoverypotential, is useful for comparing restorability of impaired waters across various watersheds. Also, the Nitrogen and Phosphorus Pollution Data Access Tool (NPDAT), at www.epa.gov/nutrientpollution/npdat, is a GIS-based tool designed to assist in identifying priority watersheds to address nutrient pollution.

Location in Washington's 2022 Plan

Chapter 7 *Monitoring*, Chapter 8 *Groundwater*, Chapter 9 *Goals and Strategies*, and Appendix A *Assessment of Nonpoint Pollution in Washington State*

Evaluation

Assessment, Plan Development and Implementation Process

Appendix A applies a thorough, multi-faceted approach to identifying waters and watersheds experiencing nonpoint source impairments. The appendix includes many analyses that range from broad statewide statistics to more detailed identification of threats or impairments. The 2022 Plan provides thorough explanations of Washington's water programs such as WQS, integrated report and subsequent TMDL development, among others. Ecology uses TMDLs and associated implementation plans that align with EPA's nine elements of watershed-based plans (WBP).

Prioritization Process and Identification

As discussed previously in Key Component #3, the 2022 Plan describes many priority actions, programmatic areas, products and watersheds. Ecology's primary strategy for addressing nonpoint source pollution is implementing watershed cleanup projects. Ecology focuses on high priority watersheds and engages in watershed evaluations and pollutant identification. The 2022 Plan describes many criteria that are considered when determining how to focus resources, while not detailing specifics on how the different criteria will be weighed. This is a reasonable approach given the highly variable geography (agriculture, urban, forest) that would influence how the criteria are considered and is more practically addressed during TMDL development.

Funding Prioritization Process

Chapter 3 discusses how Ecology administers the nonpoint source funds. The program has eligibility requirements and limitations. All projects are ranked using a standard set of criteria. Projects must have well-defined scopes of work with goals, objectives, timelines, measurable outcomes, and be ready to proceed. Projects must support the achievement of clean water objectives and meet water quality standards.

EPA Determination

EPA has determined that this component has been adequately addressed in the 2022 Plan.

Key Component 6

The state implements all program components required by section 319(b) of the Clean Water Act and establishes strategic approaches and adaptive management to achieve and maintain water quality standards as expeditiously as practicable. The state reviews and upgrades program components as appropriate. The state program includes a mix of regulatory, non-regulatory, financial and technical assistance, as needed.

Guidance

Under section 319(b) state NPS management programs include all of the following components:

(i) An identification of measures (i.e., systems of practices) that will be used to control NPS pollution, focusing on those measures which the state believes will be most effective in achieving and maintaining water quality standards. These measures may be individually identified or presented in manuals or compendiums, provided that they are specific and are related to the category or subcategory of nonpoint sources. They may also be identified as part of a watershed approach towards achieving water quality standards, whether locally, within a watershed, or statewide;

(ii) An identification of the key programs to achieve implementation of the measures, including, as appropriate, nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects. The state is free to decide the best approaches for solving the problems that it identifies under key component #5 above. These approaches may include one or all of the following:

- ***watershed or water quality-based approaches aimed at meeting water quality standards directly;***
- ***iterative, technology-based approaches based on best management practices or measures, applied on either a categorical or site-specific basis; or***
- ***an appropriate mix of these approaches.***

(iii) A description of the processes used to coordinate and, where appropriate, integrate the various programs used to implement NPS pollution controls in the state;

(iv) A schedule with goals, objectives, and annual milestones for implementation at the earliest practicable date: legal authorities to implement the program; available resources; and institutional relationships;

(v) Sources of funding from federal (other than section 319), state, local, and private sources;

(vi) Federal land management programs, development projects and financial assistance programs; and

(vii) A description of monitoring and other evaluation programs that the state will conduct to help determine short- and long-term NPS management program effectiveness.

Location in Washington's 2022 Plan

In multiple chapters and appendices.

Evaluation

(i) System of practices that will control nonpoint source pollution

The 2022 Plan identifies numerous documents containing best management practices that can be suited for a variety of situation. For example, Appendices H, J & K contain many practices designed to reduce NPS pollution. Some of these practices have been updated in the 2022 Plan and are projected to be refined further by 2025. The 2022 Plan also includes among its future goals updates and additions to best management practices, such as guidance to the agricultural community.

(ii) Key programs

Chapters 2-4 identify many regulatory and nonregulatory programs to address nonpoint source pollution. The 2022 Plan includes new or updated programs involving climate change, environmental justice, pet waste, implementation tracking, and the Puget Sound.

