

Oregon Nonpoint Source Pollution Program 2013 Annual Report

As required by the Federal Clean Water Act

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State of Oregon
Department of
Environmental
Quality



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Executive Summary

Background

This Nonpoint Source Pollution (NPS) program update report is 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 Oregon in general and the Oregon Department of Environmental Quality (DEQ) in particular regarding the administration of the State's NPS Program during the period January – December 2013. It should be noted that Oregon plans to revise the NPS Control Program Plan once EPA guidance becomes available.

For this year's Oregon NPS Program Annual Report, the U.S. Environmental Protection Agency (EPA), Region 10 staff provided assistance in the development of the **Oregon Nonpoint Source Pollution Program 2013 Annual Report**. This included providing assistance in the development of the 2013 review of 319-grant work plans and processing Oregon's grant and GRTS technical assistance and training to develop pollutant load reduction estimates of the 2013 funded projects.

General Description of Report

Following EPA Section 319 Grant reporting guidelines, the report contains the following required elements:

- Description of Oregon's NPS Program.
- Description of Oregon's Baseline Regulatory Statutes and Non-Regulatory NPS Programs.
- Program Directions and Priorities in 2013.
- Nonpoint Source Management and Administration, Including a Description of Oregon's Performance Partnership Agreement (PPA) and Use of Incremental and Base Funds.
- Identification of the 2013 Project Implementation Activities, which Included the Following Programs/Projects:
 - Total Maximum Daily Loads
 - New Water Quality Standards
 - Watershed Plan Development
 - NPS Projects Funding by Basin/Subbasin
 - Toxic Chemicals
 - Water Quality Issues on Agricultural Lands
 - Pesticide Management
 - Water Quality Issues on State and Private Forest Lands
 - Water Quality Issues on Federal Forest Lands
 - Clean Water State Revolving Fund
 - Drinking Water Protection in Oregon
 - Coastal Zone NPS Program
 - Monitoring and Data
 - Groundwater Management Areas (GWMAs)
- Progress of 319 Grant Funded Projects, including Grant Performance Report Summary, Description of Geographic and Programmatic Priorities for 2013 319 Funding, and progress of 2013 – 319-Grant Funded Projects and Categories.
- Calculated Nitrogen, Phosphorus, and Sedimentation-Siltation Pollutant Load Reduction Estimates of 2013 Funded Projects.
- Description of DEQ's Watershed-Based Plans.
- Success Stories/Environmental Improvement (WQ-10) and (SP-12) Projects and Other.

Major Accomplishments

Of the many nonpoint source activities accomplished every year by DEQ, the following is the list of the major accomplishments:

- Oregon's total 2013 319-Grant allocation of \$2,172,000 was distributed as follows: \$905,000 or approximately 41.7% was directed to the twenty-six (26) 319 projects grant and the remainder, \$1,267,000 or approximately 58.3 %, was directed to the PPA grant to fund 9.45 DEQ staff positions for the NPS program.
- The \$905,000 total funds for 319 funded projects in 2013 were divided in four areas of emphasis, as follows: BMP Implementation (22.4%), TMDL Implementation (57.2%), Pesticide Stewardship Program (11.1%), and Information and Education (9.3%). Note that “BMP Implementation” did not include implementation of BMPs identified in a TMDL Implementation Plan and “TMDL Implementation” primarily focused on effectiveness monitoring.
- DEQ completed pollutant load reductions estimates for the total 2013 load reduction estimates by pollutant for two (2) 319 funded projects are as follows: 6,095 Pounds/Year Nitrogen Reduction; 2,136 Pounds/Year Phosphorous Reduction; and 1,295 Tons/Year Sedimentation-Siltation Reduction. Load reduction estimates were included in the EPA database GRTS (Grants Reporting and Tracking System).
- In 2013, DEQ provided Clean Water State Revolving Fund loans totaling more than \$6 million to two nonpoint source projects. Central Oregon Irrigation District is piping a portion of their open canals to conserve water and improve water quality. The City of Ashland’s CWSRF funds are being used to restore riparian areas within the Bear Creek watershed.
- One success story was written for the Willamette River in its receipt of international reorganization for the water quality improvements accomplished by multi-agency and other stakeholder’s effort. No SP-12 or WQ-10 Project success stories were written for 2013.

Program Directions

DEQ continues to implement the NPS Program and direct funding into basins impaired by NPS pollution. DEQ is working on prioritizing the work by continuing to develop watershed plans and implementation of the watershed approach. It should be noted that Oregon plans to revise the NPS Management Program Plan once EPA guidance becomes available. In addition, DEQ began developing Implementation-Ready TMDLs, which would incorporate the use of the EPA’s key watershed planning components with the nine key NPS elements.

DEQ is committed to a continual improvement in coordination between the various DEQ Water Quality Programs including NPS, TMDLs, Integrated Report, Source Water Protection, Groundwater, Clean Water State Revolving Fund, and 319 Project Grants. DEQ has also been working with staff from the Oregon Water Enhancement Board (OWEB), Natural Resource Conservation Service (NRCS), and other funding entities to prioritize and coordinate our efforts to address nonpoint sources of pollution.

1. Introduction

1.1 General Description of Report

This NPS program update report is 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 Oregon in general and the Oregon Department of Environmental Quality (DEQ) in particular regarding the administration of the State's Nonpoint Source (NPS) Pollution Water Program.

The report covers an update on the NPS activities implemented by the State during the period January – December 2013. Like many other years in the Oregon program, this period was productive. As described below, Oregon is making progress toward meeting the substantial challenges presented by NPS water pollution.

1.2 Highlights

The State program continues to use innovative, cooperative, and community-based methods to improve water quality and enhance watersheds.

Some of the activities and accomplishments for 2013 were:

- Oregon's total 2013 319-Grant allocation of \$2,172,000 was distributed as follows: \$905,000 or approximately 41.7% was directed to the twenty-six (26) 319 projects grant and the remainder, \$1,267,000 or approximately 58.3 %, was directed to the PPA grant to fund 9.45 DEQ staff positions for the NPS program.
- The \$905,000 total 2013 funds for 2013 were divided in four areas of emphasis, as follows: BMP Implementation (22.4%), TMDL Implementation (57.2%), Pesticide Stewardship Program (11.1%), and Information and Education (9.3%). Note that “BMP Implementation” did not include implementation of BMPs identified in a TMDL Implementation Plan and “TMDL Implementation” primarily focused on effectiveness monitoring.
- For three (3) 319 funded projects, the total **2013** load reduction estimates by pollutant are as follows: **6,095 Pounds/Year Nitrogen Reduction, 2,136 Pounds/Year Phosphorous Reduction, and 1,297 Tons/Year Sedimentation-Siltation Reduction.** Load reduction estimates were included in the EPA database GRTS (Grants Reporting and Tracking System).
- The DEQ and Oregon Department of Forestry (ODF) RipStream project has completed the initial analysis to test whether current riparian protections on fish-bearing streams are adequate to meet water quality standards for temperature. The results of the RipStream project were presented to the BOF and the Board directed ODF to begin rulemaking to address the issue.
- The Clean Water State Revolving Fund (CWSRF) Program provided loans of \$6,190,411 towards two NPS water quality improvement projects.
- The following Water Quality Status/Action Plans are nearly completed: Clackamas and Sandy River Basin; South Coast Basin; and Powder/Burnt. In addition, DEQ has begun working on Water Quality Status/Action Plans for the following: Umatilla Basin; Tualatin Subbasin; and the Upper Willamette Area.

1.3 State of Oregon Water Quality Program

State programs to protect or improve Oregon's water quality date back to 1938. Oregon's point source permit program was the second approved state program in the Country (September 26, 1973). More recently, the state also adopted another landmark program: in 1996, the state adopted the Oregon Plan for Salmon and Watersheds to focus work on watershed restoration and recovery of endangered salmonid populations.

The water quality program's mission is to protect and improve Oregon's water quality. Protecting Oregon's rivers, streams, lakes, estuaries and groundwater quality keeps these waters safe for multiple beneficial uses such as

drinking water, fish and aquatic wildlife habitat, recreation and irrigation. This is accomplished by developing and implementing water quality standards and clean water plans, regulating wastewater treatment systems and industrial dischargers, collecting and evaluating water quality data, providing grants and technical assistance to reduce nonpoint pollution sources, and providing loans to communities to prevent or mitigate water pollution. The availability of clean and healthy water is critical to Oregon's environment and economy. In recent years, state and federal funding for DEQ's clean water work has declined – both in real dollars and in what those dollars buy.

The state water quality program can be divided into the ten interdependent program elements listed below:

1. Water quality standards that establish beneficial uses for the waterbody as well as maximum levels of pollutants that can be in the waterbody without adversely affecting the designated use.
2. Permits for point sources, including stormwater, discharging pollutants to waters of the state.
3. Water Quality 401-Certifications for hydroelectric projects, dredge, and fill activities.
4. NPS TMDLs specifically developed for forestry, agriculture, and urban activities.
5. Biennial assessment of State waters to identify those waters that are not meeting water quality standards.
6. Pretreatment, Sewage Sludge Management, and On-Site System programs to ensure that water quality is not compromised by other land-based activities.
7. Development of TMDLs, which are limits on pollution intended to bring rivers, lakes, and streams into compliance with water quality standards.
8. Cost-share grants and low interest loan programs to address municipal sewage treatment and disposal needs, and activities to reduce or eliminate nonpoint sources of pollution.
9. Information and education outreach activities to create awareness by the public about the importance of NPS pollution and its impact groundwater and surface water quality.
10. Facility or activity-specific compliance assessment, a pilot NPS effectiveness monitoring effort, technical assistance, and enforcement as warranted ensuring State water quality requirements are met.

The water quality program has an increased emphasis on the “watershed approach” as a way to better identify and address high priority water quality issues in a basin or region. The watershed approach combines the expertise of DEQ's 17 water quality sub-programs to produce basin-based assessments that are data-driven and contain quantitative elements that describe water quality conditions and include recommendations for actions that DEQ and others can take to improve water quality. DEQ uses these assessments to work with local stakeholders, such as communities, watershed councils and conservation districts, as well as local, state and federal agencies, to find smart solutions to local water quality issues. This effort aligns with EPA's national strategy to Improve Water Quality on a Watershed Basis in the 2012 National Program Manager's guidance.

DEQ's current Water Quality Program priorities include the following:

Working with state, local and national partners on water quality, water quantity and ecosystem protection.

DEQ is committed to developing and leveraging partnerships with other agencies and organizations to achieve desired environmental outcomes in the most cost-effective manner. Examples of this include many of the NPS Success Stories that resulted from the coordinated efforts of various agencies, communities, watershed councils and landowners. Water quality trading is another example, such as the City of Medford's wastewater permit, that relies upon the coordinated efforts of The Freshwater Trust and the Willamette Partnership to ensure compliance with permit requirements and costs half as much as a traditional, engineered approach. These types of partnerships are evident throughout this PPA, including several new or expanded initiatives such as the following:

- Development of the Implementation Ready Mid-Coast TMDLs requires a significantly higher level of stakeholder engagement to develop enforceable implementation plans that will be incorporated into the TMDLs.
- EPA directed the states in 2013 to conduct effectiveness monitoring using 319 funds in National Water Quality Initiative (NWQI) watersheds where the Natural Resources Conservation Service (NRCS) identified to improve water quality by focusing its investments. In 2013, EPA awarded technical assistance grant for Oregon to develop monitoring plan for Fifteenmile and Willow Creeks NWQI effectiveness monitoring projects. DEQ and its partners will be developing and implementing the effectiveness monitoring projects in those watersheds during 2014-2019.

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- Working with the Conservation Effectiveness Partnership in 2013, DEQ continued to meet with USDA-NRCS, Oregon Water Enhancement Board (OWEB), and ODA to evaluate the impacts of grant investments on water quality and watershed health. Although the partner agencies did not finalize the reports on two “pilot watersheds,” the Wilson River in Tillamook Bay and Wychus Creek along the Upper Deschutes River, they committed to work on NWQI monitoring projects in 2014 as resources allow.
- Conducting a regional monitoring summit to coordinate and capture data collected by external groups in order to cost-effectively fulfill the data needs of multiple parties.
- Developing and using Watershed Approach Basin Reports as a platform to engage local stakeholders, such as communities, watershed councils and conservation districts, to find smart solutions to local water quality issues.

Supporting and encouraging implementation of clean water action plans (TMDL implementation).

In addition to the development of Implementation Ready TMDLs, DEQ is stepping up its efforts in other ways to ensure TMDL implementation measures result in effective implementation of TMDL implementation plans such as:

- A TMDL Implementation Plan development guidance document for urban and rural residential areas within the Coastal Nonpoint Management Area boundary that will address TMDL responsibilities and new development urban management measures as required by the Coastal Zone Management Act.
- Working with Oregon Department of Agriculture to develop a comprehensive monitoring and evaluation strategy plan for the Agricultural Water Quality Management Program.
- During the biennial review of Agriculture Water Quality Management Area plans and rules, working with ODA and the Local Advisory Committee to incorporate meaningful metrics and benchmarks for meeting load allocations into the plans.

Monitoring Oregon’s water quality to support water quality program needs, identify emerging issues, understand water quality status and trends, and to inform management activities targeted at restoring Oregon’s water quality and beneficial uses.

DEQ continues to implement elements of the 2005 Strategy for Monitoring Oregon’s Waters. Monitor summits with DEQ staff and external partners were held to communicate DEQ’s water quality monitoring activities and to gather input on regional and external monitoring priorities to assist with updating the strategy in 2012. DEQ’s current water monitoring activities are collecting data across Oregon.

- DEQ toxics monitoring program continues its risk-based screen for toxic contaminants in Oregon’s rivers, streams and lakes. Locations are targeted to identify contaminants in water but may include contaminants in stream bed sediment and fish tissue.
- Long term ambient water quality monitoring of conventional pollutants at fixed stations around the state will continue to identify important trends in water quality. The results are communicated to legislators and land use managers to provide important insights into water quality changes and the factors that are contributing to those changes.
- Reduced TMDL monitoring continues to provide data targeted at TMDL development and some effectiveness monitoring.
- Groundwater monitoring continues in groundwater management areas with nitrate concentrations of concern.
- Beach bacteria monitoring is currently ongoing along the Oregon coast to provide data for beach advisories to protect contact recreation. However, proposed elimination of federal funding may jeopardize DEQ’s ability to continue this work.
- DEQ continues to participate in the data collection for the National Aquatic Resource surveys for the nation’s waters. Sites for the rivers and streams survey will be supplemented to generate a statistically valid sample for an Oregon assessment.
- Facilitate volunteer monitoring activities through trainings, monitoring plan development, quality control checks, and data integration.

1.4 Partners

The cornerstone of the Oregon water quality program is, to the maximum extent practical, to identify solutions at the local community level. Watershed Councils, Soil and Water Conservation and Irrigation Districts, cities and counties all play an important part in the state's strategy.

Oregon has relied on longstanding partnerships to address various activities and sources of nonpoint source pollution. Many of the state's departments, boards, and commissions are now actively involved in addressing nonpoint source pollution and other watershed concerns. In addition, federal agencies are also partners.

1.4.1 Local Partners

- Cities (League of Oregon Cities) <http://www.orcities.org/>
- Counties (Association of Oregon Counties) <http://www.aocweb.org/aoc/default.aspx>
- Watershed Councils (Network of Oregon Watershed Councils) <http://oregonwatersheds.org/>

1.4.2 State Agencies

- Oregon Department of Agriculture (ODA) www.oda.state.or.us
- Oregon Department of Forestry (ODF) www.odf.state.or.us
- Oregon Health Authority (OHA) <http://www.oregon.gov/oha/Pages/index.aspx>
- Oregon Parks and Recreation Department (OPRD) <http://egov.oregon.gov/OPRD/index.shtml>
- Oregon Department of State Lands (DSL) <http://www.oregon.gov/DSL/index.shtml>
- Oregon Department of Geology and Mineral Industries (DOGAMI) <http://egov.oregon.gov/DOGAMI/index.shtml>
- Oregon State Marine Board (OSMB) (Boat Ramps and Other Access Points) (Marine Board) <http://www.boatoregon.com/>
- Oregon Watershed Enhancement Board (OWEB) www.oweb.state.or.us
- Department of Fish and Wildlife (ODFW) www.dfw.state.or.us
- Department of Land, Conservation and Development (DLCD) www.lcd.state.or.us
- Department of Oregon Business Development (OBD) <http://www.oregon.gov/OBDD/index.shtml>
- Department of Transportation (ODOT) <http://egov.oregon.gov/ODOT/index.shtml>

1.4.3 Federal Agencies

- Soil and Water Conservation Districts (Oregon Association of Conservation Districts) <http://oacd.org/>
- U.S. Environmental Protection Agency (EPA) <http://www2.epa.gov/aboutepa/epa-oregon>
- U.S. Forest Service (USFS) <http://www.fs.fed.us/r6/water/>
- U.S. Bureau of Land Management (BLM) <http://www.blm.gov/or/st/en.html>
- U.S. Fish and Wildlife Service (USFWS) <http://www.fws.gov/oregonfwo/>
- U.S. National Marine Fisheries Service (NMFS) <http://www.westcoast.fisheries.noaa.gov/index.html>
- US Army Corps of Engineers (USACE) <http://www.nwp.usace.army.mil/>
- U.S. Bureau of Reclamation (USBR) <http://www.usbr.gov/pn/>
- U.S. National Resource Conservation Services (NRCS) <http://www.nrcs.usda.gov/wps/portal/nrcs/site/or/home/>
- U.S. Farm Service Agency (FSA) <http://www.fsa.usda.gov/FSA/stateoffapp?mystate=or&area=home&subject=landing&topic=landing>

2. Oregon's Water Resources

Figure 1. Waterbodies of Oregon



Oregon ranks as the tenth largest state in the nation with its nearly 97,000 square miles. The Oregon landscape is diverse and surface water resources are a major feature of Oregon. The state has over 6,200 lakes, 9 major estuaries, over 360 miles of coastline, and 111,619 miles of rivers. End to end; Oregon's rivers could circle the Earth four and a half times.

At present, responsibility for managing its water resources is divided between several state agencies that work in an active and effective partnership to protect state waters.

3. Oregon's Nonpoint Source Program

3.1 Description of NPS Program

Oregon's NPS Program is intended to control or prevent nonpoint source pollution to attain water quality standards and thereby protect the beneficial uses of all state waters. Nonpoint source pollution comes from numerous diffuse sources such as runoff from roads, forestry operations, on-site disposal, farms and construction sites. This type of pollution is understood to be the largest source of water quality impairment in Oregon, as well as the rest of the United States.

Oregon will promote and support programs and activities that are guided by best available science and implemented through an adaptive management approach. In addition, Oregon will realize these goals by striving for broad community acceptance and involvement.

Oregon's strategy for improving state waters is on a geographic basis. The state has 21 river basins and 91 sub-basins. The state's National Pollutant Discharge Elimination System (NPDES) permitting, assessment, and TMDL work has been aligned and prioritized according to these sub-basins.

Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) <http://coastalmanagement.noaa.gov/about/czma.html#section6217> requires state to develop Coastal Nonpoint Pollution Control Programs (CNPCP) within the coastal zone area of the state. CZARA requires states and territories to develop management measures to reduce polluted runoff into coastal waters within the coastal management area. CZARA is jointly administered by the National Oceanic and Atmospheric Administration (NOAA) and the EPA.

There are Ground Water Management Area (GWMA) and basin coordinators assigned to each GWMA and basin/subbasin. They take the lead role as GWMA and TMDLs are developed and implemented. The types and extent of water quality impairments, as well as available resources and impediments vary geographically. It is therefore critical to consider GWMA/basin specific conditions and develop local priorities and solution for local problems to achieve water quality improvements.

3.2 Oregon NPS Management Program Plan

Section 319 of the federal Clean Water Act requires states to have nonpoint source management program based on assessments of the amounts and origins of NPS pollution in the state. Oregon's Nonpoint Source Program Plan describes the goals, priorities, objectives, and strategies of the Oregon NPS Management Program used to achieve the mission to prevent, control, and eliminate water pollution from nonpoint sources in waters of the state to meet water quality standards and Total Maximum Daily Load (TMDL) allocations.

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 Plan is a longer-term planning document, the annual milestones may be more general than are expected in an annual section 319 grant work plan, but are specific enough for the state to track progress and for EPA to determine satisfactory progress in accordance with section 319(h)(8) of the federal CWA. 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.

Oregon's current Nonpoint Source Program Plan was approved by EPA in 2000 <http://www.deq.state.or.us/wq/nonpoint/plan.htm> following EPA's 1996 guidance for updating state NPS program plans. The Oregon Nonpoint Source Program Plan meets the requirements of the federal Clean Water Act (federal CWA) (33 USC 1329) and the U.S. Environmental Protection Agency's (EPA) Section 319(b) of the federal CWA.

In 2012, EPA issued guidance *Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program November 2012* http://water.epa.gov/polwaste/nps/upload/key_components_2012.pdf requiring Oregon to revise and submit to EPA for approval Oregon's updated plan. EPA requires plans to be updated every 5 years; therefore, Oregon's plan covers the 5 years of 2014 to 2018.

During 2013, Oregon DEQ developed a draft plan with plans to submit a public review final draft plan in 2014. A final plan will be submitted to EPA in 2014.

3.3 Oregon NPS Program Funding

Federal grants cover the majority of cost for Oregon's NPS program, which protects and restores both surface water and groundwater. During the 2012-2014 biennium, DEQ expects to provide close to \$1.5 million to local organizations for nonpoint source projects such as public education and watershed restoration. Oregon's total 2013 319-Grant allocation of \$2,058,000 was distributed as follows: \$756,508 or approximately 37% was directed to the twenty-six (26) 319 projects grant and the remainder, \$1,301,492 or approximately 63%, was directed to the PPA grant to fund 9.45 DEQ staff positions for the NPS program.

In 2013, DEQ made Clean Water State Revolving Fund (CWSRF) loans totaling more than \$6 million to two nonpoint source projects. Central Oregon Irrigation District (Redmond) is piping 4,500 feet of open canal resulting in conserved water flow within both the middle Deschutes and lower Crooked Rivers; home to listed bull trout and reintroduced steelhead. Piping the districts open canal reduces evaporation, leakage, turbidity and reduces pollution from agricultural runoff.