(iii) Coordination

Chapter 4 contains descriptions of how Ecology coordinates with federal, state, tribal and local partners on the various programs that comprise the NPS program. For example, the 2022 Plan includes coordination on environmental justice, agriculture, and an updated MOA with the U.S. Forest Service.

(iv) Schedule and legal authorities

Chapter 2 and Appendix B discusses the legal authorities of Washington. Chapter 9 establishes a schedule for achieving goals and strategies. The 2022 Plan includes new information about Ecology's ability to regulate NPS pollution based on an opinion from the Washington Supreme Court. *Lemire v. Dep't of Ecology*, 178 Wn.2d 227, 240, 309 P.3d 395 (2013) (the plain language of RCW 90.48.080 gives Ecology "the authority to regulate nonpoint source pollutant discharge."). The State Supreme Court's decision further explained that Ecology has the authority to take enforcement action for actual violations but also when there is a substantial potential to violate, and that Ecology has the authority to require implementation of prescribed BMPs. *Id.* 178 Wn.2d at 233. In subsequent decisions, both the Pollution Control Hearings Board and the Court of Appeals for Washington State have reaffirmed Ecology's authority and upheld enforcement actions against nonpoint source polluters. Also, the 2022 Plan includes updates on the federal Farm Bill and adoption of No Discharge Zone rules for Puget Sound.

(v) Sources of funding

Chapter 5 describes in detail sources of funding and resources available for addressing nonpoint source pollution. The 2022 Plan includes updates on the Family Forest Fish Passage Program and U.S. Department of Agriculture funding, such as the new CLEAR 30 program.

(vi) Federal land management

Chapter 4 addresses federal land management, including updates on successes with U.S. Forest Service MOA with Ecology leading to repairs of deteriorating forest roads. The 2022 Plan also describes the challenges facing the Bureau of Land Management and Bonneville Power Association to manage damage caused by off-road vehicles.

(vii) Monitoring and evaluation

Chapter 7 addresses monitoring for program effectiveness. The 2022 Plan includes updates on the 2018 Water Quality Assessment and updates to Ecology's water quality databases, as well as refinements to Ecology's approach to monitoring freshwater, marine waters, sediments and ground water. Ecology also included updates to the effectiveness monitoring program for the Forest Practices Rules.

EPA Determination

EPA has determined that this component has been adequately addressed in the 2022 Plan.

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Key Component 7

The state manages and implements its NPS management program efficiently and effectively, including necessary financial management.

Guidance

The state implements its program to solve its water quality problems as effectively and expeditiously as possible and makes satisfactory progress each year in meeting program goals. To help assure that priority water quality problems are addressed cost-effectively and in a timely manner, the state includes in its program a process for identifying priority problems and/or watersheds, and deploys resources in a timely fashion to address priorities, including any critical areas requiring treatment and protection within watersheds.

The state employs appropriate programmatic and financial systems that ensure section 319 dollars are used efficiently and consistent with its legal obligations, and generally manages all section 319 funds to maximize water quality benefits. The state ensures that section 319 funds complement and leverage funds available for technical and financial assistance from other federal sources and agencies.

Location in Washington's 2022 Plan

Chapter 3 *Strategies for Addressing Nonpoint Source Pollution*, Chapter 4 *Water Quality Partnerships*, and Chapter 5 *Financial Incentives Program*

Evaluation

Program and Financial Management

Ecology has a history of effectively managing 319 funds and leveraging other resources to support watershed improvement efforts. By utilizing a watershed assessment process, Ecology prioritizes watersheds and projects to focus resources on the highest areas of need. Ecology also keeps track of the results of implementation to detect patterns and makes the necessary adjustments to improve the program. Because Ecology pools multiple funding sources to address water quality needs, Ecology evaluates each project for eligibility within different fund restrictions and readiness given the sunset dates of different fund sources. Some of these funding programs also have strategic plans to target funds to certain types of projects, such as urban storm water or shellfish bed protections. The 2022 Plan also includes other priorities such as climate change and environmental justice as factors for prioritizing resources.

Funding Sources Used for Plan Implementation

Ecology's Water Quality Combined Assistance Program holds an annual competition for funds combined from a variety of sources, such as federal resources like the State Revolving Fund and 319 Grants and state resources like the Centennial Clean Water grants. This is a very efficient approach to funding nonpoint source programs because applicants access a variety of funding resources with one application process, instead of having to compete each funding source individually. Other updated Washington funding sources include the Forestry Riparian Easement Program and Family Forest Fish Passage Program. The 2022 Plan also includes many updates related to U.S. Department of Agriculture funding, which is an important source of funding for implementation of conservation on farmland and may contribute to the implementation of certain practices listed in the Voluntary Clean Water Guidance for Agriculture.