The City of Ashland is taking advantage of DEQ's CWSRF loan through the sponsorship option and combining both a point source and nonpoint source project and qualifying for a lower interest loan. A majority of the loan is being used to restore eight miles of riparian area within the Bear Creek watershed. The city's goal is to decrease water temperature by increasing shading. Creeks within the watershed are critical habitat for threatened Coho salmon.

3.4 Program Directions and Priorities in 2013

DEQ continues to implement the NPS Program and direct funding into basins impaired by NPS pollution. In addition, DEQ is continuing to work toward implementation of the watershed approach, which would incorporate the use of the EPA's key watershed planning components with the nine key NPS elements. This includes continued improvement in coordination between the various DEQ Water Quality Programs including NPS, TMDLs, Integrated Report, Source Water Protection, Groundwater, Clean Water State Revolving Fund, and 319 Project Grants.

In addition, DEQ has been working with staff from the Oregon Water Enhancement Board (OWEB), Natural Resource Conservation Service (NRCS), and other funding entities to prioritize and coordinate our efforts to address nonpoint sources of pollution. Development of an Oregon Watershed Approach that would integrate implementation ready TMDL Implementation Plan requirements (Oregon TMDL Rule, OAR 340-042-0025); EPA's Key Watershed Planning Components with Nine Key NPS elements; and drinking water protection program elements is planned.

Priorities for the NPS Management Program are:

- Watershed Approach Basin Reports: These reports are in-depth assessments conducted by DEQ of the state's basins. These assessments take the form of local Water Quality Status and Action Plans, which

describe water quality conditions and include recommendations for actions that DEQ and others who are interested in these basins can take to improve water quality. Where reports have been developed, DEQ has been able to use the action plans and basin priorities to determine how resources will be allocated.

- Combining the expertise of DEQ's 17 water quality subprograms to ensure that DEQ's resources and scientific information are put to use effectively.
- Consulting with local, state and federal agencies, as well as local interest groups and watershed councils, to help DEQ identify problems and solutions. The watershed approach allows opportunities for direct, interactive feedback between DEQ and its many stakeholders.
- TMDLs: DEQ focuses on development and implementation of TMDLs.
 - Development: Draft and implement a guidance document that identify the TMDL process.
 - Development: Areas where land uses and land management are a source or potential source of the pollutant TMDLs will be developed to address the nonpoint source(s) and point sources as appropriate.
 - Development: Provide better reasonable assurance during TMDL development process.
 - Implementation: Working with Designated Management Agencies (DMAs) to assure they are meeting TMDL priorities that address their responsibilities identified in the TMDL or WQMP.
 - Implementation: Identify lead staff to work with sister agency DMAs to achieve consistency and efficiency.
 - Implementation: Conduct additional analysis to provide better reasonable assurance and guide implementation for existing TMDLs that are identified as priorities.
 - Implementation: Continue to build relationships with funding agencies and entities to direct funding toward high priority projects.
- Agriculture: Agriculture Water Quality Management Program has been implemented for more than a decade. During that time, implementation of conservation practices and restoration has occurred. However, implementation activities have been opportunistic and difficult to show that progress has been made. In addition to opportunistic, implementation on agricultural lands should be strategic and future actions should be documented in order to demonstrate accountability and to leverage various funding sources.
 - Participate in biennial review process to assist ODA to identify and document implementation actions.
 - DEQ provides water quality data analysis during the biennial review process.
 - Support ODA to establish measures to quantify implementation and evaluate program accomplishments.
 - Participate in local grant funding process to direct resources to high priority agricultural issues.
 - EPA directed the states in 2013 to conduct effectiveness monitoring using 319 funds in National Water Quality Initiative (NWQI) watersheds where the Natural Resources Conservation Service (NRCS) identified to improve water quality by focusing its investments. In 2013, EPA awarded technical assistance grant for Oregon to develop monitoring plan for Fifteenmile and Willow Creeks NWQI effectiveness monitoring projects. DEQ and its partners will be developing and implementing the effectiveness monitoring projects in those watersheds during 2014-2019.
 - Working with the Conservation Effectiveness Partnership in 2013, DEQ continued to meet with USDA-NRCS, Oregon Water Enhancement Board (OWEB), and ODA to evaluate the impacts of grant investments on water quality and watershed health. Although the partner agencies did not finalize the reports on two "pilot watersheds," the Wilson River in Tillamook Bay and Wychus Creek along the Upper Deschutes River, they committed to work on NWQI monitoring projects in 2014 as resources allow.
- Forestry: Participate as appropriate in private Forest Practices Act rule analysis and concept development for water quality issues; revisions to management plans for state forests; and federal forest management planning to ensure that forestland management is consistent with water quality standards and TMDL load allocations.
 - Prevent, reduce, eliminate, or remediate NPS water pollution and, where necessary, improve water quality to support beneficial uses on forestlands.
 - Provide comment on FPA rules for private forestlands in cooperation with Oregon Department of Forestry (ODF) Private Forest Division staff to ensure that water quality standards are being attained, TMDL load allocations are being met, and beneficial uses are being supported on private forestlands in Oregon.

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- Evaluate voluntary implementation of Oregon Plan for Salmon and Watersheds effectiveness in reducing water quality risks and impacts, identify information gaps, and collect additional information as needed in cooperation with ODF and landowners.
 - Review any changes to state forest management plans and work with ODF State Forest Division staff so changes to plans continue to protect water quality and beneficial uses on state-owned forestlands.
 - Cooperate on priorities, strategies, and funding using a watershed approach to protect and restore water quality on federal forestlands.
- Urban and rural residential: Establishment of TMDLs provides opportunities for DEQ to work with DMAs that have authority to regulate urban and rural residential areas.
 - Improve and establish consistent coordination between TMDL and Stormwater programs.
 - Finalize and implement post construction stormwater guidance.
- 319 Grant Program: It is critical for the 319 Grant Program to be implemented strategically and efficiently. Oregon's priorities are to streamline as much of grant administration and reporting, and to allocate funds strategically.
 - Continue process improvement of Request for Proposals for timely and efficient issuance;
 - Provide guidance to DEQ staff and grant recipients for grant administration including contracting and invoicing;
 - Continue to report 319 Grant data into GRTS and meet reporting deadlines;
 - Coordinate with NRCS and OWEB for reporting on implementation activities;
 - Incorporate measures, timelines, and milestones in NPS Annual Report;
 - Use of Annual NPS Report to track yearly progress of implementation of the approved NPS Management Program.
- Source Water Protection: Identify where nonpoint sources of pollution are significant threats to drinking water sources and incorporate into NPS Program priorities (including forestry and agriculture).
- Groundwater: Identify where nonpoint sources of pollution are impacting groundwater quality; incorporate into NPS Program priorities (including forestry and agriculture); and utilize state authorities for groundwater protection as needed.
 - There are GWMA and basin coordinators assigned to each GWMA and basin/subbasin. They take the lead role as GWMA and TMDLs are developed and implemented. The types and extent of water quality impairments, as well as available resources and impediments vary geographically. It is therefore critical to consider GWMA/basin specific conditions and develop local priorities and solution for local problems to achieve water quality improvements.
- Assessments and Monitoring: DEQ conducts various types of assessments as required by the federal CWA and uses monitoring data for these assessments as appropriate.

To promote watershed restoration and protection, DEQ:

- Collects information necessary to assess the state's waterbodies to determine if designated uses are being met;
- Uses Oregon's Integrated Report to evaluate progress made in restoring designated use support of all waters;
- Produces TMDLs for impaired waters where near-term delisting is not apparent;
- Uses TMDLs to establish NPS pollutant reduction goals;
- Uses watershed coordinators to assist local stakeholders and resource agencies to implement TMDLs at the local level;
- Collaborates with DMAs, federal, state and local agencies and watershed groups, to develop and/or implement TMDL Implementation Plans;
- Promotes TMDL Implementation Plans as the basis for allocating resources to reduce NPS pollution entering the water body;
- Administers federal CWA Section 319 Grant Program and other applicable grants to enable actions that achieve water quality goals;
- Reviews existing monitoring data for priority watersheds and recommend supplemental data to measure water quality trends associated with watershed activities;
- Reports data to local stakeholders and general public;

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- Reports progress made in water quality improvement to EPA and the public through the NPS Annual Reports and the NPS website; and
- Produces Success Stories for water bodies that meet water quality standards because NPS activities have been implemented.

2011 319-FUNDED PROJECT NUMBER W11616

Project Location:

Property on Milk Creek, tributary to Molalla River, Molalla-Pudding Subbasin, Willamette Basin.

Project Purpose:

To stabilize approximately 600 feet of streambank, remove non-native vegetation, install livestock exclusion fencing, and plant native riparian vegetation.

Photos Credit:

By Tom Salzer, Clackamas Soil and Water Conservation District.

Before:



After:



3.5 Oregon NPS Management Program Plan Key Actions

The primary purpose of Oregon's NPS program and plan is to develop and implement strategies to prevent, control, and eliminate water pollution from nonpoint sources in waters of the state to meet water quality standards and TMDL load allocations. The plan represents a unified approach reflecting the fact that the State intends to continue to plan, implement and prioritize actions to address NPS problems on a statewide basis.

Oregon's NPS Management Program Plan (NPS Plan) describes outcomes and key actions expected over the 5-Year plan period from 2014 to 2018. Some actions occur every year, others have fixed end target dates, and some occur every 5-Years. The following table of Key Oregon NPS Management Program Plan goals, actions, milestones and timeframe are taken from the plan. These key elements are used to track and report on administrative outputs, overall program goals, and planned actions during five year life of the plan. The table is organized by the program plan contents.

DEQ will report on the progress made on each of these actions through the Oregon DEQ NPS Annual Report that is submitted to USEPA Region 10 for approval each year. Each year the DEQ NPS Annual Report will identify the activities completed during the year in implementing the Oregon NPS Program Management Plan. Some plan actions have specific dates identified for completion. Others occur continuously throughout the life of the plan.

The following table states the activities that occurred during 2013 in implementing a NPS Plan action:

Table 1. NPS Management Plan Actions, Priorities, Milestones 2014 to 2018 and 2013 Activities

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
MAJOR NPS PLANS				
Update NPS Management Plan Every 5 Years	Update Oregon's NPS Plan that describes how the state's NPS management program achieves water quality standards and TMDL load allocations through restoration and protection.	DEQ issues and submits to EPA For Approval	2014	Draft NPS Plan Prepared
Implement NPS Management Plan	Implement the NPS Management Plan to achieve the NPS Program goals and priorities.	Various milestones	2014 to 2018	Occurring Overtime and Annual Activities Reported in NPS Annual Report
Issue NPS Annual Report	The NPS Annual Report describes the progress in implementing the NPS MANAGEMENT PLAN and achieving the NPS Program goals and objectives.	DEQ issues and submits annually for EPA Approval	2014 to 2018	2012 NPS Program Annual Report Submitted and Approved by EPA

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
MAJOR NPS PLANS (Cont.)				
Complete the Coastal Nonpoint Control Plan as required by CZARA	Submit to EPA and NOAA a plan for achieving: <ul style="list-style-type: none"> • Management Measures for Urban Areas, Urban Runoff: Operating Onsite Disposal Systems Management. • Management Measures for Urban Areas, Urban Runoff: New Development. • Additional Management Measure, Forestry that protect medium, small, and fish and non-fish bearing streams; protect high-risk landslide areas; effectively address the impacts of road operation and maintenance, particularly legacy roads; and ensure the adequacy of stream buffers for the application of certain chemicals. 	DEQ/DLCD issues and submits to EPA and NOAA for Approval	2014	December 20, 2013 – NOAA/EPA Issued a Draft Notice of Disapproval
BLM Annual Report	The 2011 MOU between the BLM and DEQ requires BLM to submit an Annual Report to DEQ.	BLM submits to DEQ for Approval	2014-2018	Draft Submitted to DEQ for Review and Comment
USFS Annual Report	The 2013 MOU between the USFS and DEQ requires USFS to submit an Annual Report to DEQ.	USFS submits to DEQ for approval	2014-2018	Final USFS/DEQ MOU Completed; Signed in 2014
BLM/DEQ 5-Year Progress Report	The 2011 BLM/DEQ MOU requires the preparation of a BLM/DEQ 5-Year MOU Progress Report.	Document Progress In Implementing MOU Actions and Update MOUs	2016	Due To Be Completed in 2016
USFS/DEQ 5-Year Progress Report	The 2013 USFS/DEQ MOU requires the preparation of a USFS/ DEQ 5-Year MOU Progress Report.	Document Progress In Implementing MOU Actions and Update MOUs	2018	To be completed in 2018

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
319 GRANT PROGRAM				
319 Grant Funding DEQ NPS Program	DEQ uses some of the 319 grant to fund DEQ activities to support work to achieve the nps program goals and priorities.	DEQ NPS Program Funding	2014-2018	2012 Annual Report Describes 319 Funding
Priority Projects To Receive 319 Grant Funding For Pass Through Grants	Region and HQ staff identify and rank projects to receive pass through 319 grant funds for addressing nps program priorities.	List of Priority Projects In The 319 Grant Request For Proposals	2014-2018	2012 319 Grant Request For Proposals includes list of priority projects
319 Grant RFPs	Continue process improvement of 319 Grant RFPs for timely and efficient issuance. Provide training to DEQ NPS and TMDL staff to increase efficiency and timeliness.	DEQ Provides Timely And Efficient Issuance of 319 Grant RFPs.	2014-2018	2013 RFP was issued and no training of staff was done
319 Grant Administration	Provide guidance to DEQ staff and grant recipients for grant administration including contracting and invoicing in order for DEQ to receive 319 Grants proposals and to issue 319 Grant dollars faster and more efficiently. Restoration and water quality sampling projects are funded in the spring early enough to implement. Provide training to DEQ NPS and TMDL staff on its use.	DEQ Develops, Receives EPA Approval, and Issues 319 Grant Administration Guidance	2015	No 319 Grant Administration Guidance was completed
GRTS	Continue to report 319 Grant Data into GRTS; Meet annual reporting deadlines.	Provide GRTS Reporting on time to EPA for Approval	2014-2018	GRTS Reporting was on time
NPS Implementation	Collect information from NRCS, USFS, BLM and OWEB on annual NPS project implementation activities including 319 Grant projects.	Include information in the DEQ NPS Annual Report	2014-2018	NPS implementation activities is included in annual report
NPS Pollutant Load Reduction Estimates	Collect information on annual nitrogen, phosphorus, and sedimentation-siltation NPS pollutant load reduction estimates for NPS projects.	Include information in DEQ NPS Annual Report	2014-2018	NPS Pollutant Load Reduction estimates is included in annual report

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
319 GRANT PROGRAM (Cont.)				
DEQ's NPS Program Website	DEQ's NPS Program Website updated as needed.	DEQ NPS Program website updates at least annually to reflect current RFP and NPS Annual Report and other documents as needed	2014-2018	Public Review and Comment Notices Where added to the Website
WATERSHED APPROACH BASIN REPORTS				
Watershed Basin Status and Action Plans	Develop a template for Watershed Basin Status and Action Plans. Provide training to DEQ NPS and TMDL staff on its use.	Make Watershed Basin Status and Action Plans Template available to DEQ staff	2015	No Action
Watershed Basin Status and Action Plans	Develop Watershed Basin Status and Action Plans within identified priority watersheds that identify priority problems and waters.	DEQ issues Watershed Basin Status and Action Plans	2014-2018	Three Plans were nearly completed and three were begun
EPA's Nine Key Elements	Report on how TMDL Implementation Plans and Watershed Basin Status and Action Plans meet EPA's Nine Key Elements.	DEQ reports on status of these activities to meet EPA's Nine Key Elements Report	2014	Not Done
Volunteer Monitoring	Volunteer Monitoring Watersheds Sample Plans are developed.	QAPPs and SAPs reviewed by DEQ	2014-2018	Volunteer monitoring plans were reviewed by DEQ
BASIN SPECIFIC PROJECTS				
Basin Specific Activities	Basin specific activities and projects will be prioritized through the various TMDL/NPS Program processes and these basin specific activities and projects will be documented and reported.	Basin specific activities reported in DEQ's NPS Annual Report	2014-2018	Basin specific activities are reported in annual report

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
TMDLS AND OTHER WQ PROGRAMS				
TMDL Guidance or IMD	Develop TMDL Guidance or IMD on how to produce work plans that identify data needs and designing a monitoring study.	TMDL Data Needs and Monitoring Study Produces Implementation Ready TMDLs and WQMPs	2015	Not completed
Technical Assistance	HQ will provide technical assistance on TMDL development and TMDL implementation efforts.	DEQ Staff Provide TMDL Technical Assistance to Ensure TMDL Load Allocations and Water Quality Standards Are Met	2014-2018	Technical assistance was provided
TMDL IMPLEMENTATION				
TMDL Implementation Plans	Work with DMAs to develop and implement TMDL Implementation Plans (including annual reports) as described in the TMDL/WQMP.	DMAs Meet TMDL/WQMP responsibilities	2014-2018	DEQ worked with DMAs to develop and implement TMDL Implementation Plans
TMDL Implementation Plans	DEQ reviews TMDL Implementation Plan annual reports.	DMAs Meet TMDL/WQMP responsibilities	2014-2018	# TMDL Implementation Plan annual reports were reviewed by DEQ
TMDL Implementation Plan	Develop a process for DEQ staff on how to conduct TMDL Implementation Plan review.	DMAs Meet TMDL/WQMP responsibilities	2015	Process not developed
TMDL & NPS Implementation	Develop a spreadsheet and process for DEQ to track and report on landscape condition for achieving TMDL implementation timelines and milestones including water quality status and trends.	Information included in the DEQ NPS Annual Report	2014	TMDL implementation and water quality status and trends not included in the annual report

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
TMDL IMPLEMENTATION (Cont.)				
Reasonable Assurance	Conduct analysis during TMDL/WQMP development to provide reasonable assurance and guide implementation for TMDLs.	Information included in the DEQ NPS Annual Report	2014-2018	Reasonable assurance analysis of TMDLs not included in annual report
TOXICS				
Water Quality Pesticide Management Team and Pesticide Stewardship Partnerships (PSPs)	Continue to work with the WQ-PMT and implement programs to address water quality pesticide issues including the PSP projects.	Reduce, where needed, instream pesticide concentrations	2014-2018	PSP projects are reported on in the annual report
Public Water System (PWS)	Continue developing contaminant-specific reduction strategies for public water system use, such as for nitrates and pesticides from urban and rural residential lands.	Reduce or protect PWSs from NPSs of pollution	2014-2018	Contaminant-specific reduction strategies for public water system use are identified in annual report
AGRICULTURE				
Landscape Condition for TMDLs and WQS	Document definition of system potential and site capable vegetation	Coordination between, and effective implementation of, the TMDL/NPS Programs and Agriculture Water Quality Program	2014	ODA has developed draft system potential and site capable vegetation
Landscape Condition for TMDLs and WQS	Conduct effective shade assessments for evaluating implementation to achieve TMDL/WQS goals under area rules and plan	Coordination between, and effective implementation of, the TMDL/NPS Programs and Agriculture Water Quality Program	2014	To be completed in 2014

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
AGRICULTURE (Cont.)				
Biennial Review of Area Rule and Plan	Participate in ODA's biennial review process by providing water quality status and trends and landscape condition in priority areas	DEQ provides substantive input during the Area Rule and Plan revision	2014-2018	DEQ's Biennial Review of Area Rule and Plan is described in annual report
Update DEQ Guidance for Biennial Reviews	Collaborate with ODA for updating DEQ guidance for providing comment during ODA's Biennial review Process	DEQ provides substantive input during the Area Rule and Plan revision	2015	To be completed in 2015
Grant Funding	DEQ participate in local grant funding process to direct resources to high priority agricultural issues.	Coordination between, and effective implementation of, the TMDL/NPS Programs and Agriculture Water Quality	2014-2018	DEQ's participation in local grant funding process for high priority agricultural issues are described in annual report
ODA Area Rule Compliance	Work with ODA to prioritize and help develop assessment methodologies for addressing sediment and sedimentation, bacteria, nutrients, and pesticides.	Coordination between, and effective implementation of, the TMDL/NPS Programs and Agriculture Water Quality	2014-2018	DEQ work with ODA's Area Rule Compliance is described in annual report
FORESTRY				
FPA Sufficiency Analysis	Participate with ODF to jointly develop study designs (and funding sources) to specifically address unanswered questions from the 2002 FPA Sufficiency analysis.	Private and State Forestlands Meet TMDL Load Allocations and Water Quality Standards	2015	DEQ's work with ODF on finishing 2002 FPA Sufficiency analysis is described in annual report
Forest Practices Act Rule	Participate in private Forest Practices Act rule analysis and concept development for water quality issues and revisions to management plans for state forests.	Private and State Forestlands Meet TMDL Load Allocations and Water Quality Standards	2014	DEQ's work with ODF on private Forest Practices Act rule is described in annual report

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GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
FORESTRY (Cont.)				
ODF/DEQ MOA	Participate with ODF on revising the current MOA between ODF and DEQ.	Revision to the 1998 DEQ/ODF MOA	2015	To be completed in 2015
URBAN/ RURAL RESIDENTIAL LANDS				
TMDL and Stormwater	Development of DEQ guidance to improve and establish consistent coordination between TMDL and stormwater programs.	Finalize guidance and provide training to DEQ staff and urban DMAs	2014 - 2018	In process of development
FEDERAL LANDS				
USFS Annual Status Report	The USFS will submit to DEQ a Statewide Annual Status Report to meet the MOU and any DEQ TMDL reporting requirements.	USFS submittal of the document to DEQ	2014 - 2018	To be done in 2014
BLM Annual Status Report	The BLM will submit to DEQ a Statewide Annual Status Report to meet the MOU and any DEQ TMDL reporting requirements.	BLM submittal of the document to DEQ	2014 - 2018	To be done in 2014
Coordination of USFS and BLM with DEQ	The USFS and BLM will coordinate with DEQ for establishing priorities, strategies, and funding using a watershed approach to protect and restore water quality on federal forestlands, this will include WQRPs.	Annual check in on Federal Lands progress towards meeting TMDL Load Allocations and Water Quality Standards	2014 - 2018	Not Done
USFS BMPs	As needed, USFS will develop Oregon specific land use activities BMPs and monitor implementation and effectiveness of BMPs following the USDA National Best Management Practices for Water Quality national protocols.	Annual check in on Federal Lands progress towards meeting TMDL Load Allocations and Water Quality Standards	2014 - 2018	National USFS BMPs completed and the MOU requires the USFS to develop Oregon specific forest land uses BMPs
BLM BMPs	BLM develops Oregon specific land use activities BMPs, monitors implementation and effectiveness of BMPs, and submits to DEQ for review and comment.	Annual check in on Federal Lands progress towards meeting TMDL Load Allocations and Water Quality Standards	2014 - 2018	Road BMPs approved by DEQ and are in use by BLM

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2013 ACTIONS
FEDERAL LANDS				
Pre-TMDLs and Post-TMDL	The USFS and BLM will use the Forest Service and Bureau of Land Management Protocol for Addressing Clean Water Act Section 303(d) Listed Waters, May 1999, Version 2.0.	Annual check in on Federal Lands progress towards meeting TMDL Load Allocations and Water Quality Standards	2014 - 2018	Partly identified in each annual progress report
Agricultural Activities	The USFS and BLM will develop and implement a programmatic strategy to address agricultural activities on federal lands, such as grazing.	Annual check in on Federal Lands progress towards meeting TMDL Load Allocations and Water Quality Standards	2014 - 2018	Not Done

3.6 Prioritization of NPS Activities in 2013

Prioritization of program activities is important to best use Oregon’s limited resources for preventing or reducing NPS pollution and improving water quality. In addition, recommendations from a long-term water quality program planning effort were used to help prioritize work.