EPA Determination

EPA has determined that this component has been adequately addressed in the 2022 Plan.

Key Component 8

The state reviews and evaluates its NPS management program using environmental and functional measures of success and revises its NPS management program at least every five years.

Guidance

The state establishes appropriate measures of progress in meeting programmatic and water quality goals and objectives identified in key component #1 above. The state also describes a monitoring/evaluation strategy and a schedule to measure success in meeting those goals and objectives. The state integrates monitoring and evaluation strategies with ongoing federal natural resource inventories and monitoring programs.

The state NPS management program is reviewed and revised every five years. The revision is not necessarily a comprehensive update unless significant program changes warrant a complete revision; instead, an update targets the parts of the program that are out-of-date. At a minimum, this includes updating annual milestones and the schedule for program implementation, so that they remain current and oriented toward achieving water quality goals.

Location in Washington's 2022 Plan

Chapter 7 *Monitoring* and Chapter 9 *Goals and Strategies*

Evaluation

Five-Year WQMP Review and Revisions

This round of plan updates was made pending the completion of certain chapters of the Voluntary Clean Water Guidance. Those chapters informed updates to certain program functions, such as funding program guidelines, water quality cleanup plans, technical assistance, and education and outreach efforts within the NPS program plan. Meanwhile, Ecology provided interim milestones as part of their 2019 annual report submittal to EPA, *Year 2019 Report on Activities to Implement Washington State's Water Quality Management Plan to Control Nonpoint Source Pollution.*

EPA's review of the 2022 Plan submitted by Ecology was assessed in accordance with CWA 319 Grant Guidelines. Ecology's submittal included four chapters of the Voluntary Clean Water Guidance for Agriculture, outlining the state's recommended best management practices for agricultural producers to protect water quality. With respect to an implementation schedule, Chapter 9 of the 2022 Plan includes a table containing measurable outputs and specific milestones to track progress over the next five years. The state hosted informational webinars and took public comment on both the draft updates to the 2022 Plan and the Voluntary Clean Water Guidance chapters and responded to comments received, including Tribal input, and then submitted its final 2022 Plan to EPA. Appendix L of the WQMP provides a link to the Response to Comments. Comments and responses are included for the five documents: the four chapters of the Voluntary Clean Water Guidance and the WQMP. The Response to Comments document lists the organizations and individuals who provided comments, includes all comments received and Ecology's responses, and notes if a change was warranted to a certain document in response to a comment received.

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Regarding the short public comment period, while many were able to comment, EPA encourages Ecology to start engaging partners, tribes and the public earlier to allow for more time for meaningful engagement and input. Please see the approval letter regarding EPA's recommendations on improvements to meaningful engagement for the WQMP 2025 update.

This submittal package meets legal commitments in a stipulated settlement agreement. *Northwest Environmental Advocates vs. U.S. Department of Commerce et al.*, Case No. 2:16-cv-01866-JCC (W.D. Wash.), Dkt. No. 175. The stipulated settlement requires that Washington submit another CWA section 319 Plan update to EPA no later than December 31, 2025, and that such update include the remaining chapters of the Voluntary Clean Water Guidance for Agriculture.

Progress Measures for Meeting Goals and Objectives

Under Chapter 9, Ecology establishes measures of progress in meeting programmatic and water quality goals and objectives identified in key component #1 above. Ecology has five overarching goals and multiple strategies within each goal. Some of these strategies include milestones with methods for measuring progress and in many cases includes interim targets to be achieved before the next iteration of the WQMP. Ecology references the various databases it uses to track information, such as Ecology's Nonpoint Collector Application and EPA's Grants Reporting and Tracking System. The 2022 Plan emphasizes adaptive management to address nonpoint source pollution and utilizes technology, such as the previously mentioned Nonpoint Collector Application's interactive mapping component, to streamline work and efficiently use resources to make improvements to water quality.

Monitoring and Evaluation Strategy

The 2022 Plan includes an overall description of its monitoring program in Chapter 7 and how it supports the nonpoint program. The monitoring program is used to identify waters of the state that have impairments, help connect impairments to nonpoint sources of pollution, help identify unimpaired waters, prioritize waters for implementation, and support effectiveness monitoring.

The 2022 Plan includes the most current Water Quality Assessment effort which was approved by EPA in 2022. It also includes updated monitoring information for certain parameters such as marine, shellfish, sediment, and ground water. Ecology also targets watersheds and aquifers that receive more monitoring and evaluation resources to better understand causes of pollution and effectiveness of actions. The 2022 Plan provides a list of the intensely monitored watersheds and aquifers.

EPA Determination

EPA has determined that this component has been adequately addressed in the 2022 Plan.