The following criteria were used to prioritize activities for 2013:

1. Actions that are measurable and achievable – known environmental result.
2. Actions that act as a catalyst to move the NPS Program forward.
3. Actions that can guide other program efforts such as setting policy or developing tools.
4. Actions that enable the program to leverage internal and external resources.
5. Actions that invest in and or develop political will and community support.
6. Actions that develop an internal process to increase efficiency and consistency.
7. Actions that include an ongoing assessment of monitoring and particularly 319 funding for projects that include monitoring.

This prioritization process focused DEQ’s NPS efforts in 2013 on agricultural, federal, state, and private forestry land use activities, and the Oregon Coastal Nonpoint Pollution Control Program (CNPCP).

4. NPS Activities and Accomplishments in 2013

4.1 Programmatic – NPS Management and Administration

4.1.1 Performance Partnership Agreement

A portion of DEQ's nonpoint source program activities are funded through the EPA and DEQ Performance Partnership Agreement (PPA). The current PPA is for activities occurring from **July 1, 2012 to June 30, 2014**. This funding used in waters impaired by NPS pollution supports program management, administration, TMDL development and implementation, mainstem Columbia water quality management, and agency coordination.

These funds support **9.45 FTE** positions within DEQ that were involved in the following programs / projects:

- With Oregon's 319-Grant Incremental Funds **26 NPS Projects** were funded.
- Implement TMDLs for NPS in subbasins where TMDLs/WQMPs have been completed, such as the Willamette River and Columbia River Basins.
- Implement the Willamette Mercury TMDL (Phase I) using DEQ's Mercury Reduction Strategy and mercury source characterization work to help identify priorities and strategies.
- Implement strategies for GWMA's with established Action Plans.
- Distribute 319 grants to fund project proposals in Oregon's priority basins based on TMDL implementation, 303(d) listings, GWMA's, and Drinking Water Source Areas.
- Administer 319 Grants.
- Prepare an annual report of NPS program accomplishments.
- Determine with EPA potential NPS success stories documenting either that the water body is meeting WQS or making water quality progress under EPA's national measures.
- Enter GRTS 319 project tracking mandated data elements by national deadlines, including pollutant load reductions, as available.
- Coordinate with the Oregon Department of Land Conservation and Development (DLCD) on the Oregon Coastal Nonpoint Pollution Control Program (CNPCP).
- Coordinate with state and federal natural resource managers on meeting water quality goals and objectives.

DEQ's NPS program also includes staff, which performs the following activities:

- Characterization of NPS problems/concerns.
- Monitoring to support and determine effectiveness of BMP programs.
- Best management practices development/implementation.
- Coordination between stakeholders.
- Liaison support staff to other state and federal agencies.
- Restoration activities.
- Development and modeling for NPS TMDLs.
- Development of UAA)/SSC¹ as related to NPS activities.
- Public education.

¹ In order to meet the demand for DEQ to remove beneficial uses in some sub-basins or set "site specific" standards (SSC) has increased. The Clean Water Act requires that a Use Attainability Analysis (UAA) be completed before a State may remove a designated use. A similar scientific analysis is needed to develop SSCs.

The following **Table 2** is a compilation and summary of elements 2 and 8 sections from the actual July 1, 2012 to June 30, 2014 PPG Work plan.

Table 2. July 1, 2012 to June 30, 201 Performance Partnership Agreement Nonpoint Source Pollution Control Commitments.

2012-2014 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component		
Number	DEQ Commitment	Outputs
<i>Element 1: Water Quality Standards and Assessments</i>		
1.1	Complete water quality standards revisions for turbidity.	Final recommendations for revised standards for turbidity presented to the Environmental Quality Commission for adoption by 6/2013.
1.2	Technical support for court decision/litigation for temperature standards package. DEQ will provide supporting information as warranted and any other assistance requested by EPA attorneys. Participate in settlement negotiations if warranted.	Implementation of any consent decrees or court orders that require future action by DEQ. Ongoing
1.3	DEQ will provide information as requested by EPA and participate in discussions and negotiations related to ESA consultation and any proposed State conservation measures on DEQ's toxic pollutants criteria for fish and aquatic life. In taking its action, EPA will consider the Biological Opinions.	Letter of approval or disapproval from EPA to DEQ. Any disapproval will include the reasons for the decision and possible remedies or alternatives by 11/30/2012.
1.4	Prepare a description of how Oregon addresses nutrient-related water quality issues in its CWA programs.	DEQ report describing Oregon's approach to addressing nutrients by 7/31/2012.
1.11	Advancing DEQ's watershed approach efforts by synchronizing up the 2014 Integrated Report with the Watershed Approach Basin Reports.	Oregon Integrated Report and Watershed Approach Basin Reports. Ongoing

Table 3. July 1, 2012 to June 30, 201 Performance Partnership Agreement Nonpoint Source Pollution Control Commitments. (Cont.)

2012-2014 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component		
Number	DEQ Commitment	Outputs
<i>Element 2: TMDLS</i>		
2.1	Develop TMDLs and WQMPs in accordance with 303(d) list schedule.	<p><u>Issuance of TMDLs for the:</u></p> <ul style="list-style-type: none"> - Deschutes Basin by 6/12 - Coquille Basin by 3/13 - MidCoast Basins by 6/13 <p><u>Issuance of TMDLs for the following by 6/14:</u></p> <ul style="list-style-type: none"> - Powder/Burnt Basins - Chetco Basin - Sixes Basin <p><u>TMDL Revisions for the following:</u></p> <ul style="list-style-type: none"> Tualatin Subbasin by 9/12 Upper Klamath and Lost River Subbasins by 10/12
2.3	Implement the Willamette River Basin TMDL. Work with watershed councils, local governments, and other DMAs to develop appropriate management practices and plans for controlling pollutants to the Willamette River. Work with USDA agencies to leverage Farm Bill resources to implement priority best management practices in critical areas.	Completed Implementation plans throughout Willamette Basin that guide management practices, pollutant controls to meet load allocations in TMDLs. Facilitate projects that result in improvements in water quality. Ongoing
2.4	Implement the Willamette Mercury TMDL (Phase I) using DEQ's Agency Toxics Reduction Strategy, Mercury Reduction Strategy and mercury source characterization work to help identify priorities and strategies. Work with stakeholders to implement strategies to reduce mercury in the environment. Work with EPA Region 10 to develop and implement Region 10's Mercury Strategy Framework.	Complete characterization of mercury sources in Willamette basin and data required for final modeling. Ongoing

Table 4. July 1, 2012 to June 30, 201 Performance Partnership Agreement Nonpoint Source Pollution Control Commitments. (Cont.)

2012-2014 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component		
Number	DEQ Commitment	Outputs
<i>Element 2: TMDLS (Cont.)</i>		
2.5	Implement TMDLs for Nonpoint Sources in subbasins where TMDLs/WQMPs have been completed. Work with watershed councils, local governments and other DMAs to develop appropriate management practices and plans for controlling pollutants. Work with USDA agencies to leverage Farm Bill resources to implement priority best management practices in critical areas.	Completed Implementation plans that guide management practices, pollutant controls to meet load allocations in TMDLs. Facilitate projects that result in improvements in water quality. Ongoing
2.6	Develop Implementation Ready TMDLs for the Mid-Coast basins.	Completed TMDLs issued as administrative orders that assign load allocations to pollutant sources in the basins by 6/13.
2.7	Implementation of load allocations or require TMDL implementation plans for all sources assigned load allocations.	Implementation plans that meet load allocations or management measures identified in the TMDL/WQMP that meet load allocations by 2013.

Table 5. July 1, 2012 to June 30, 201 Performance Partnership Agreement Nonpoint Source Pollution Control Commitments. (Cont.)

2012-2014 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component		
Number	DEQ Commitment	Outputs
<i>Element 7: WQ Data Analysis, Management and Monitoring</i>		
7.3	Ambient Monitoring Network -DEQ will continue to monitor approximately 130 ambient water quality station 6 times annually throughout Oregon. These stations provide status and trends data for understanding water quality. These stations provide status and trends data for understanding water quality.	<ul style="list-style-type: none"> - Continue entering data into the database. - The Oregon Water Quality Index (OWQI) will continue to be updated annually. Annual reports will be prepared on water quality trends and indicators. - Data will be used to support the 303(d) assessment process. - Data will be used for the 305(b)/Watershed Assessments. By 1/13 and 1/14
7.4	Collect water quality data to support TMDL development.	TMDL developed on schedule and supported by adequate data. Ongoing
7.5	Conduct 31 site visits in Oregon as part of the National Lakes Assessment. This work is funded with dedicated 106 grant dollars.	<ul style="list-style-type: none"> - Provide data for upload to EPA management system. - Use information in the narrative section of the 305(b) report/Watershed Assessments when available. By 10/30/2012
7.6	Collect water quality, biological data and physical habitat data at 30 sites in an Oregon Basin.	Water quality, biological data and physical habitat available for use in a basin assessment by January 2014
7.8	Revise SOP for evaluating reference sites to incorporate new GIS information.	<ul style="list-style-type: none"> - Document outlining process for evaluating reference sites by 4/14
7.9	Conduct analysis of water quality data for Watershed Approach Basin Reports and Ag Area Plan & Rule biennial reviews.	Watershed Approach Basin Reports for three basins per year: South Coast, Clackamas/Sandy, Powder/Burnt Basins by 6/30/2013

Table 6. July 1, 2012 to June 30, 201 Performance Partnership Agreement Nonpoint Source Pollution Control Commitments. (Cont.)

2012-2014 Performance Partnership Agreement NPS and 319 Funded Related Water Quality Components		
Number	DEQ Commitment	Outputs
<i>Element 8: Management of Nonpoint Sources of Pollution</i>		
8.1	Distribute 319 grants to fund project proposals to Oregon’s priority basins based on TMDL development and implementation, drinking water source areas and GWMA’s.	Solicit and select projects during 05/13 and 05/14.
8.2	Prepare an annual report of NPS program accomplishments.	Place on website. The 2010 Annual Report was submitted by DEQ and approved by EPA. The report is on DEQ’s website during 03/13 and 03/14.
8.3	Determine with EPA available NPS Success Stories documenting either water quality progress or full restoration under PAM.	NPS Success Stories during 9/12 and 9/13
8.4	Enter GRTS 319 mandated elements to 319 project tracking data by national deadlines, including load reductions as available.	Data reflecting progress and status of 319 implementation by 2/13, 2/14 load reduction, other GRTS data (National GRTS reporting deadlines).
8.5	Work with EPA to review TMDLs and other basins plans for meeting EPA’s 9 Key Element watershed based planning guidance.	Develop strategies to leverage current resources for development of a watershed framework that integrates TMDLs and NPS Programs and is consistent with EPA’s 9 Key Elements watershed plan model. Inform DEQ HQ and Regional staff about the Watershed Framework and the linkages between the various DEQ Water Quality subprograms. Develop conceptual model for management practice reporting system for implementation monitoring of WQMPs by 6/13.
8.6	Develop BMPs and other measures/rules to address NPS pollution from forestry, new developments, and on-site disposal within the Coastal Zone.	Outstanding conditions related to Oregon’s Coastal NPS Pollution Control Plan are addressed.

2012-2014 Performance Partnership Agreement NPS and 319 Funded Related Water Quality Components		
Number	DEQ Commitment	Outputs
<i>Element 8: Management of Nonpoint Sources of Pollution (Cont.)</i>		
8.7	Develop Agency Toxics Reduction Strategy.	A toxics reduction strategy that incorporates air, land and water by 06/30/13.
8.8	Prepare an update to the 2000 Oregon NPS Management Plan.	Complete an updated Oregon NPS Management Plan; (Draft) NPS Plan Update 6/13, (Final) NPS Plan update 9/13

4.2 Use of Incremental vs. Base Funds

Oregon's total 2013 319-Grant allocation of \$2,058,000 was distributed as follows: \$756,508 or approximately 37% was directed to the twenty-six (26) 319 projects grant and the remainder, \$1,301,492 or approximately 63%, was directed to the PPA grant to fund 9.45 DEQ staff positions for the NPS program.

Table 7. Breakdown of Oregon's 2013 Section 319 Allocation from EPA

BREAKDOWN OF OREGON'S 2013 SECTION 319 ALLOCATION FROM EPA			
Area	Fiscal Year 2013 Enacted	Incremental Funds	Base Funds
Region 10	\$8,554,000	\$?	\$?
Oregon	\$2,058,000	\$?	\$?

Table 8. 2013 Oregon's 319 Grant Incremental and Base Funds Use: Funded Positions / NPS Program Activities

2013 OREGON'S 319 GRANT INCREMENTAL AND BASE FUNDS USE: FUNDED POSITIONS / NPS PROGRAM ACTIVITIES			
Fund	Dollar Amount	Percent	Use
Base Funds (\$784,000) + Incremental Funds (\$483,000)	\$1,301,492	63%	9.45 DEQ Staff Positions
Incremental Funds	\$756,508	37%	26 Projects
TOTAL	\$2,058,000	100.0 %	--

4.2.1 Base Funds

Oregon's "base funds" supports 9.45 positions within DEQ on the following programs:

- TMDL Development.
- TMDL Implementation.
- Update Oregon's 319 Grant Guidelines.
- Distribute 319 Grants For Projects.
- 319-Grant Administration and GRTS reporting of 319 activities.
- Annual NPS Report.
- NPS Success Stories.
- NPS Load Reductions.
- Columbia Water Quality Management.
- Oregon Coastal Nonpoint Pollution Control Program (CNPCP).
- State and Federal Coordination.

The following **Table 9** identifies how the PPG Base Funds dollars and FTE were budgeted in 2013 to support the various NPS program activities:

Table 9. 2013 Oregon's 319 Grant Funded Positions and NPS Program Activities Costs

2013 OREGON'S 319 GRANT FUNDED POSITIONS / NPS PROGRAM ACTIVITIES	FTE	Dollars
NPS TMDL Modeling	1.00	\$127,159
Regional NPS Implementation and NPS TMDL Development and Implementation	4.00	\$527,343
Prorates and Management and Administrative Support (Includes 0.25 FTE in Regions and 0.20 FTE at HQ)	0.45	\$62,721
319 Grant Administration and Provision of Technical Assistance with Applicants, DEQ Staff and Coordination with Other Funding Agencies	1.00	\$136,941
Columbia Basin NPS Collaboration and Provision of Technical assistance with Stakeholders and other Local, State, and Federal Agencies	1.00	\$152,764
NPS Policy Development, Collaboration and Provision of Technical assistance with Stakeholders and other Local, State, and Federal Agencies	2.00	\$285,652
Advice from Attorney General	--	\$8,912
TOTALS	9.45	\$1,301,492

DEQ's use of the "base" 319 funds meets EPA's guidelines in supporting state 319 programs and projects. States may use the base funds for the full range of activities addressed in their approved nonpoint source management programs. EPA allows states to use up to 20% of the base funds to develop NPS TMDLs (consistent with their TMDL development schedule) and watershed-based plans to implement NPS TMDLs; develop watershed-based plans in the absence of or prior to completion of TMDLs (incorporating the TMDL's load allocations once it has been completed and approved); develop watershed-based plans that focus on the protection of threatened waters, source water, or other high-priority unimpaired waters; and conduct other NPS monitoring and program assessment/development activities. (Monitoring the results of implementing a watershed project is not subject to this 20% limitation.)

4.2.2 Incremental Funds

In 2013, the \$756,508 319-Grant of "incremental funds" funded 26 projects in four areas of emphasis:

- TMDL Implementation (57.2%)
- BMP Implementation (22.4%)
- Pesticide Stewardship (11.1%)
- Information and Education (9.3%)

Incremental funds are restricted, per EPA's 319 guidance, but are principally to be used to develop and implement watershed-based plans that address nonpoint source impairments in watersheds that contain Section 303(d)-listed

waters. States may use up to 20% of incremental funds to develop NPS TMDLs, watershed-based plans to implement NPS TMDLs, and watershed-based plans in the absence of or prior to completion of TMDLs in Section 303(d)-listed waters (incorporating the TMDL's load allocations once it has been completed and approved). Note that "BMP Implementation" did not include implementation of BMPs identified in a TMDL Implementation Plan and "TMDL Implementation" primarily focused on effectiveness monitoring.

4.3 Project Implementation (2013 Activities)

4.3.1 Assessing Oregon's Basins

DEQ coordinates its work to protect and improve Oregon's water by following the watershed approach. DEQ uses the term "watershed" to describe an area of land that contains related waterways. These watersheds may be traditional basins, areas that drain into a single waterway or an area that contains similar waterways, such as a group of coastal rivers.

DEQ plans to cover the state's major basins in the next few years and then re-visit each to mark progress and reassess how to deal with lingering water quality problems.

DEQ completed its first Watershed Basin Status and Action Plans, which totaled three in 2013 (See Section 4.5.7 for more detail).

4.3.2 NPS Projects Funding by Basin/Subbasin

DEQ began collecting information about investments made within Oregon related to watershed restoration, protection, and water quality enhancements. DEQ has information from the following entities and funding sources but there is a need to work with partner agencies further to be able to align reporting categories and time frame.

The following is a summary of data submitted for the NPS Annual Report for this year:

Oregon Watershed Restoration Inventory (OWRI) <http://www.oregon.gov/OWEB/monitor/Pages/owri.aspx>

- Includes completed projects funded by OWEB grants, USFS and BLM, private landowners, and 319 at subbasin scale from 2012. NRCS funds used as match for OWEB grants are also included in this database.

Natural Resource Conservation Service data

(Not available on the web, available at subbasin scale through Cooperative Agreement)

- Includes NRCS funded projects that have been implemented within a given year at subbasin scale for 2009 and 2014. NRCS and OWEB categorize practices differently, so there is a need to complete a practice crosswalk between these agencies.

Drinking Water State Revolving Fund and Clean Water State Revolving Fund data

(Data was reported using a template provided by DEQ NPS program)

- Includes DWSRF and CWSRF funded nonpoint source projects that were awarded in 2013. It is possible to report these projects based on when they were completed.

SEE APPENDIX O FOR FULL LIST OF 2013 NRCS, 319, OWEB, CWSRF, AND DWSRF FUNDED WATER QUALITY PROJECTS BY BASIN/SUBBASIN (Example)

FUNDING SOURCE	SUBBASIN_HUC	YEAR	PROJECT NAME/ ACTIVITY	SUBBASIN_ACTUAL	BUDGET
NRCS EQIP	17050110	2012	Irrigation Pipeline Upland (agricultural BMPs)	Alsea, Siletz-Yaquina	\$13,894
319	17050110	2012			
OWEB	17050110	201			
CWSRF	17050110	2012			
DWSRF	17050110	2012			
NRCS EQIP	17050111	2012			
319	17050111	2012			
OWEB	17050111	2012			
CWSRF	17050111	2012			
DWSRF	17050111	2012			

4.3.3 Total Maximum Daily Loads (TMDLs) and Water Quality Management Plans

In 2012, EPA approved the Upper Klamath and Lost River Subbasins TMDL for dissolved oxygen, chlorophyll a, and pH. DEQ is currently reconsidering this TMDL. DEQ issued a TMDL for the Tualatin Subbasin, amending the 2001 TMDL, to provide waste load allocations for total phosphorus and ammonia at two new discharge locations. EPA approved this revised TMDL in December 2012.

4.3.4 Water Quality Standards

DEQ is working on the 2012 Integrated Report and 303(d) list of impaired waters needing TMDLs. For this report, DEQ piloted a rotating basin approach. This approach aligned the assessment with DEQ's Watershed Basin Status and Action Plans to focus resources and guide the agency's efforts to help protect, improve and enhance the quality of Oregon waterways. The objective of linking the Integrated Report efforts with the Watershed Basin Status and Action Plans is to ensure that these combined efforts provide a comprehensive evaluation of water quality and other environmental information resulting in basin-based water quality status and action plans. Using the updated 303(d) list, DEQ will develop a list of TMDL priorities for the next two years. DEQ will submit the report and 303(d) list to EPA in 2014 for review and approval.

In November 2013, EPA partially approved and partially disapproved revised water quality standards for the West Division Main Canal, a man-made irrigation canal near Hermiston, Oregon. DEQ completed a Use Attainability Analysis and the EQC adopted revised designated uses of the canal and water quality criteria to protect the new uses in April 2012.

DEQ is in the process of adopting amended water quality standards for turbidity. DEQ hopes to propose new standards to the EQC in late 2014 or early 2015. The standards will require EPA approval before they become effective.

In addition, in 2013, EPA disapproved key components of Oregon's temperature standard, consistent with a court order. DEQ is working on how these changes affect DEQ's implementation of the remaining effective temperature standard as well as how current litigation on temperature TMDLs and ESA consultation may impact future revisions to the temperature standards.

On Jan. 31, 2013, EPA took action on Oregon's aquatic life toxics criteria submitted in 2004. EPA approved criteria associated with 14 pollutants and disapproved criteria associated with 16 pollutants. On Dec. 12, 2013, DEQ adopted revisions to its water quality standards to address EPA's disapproval of 11 pesticides and the freshwater criteria for selenium. The adopted rules are currently undergoing EPA review. If EPA approves these revisions, the revised criteria become effective on April 18, 2014. The water quality standards program anticipates conducting several additional rulemakings to address the remaining disapproved criteria—ammonia, cadmium, copper and aluminum.

4.3.5 Cross Program Efforts to Address Toxic Chemicals

DEQ Toxics Reduction Strategy

DEQ finalized its Toxics Reduction Strategy in 2012, and began implementing five (5) priority short-term actions outlined in the strategy in 2013. Those actions include:

- (1) Integrating technical assistance across programs to advance green chemistry in two industry sectors
- (2) Develop and implement a pesticide waste collection strategy
- (3) Expand and enhance the Pesticide Stewardship Partnership Program
- (4) Develop and implement low toxicity state purchasing guidelines
- (5) Work with consumer product retailers to reduce toxics in products

Advancing Green Chemistry in two industry sectors and developing low toxicity state purchasing guidelines are also included in a 2012 Governor's executive order (#12-05) designed to further Green Chemistry innovation and

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demand in Oregon. In 2013, DEQ worked with the Department of Administrative Services and the Governor's Office to draft low toxicity specifications for a cleaning and janitorial supplies price agreement. This price agreement is now active, and is a partnership with the State of Washington and interested local governments that represents approximately \$20 million in purchasing power for the states that helps spur market demand for safer products. In addition, the expansion of the Pesticide Stewardship Partnership and pesticide waste collections was achieved through new funding support from the 2013 Oregon Legislature (see Section ___ for the PSP Program update)

More information on DEQ's Toxics Reduction Strategy can be found here: <http://www.deq.state.or.us/toxics/index.htm>.

General Permits for Pesticides

DEQ is developing a new permit (the 2000-J) for pesticide use in irrigation systems. DEQ conducted a public comment period on the proposed permit that ended in fall 2012. Until this permit is made available, pesticide use at irrigation systems can continue to use pesticide general permit 2300-A.

NPDES permits do not apply to agricultural stormwater discharges and irrigation return flow from irrigated agriculture because these are excluded from permitting under the Clean Water Act.

More information on these permits is available at this DEQ web site. <http://www.deq.state.or.us/wq/wqpermit/pesticides.htm>

Pesticides Stewardship Partnerships (PSPs)

The Pesticide Stewardship Partnership (PSP) approach uses local expertise in combination with water quality monitoring data to encourage and support voluntary management measures that lead to measurable reduction of pesticides in Oregon waters. This program has been supported by grants and other small sources of funding for over a decade. In 2013, the Oregon Legislature allocated funds to DEQ and the Oregon Department of Agriculture to implement and expand PSPs. This new stable funding allows DEQ and ODA to enhance work in existing PSP watersheds, add new PSP projects in two more watersheds around the state, conduct several pesticide waste collection events, and provide support for pesticide risk reduction technical assistance.

In 2013, PSP work continued in Eastern Oregon with partners in Hood River and Walla Walla River Watersheds, as well as watersheds in Wasco County. Outreach efforts continued to be focused on communicating PSP monitoring results and providing technical assistance to orchards. The 2013 monitoring data shows continued significant reductions in concentrations of diuron (herbicide) in the Walla Walla Watershed and malathion (insecticide) in Wasco County watersheds. In addition, levels of almost all pesticides in the Hood River Watershed remain well below relevant criteria or benchmarks.

In 2013, DEQ continued PSP work with partners in four watersheds in the Willamette Valley: Clackamas, Pudding, and Yamhill River, and Amazon watersheds. The monitoring locations in these watersheds are located in a range of agricultural, urban and forested areas. DEQ and ODA worked with other partners to identify sub-watersheds and streams in these Willamette Valley watersheds where pesticide water quality concerns are the greatest, and focus outreach and technical assistance efforts more intensively in those areas.

More information on the PSP program can be found here: <http://www.deq.state.or.us/wq/pesticide/pesticide.htm>

Water Quality Pesticide Management Team (WQPMT)

The Water Quality Pesticide Management team (WQPMT) is an inter-agency team composed of representatives from DEQ, ODA, DHS, and ODF. The WQPMT was formed to coordinate, communicate, support, and facilitate water quality protection programs, within the four agencies, related to pesticides in the State of Oregon. The WQPMT operates under a Memorandum of Understanding (MOU) established in 2009. ODA is the lead coordinating agency under the Environmental Protection Agency (EPA) - ODA Consolidated Pesticide Cooperative Agreement.

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The following WQPMT tasks were completed in 2013:

- The WQPMT reviewed pesticide-monitoring data in the context of EPA OPP Aquatic Life Benchmarks, which are used as a screening tool to evaluate monitoring data for pesticides of interest and pesticides of concern when numerical Water Quality Standards are unavailable.
- Evaluated 2011 pesticide monitoring data.
- Established 2012 Pesticides of Concern (POCs): azinphosmethyl, carbaryl, chlorpyrifos, diuron, ethoprop. Established 2012 Oregon Pesticides of Interest (POIs) to review 2, 4-D, atrazine, imidacloprid, metolachlor, metribuzin, metsulfuron-methyl, propiconazole, simazine, and sulfometuron-methyl.
- Coordinated activities with the Pesticide Stewardship Partnerships (PSPs). Involved in the planning and implementation of the PSPs. The PSPs are the primary source of monitoring data that are evaluated by the WQPMT.
- Ongoing coordination between the WQPMT (as a key stakeholder) and DEQ's toxic reduction programs, the newly proposed NPDES stormwater permit requirements and the Umatilla Basin artificial recharge feasibility project.
- NRD WQ staff continues to incorporate pesticide-related tasks (e.g. monitoring, outreach, coordination with PSPs, etc.) into SWCD scope of work contracts.
- Initiated discussions to help coordinate future pesticide monitoring efforts by DEQ and other local stakeholders.
- Numerous presentations to pesticide applicators, water basin personnel and growers regarding the WQPMT and issues we all face around the potential impact of pesticide use on the State's water quality.
- Held regularly scheduled WQPMT meetings to provide agency updates and for coordination.
- Continued communication among team members regarding changes in (1) pesticide label language on buffer requirements, (2) the impact of the NMFS rulings and EPA's actions on new use requirements under the Endangered Species Act, and (3) possible impacts of new NPDES permitting requirements for aquatic herbicides and mosquito abatement insecticides.
- Continued seeking consistent and relatively long-term sources of funding for pesticide monitoring programs.

Future Challenges:

- Expansion and coordination of PSP-type monitoring programs; integrated into overall WQPMT member activities. Expansion should include urban pesticide use and groundwater monitoring efforts.
- Determine ways of prioritizing allocation of limited pesticide monitoring and outreach resources at a smaller scale in watersheds.
- Possibly expand scope of WQPMT to include legacy pesticides and fertilizers.
- Watershed vulnerability assessments and prioritization.
- Coordination of state agencies in implementing management activities described in the PMP especially based on the assessment of monitoring data using the established Response Matrix.
- Standardize reporting of monitoring data and WQPMT assessments and recommendations.
- Develop consensus on how to assess the presence of mixtures in monitoring samples.
- Actively engage in policy discussions/decisions regarding the coordination and overlap of CWA-FIFRA issues.
- Minimize duplicate work by coordinating with TMDL, PSP and other management and monitoring efforts.
- Continue coordination with various DEQ toxics programs: Oregon Toxics Reduction Strategy.
- Continue to maintain and build communication between each agency's water quality programs and key stakeholders.
- Continue outreach, communication, and maintenance of interest/resources on pesticide impact on water quality.
- Pursue additional partnership opportunities with OSU.

4.3.6 Clean Water State Revolving Fund

In 2013, DEQ made Clean Water State Revolving Fund loans totaling more than \$6 million to two nonpoint source projects. Central Oregon Irrigation District (Redmond) is piping 4,500 feet of open canal resulting in conserved water flow within both the middle Deschutes and the lower Crooked Rivers; home to listed bull trout and reintroduced steelhead. Piping the districts open canal reduces evaporation, leakage, turbidity and reduces pollution from agricultural runoff.

The City of Ashland is taking advantage of DEQ's CWSRF loan through the sponsorship option and combining both a point source and nonpoint source project and qualifying for a lower interest loan. A majority of the loan is being used to restore eight miles of riparian area within the Bear Creek/Ashland Creek watersheds. The city's goal is to decrease water temperature by increasing shading. Creeks within the watershed are critical habitat for threatened Coho salmon.

Table 10. 2013 State Revolving Fund Activity on Nonpoint Source Projects

STATE REVOLVING FUND ACTIVITY ON NONPOINT SOURCE PROJECTS 2013										
SRF Loan #	Watershed	Project Title	Year	SRF Borrower	Loan Amount	Disbursements To Date	Remaining to Disburse	Project Status	Project Officer	Project Completion
R11751	BEAR CREEK WATERSHED	Bear/Ashland Creek Riparian Restoration	2013	City of Ashland	\$2,940,411	\$0	\$2,940,411	Not Started	Jaime Isaza	October 2018
R21641	MCKENZIE CANYON – DESCHUTES RIVER WATERSHED	Juniper Ridge Phase II	2013	Central Oregon Irrigation District	\$3,250,000	\$0	\$3,250,000	Not Started	Shanna Bailey	April 2015
TOTAL					\$6,190,411	\$0	\$6,190,411			

2011-2013 319-FUNDED PROJECT NUMBER W11622

Calapooia-Santiam Recruiting Landowners and Restoring Riparian Function

Project Location:

Middle Reach Calapooia River, Calapooia Subbasin, Upper Willamette River Basin.

Project Purpose:

Fencing for livestock exclusion and establishment of native riparian vegetation.

Photos Credit:

By Sarah Dyrdaahl Project Coordinator, Calapooia Watershed Council.

Before



**Post site preparation and fence installation.
Pre riparian planting. January 2012**

After



Post riparian installation. June 2013

Drinking Water Revolving Loan Fund

In Oregon, the Drinking Water Revolving Loan Fund (DWRLF) is administered by the Oregon Health Authority (OHA), the state agency that regulates drinking water under state law and the Safe Drinking Water Act. OHA works cooperatively with DEQ on source water protection efforts. Money from the DWRLF is used to fund:

- Source Water Protection Grants (up to \$30,000) to fund source water protection activities, monitoring, and planning in Drinking Water Source Areas (DWSAs);
- Loans for improving drinking water treatment, source water protection activities, or land acquisition in DWSAs; and
- DWRLF set-asides for administration fund five Drinking Water Protection positions at Oregon DEQ, which delineate DWSAs, integrate Clean Water Act programs (including the NPS Program) with source water protection needs, provide technical assistance to public water systems, and research NPS impacts on surface and ground drinking water sources.

In 2013, a total of six DWRLF projects were recommended for funding with funding awards totaling \$171,000. Projects recommended for funding that address NPS activities include pesticide roundup events, development and implementation of a social marketing approach to address nitrate in groundwater, and enhancement of wetland areas for stormwater treatment.

OWEB

The Oregon Watershed Enhancement Board (OWEB) is a state agency that provides grants to help Oregonians take care of local streams, rivers, wetlands and natural areas. OWEB grants http://www.oregon.gov/OWEB/GRANTS/pages/grant_faq.aspx are funded from the Oregon Lottery, federal dollars, and salmon license plate revenue. OWEB offers a variety of grant types and programs. The OWEB mission of restoring, maintaining, and enhancing watersheds implicitly recognizes that specific goals for improvement will vary between watersheds.

OWEB has the following grants for the various watershed improvement activities identified in watershed assessments, action plans, restoration plans, and other plans such as DEQ's TMDLs and Water Quality Basin Status and Action Plans, local Watershed Plans prepared by Watershed Councils. These plans focus on water quality improvements to meet water quality standards and TMDL load allocations. These grants are also used to do habitat, stream, and fish and wildlife restoration projects.

Oregon Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP) is a state and federal partnership that allows landowners to receive incentive payments and conservation rental payments from the USDA Farm Services Agency for establishing long-term riparian buffers on eligible land. The Oregon CREP was approved in 1998. As an offspring of the Conservation Reserve Program, CREP is a voluntary program for agricultural landowners. http://www.oregon.gov/OWEB/GRANTS/pages/crep_tech_assist_grants.aspx

In 2013, the CREP funded the following projects:

4.3.7 Drinking Water Protection

Approximately 75% of Oregon's citizens get their drinking water from public water systems. Oregon's drinking water protection program works to implement strategies ensuring the highest quality water is provided to the intakes and wells. DEQ is responsible for source water protection which includes minimizing the risk to the source water before it reaches the surface water intake for a public drinking water system. DEQ uses Clean Water Act tools and pollution prevention to minimize treatment costs and reduce public health risk. When source waters meet Clean Water Act water quality standards, then standard treatment technology should be sufficient to produce safe drinking water. Source Water Assessments that identify risk associated with land management activities have been completed

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for all public water systems; refer to DEQ's drinking water website for more information: <http://www.deq.state.or.us/wq/dwp/dwp.htm>.

The following tasks were completed in 2013:

- Contributed to ongoing source assessment and linkage analysis in Mid Coast Sediment TMDLs to address drinking water and biocriteria impairments in the basin.
- Participated in Highway 36 pesticide exposure investigation as member of state and federal agency group.
- DWP supplied maps and data addressing Western Oregon O&C forest issues and the effects of forest management on drinking water quality.
- Assisted The Dalles in obtaining emergency DWSRLF grant to fund seeding and mulching in their municipal watershed following a fire.
- Implemented strategies for nitrate reduction in Irrigon's groundwater source area.
- Assisted Clackamas River Water Providers, the Clackamas SWCD and their partners with a technical assistance program for residential on-site systems, a follow-up pesticide roundup event, and installation of 10 prescription drop-off boxes in local law enforcement offices and outreach materials to encourage proper disposal.
- Collaborated with a Douglas SWCD and ODA project to assess watershed conditions and conduct landowner outreach within priority South Umpqua Basin drinking water source areas.
- Prepared data and comments for ODA staff on Agricultural Water Quality Management Plans for several basins in Oregon.
- Supplied maps, data, and write-ups on drinking water resources and quality for the Umpqua basin Watershed Assessment.
- Assisted City of Florence and the Siuslaw Watershed Council develop an aquifer protection plan that includes land use planning and policy amendments to protect resources within the aquifer boundary.
- Prepared information on harmful algal blooms for Regional Solutions Teams and assisted basin coordinator with Cyanotoxins testing below Dexter Lake dam.
- Encouraged protection strategies on a watershed scale basis in the Rogue, Umpqua, Siletz, Tualatin, and Clackamas sub-basins.
- Supplied maps and scientific information to municipalities and watershed councils regarding source water protection, land use, and climate change.

4.3.8 Groundwater Management Areas

Groundwater Management Areas (GWMA) are designated by DEQ when groundwater in an area has elevated contaminant concentrations resulting, at least in part, from Nonpoint sources. Once the GWMA is declared, a local Groundwater Management Committee comprised of affected and interested parties is formed. The Committee then works with and advises the state agencies that are required to develop an action plan that will reduce groundwater contamination in the area. Oregon has designated three GWMA because of elevated nitrate concentrations in groundwater.

These include the [Lower Umatilla Basin GWMA](#), the [Northern Malheur County GWMA](#), and the [Southern Willamette Valley GWMA](#). Each one has developed a voluntary action plan to reduce nitrate concentrations in groundwater.

DEQ's objectives for groundwater quality protection in the future include the following activities:

- Continued sampling of Northern Malheur County GWMA well network consisting of 36 wells sampled quarterly. The next regional trend analysis is scheduled for early 2013.
- Continued sampling of Lower Umatilla Basin GWMA well network consisting of 31 wells sampled quarterly.
- Complete the document titled Third Four-Year Evaluation of Action Plan Success in the Lower Umatilla Basin GWMA that is currently in preparation.
- Once the Third Four-Year Evaluation of Action Plan Success in the Lower Umatilla Basin GWMA is finalized, the next Lower Umatilla Basin GWMA Action Plan will be prepared.

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- Complete the Communications and Outreach Plan that the Lower Umatilla Basin GWMA Committee is currently working on.
- DEQ will work with the City of Irrigon to develop their voluntary Source Water Protection Plan.
- Coordinate the Southern Willamette Valley GWMA committee and implement actions to reduce area-wide groundwater contamination.
- Continue monitoring 41 wells in the Southern Willamette Valley GWMA to determine groundwater trends, and then reduce to an appropriate number based upon individual well trends. Provide EPA samples for stable isotopes analyses.
- Provide support for grants obtained by EPA and Benton SWCD that will evaluate the effectiveness of conservation enhancement practices in reducing nitrate pollution to the groundwater in the Southern Willamette Valley GWMA.
- Use a social marketing approach to facilitate behavior change regarding groundwater protection. Based on the results of these focus groups, we will design the most appropriate messages aimed at incorporating groundwater protection into the daily life of those GWMA residents.
- Update the Southern Willamette Valley Action Plan, to reflect activities that have been completed, and include additional voluntary strategies that were not part of the original Action Plan.
- Use the groundwater analyses and outcomes of the social marketing process to direct future work and GWMA Committee meeting topics.
- Start looking at funding sources for the Southern Willamette Valley GWMA, which may become a non-profit entity.
- Evaluate the potential nitrate impact to a 'deeper' aquifer in the Linn County area of the Southern Willamette Valley GWMA.
- Continue to implement the Lower Umatilla Basin and the North Malheur County GWMA Action Plans and evaluate the performance or success of the management plans in reducing groundwater contamination. Also, continue regional groundwater monitoring networks in the two GWMA's.
- Continue to work cooperatively with Deschutes County to implement groundwater protection programs in the La Pine area.
- Complete additional Drinking Water Source Water Assessments as new systems come online and provide technical assistance to communities developing drinking water protection plans.
- Continue funding and support of research, education, and implementation of BMPs for groundwater protection, as funding allows.

Northern Malheur County GWMA

The Northern Malheur County (NMC) GWMA was declared in 1989. An Action Plan was adopted in 1991 that identifies the source of contamination and measures to be taken to reduce the contamination. The nitrate trend in the Northern Malheur County GWMA is slightly declining.

The following NMC GWMA tasks were completed in 2013:

- Continued sampling of NMC GWMA well network consisting of 36 wells and 2 surface water drains.

Lower Umatilla Basin Groundwater Management Area

The Lower Umatilla Basin (LUB) GWMA was declared in 1990. An Action Plan was adopted in 1997 that details the sources of nitrate and measures to be taken to reduce the nitrate contamination. The nitrate trend in the LUB GWMA continues to increase, although at a slower and slower rate.

The following LUB GWMA tasks were completed in 2013:

- Continued sampling of LUB GWMA well network consisting of 33 wells.
- The document titled *Third Four-Year Evaluation of Action Plan Success for the Lower Umatilla Basin Groundwater Management Area*, <http://www.deq.state.or.us/wq/groundwater/docs/lubgwma/EvalActionPlanSuccess.pdf> was finalized.

Southern Willamette Valley GWMA

The Southern Willamette Valley has been the focus of studies for 20 years because of concerns about elevated levels of nitrate in the shallow groundwater. The nitrate contamination originates from many everyday sources, such as fertilizer, septic systems, and animal waste. In 2004, DEQ designated the Southern Willamette Valley as Groundwater Management Area (GWMA) to help ensure that Willamette Valley groundwater could continue to provide a high quality resource for present and future use. Since then, local stakeholders have been engaged in planning to protect and improve the groundwater resource in the Southern Willamette Valley. To view the website for this project, go to <http://gwma.oregonstate.edu/>.

DEQ continues to monitor the 24 monitoring wells DEQ installed in the Southern Willamette Valley, as well as the 17 domestic wells that make up the a long term monitoring program. In 2013, DEQ conducted a focused pesticide and nitrate sampling of 33 wells in the vicinity of two small public water systems that had reported 12 pesticides in a 2012 USDA study. DEQ is now looking at revising the long-term monitoring program to better focus on areas with changing trends. In addition, EPA continues to run stable isotopic analyses on surface and groundwater samples collected by the DEQ Lab.

The following tasks were conducted in 2013

- Two Focus Groups (one for Rural Residents and second for Agricultural employees/employers [SWV GWMA growers]) were held to understand the perceptions, knowledge and barriers each group had regarding groundwater quality protection.
- For the fourth year, the GWMA Booth was a major hit at the *Daffodil Festival* event at the Long Tom Grange near Junction City. This is where kids can create an edible aquifer, polluted it with their land use of choice (fertilizer, manure, pet waste and/or pesticides – all edible replicates). In addition, they then added rain to the system, and followed that by drilling a well (straw) to learn how easy groundwater –and their drinking water - can be polluted.
- DEQ tested the over 30 domestic wells for pesticides. Six pesticides were detected in the domestic wells; however, those pesticides were present at low parts per trillion levels.
- Two successful grants (written by Benton SWCD and EPA) has allowed for the installation of over 30 Lysimeter on actual working farms. This will make it possible for these GWMA partners to collaborate on the evaluation of fertilizer management practices. The Willamette Partnership will also be a contributor to this work, and will develop a groundwater protection module for the Nutrient Tracking/Trading project.
- DEQ continues to monitor the 24 monitoring wells DEQ installed in the Southern Willamette Valley, as well as ~ 17 domestic wells.
- The Southern Willamette Valley GWMA Committee continues to meet 3-4 times a year, to address and assess ongoing issues. Meetings continue to draw 30-40 people who are willing to travel to Harrisburg Oregon at 8:00 AM to hear and talk about groundwater quality – even after 9 years of meetings!
- Students from a Lane County High school who have been participating with DEQ Laboratory in the collection of ‘split samples’, now have set up their own ‘nitrate testing shop’ at their school, and are offering free nitrate testing to the community.

Southern Willamette Valley GWMA at the Daffodil Festival

One of the Southern Willamette Valley GWMA partners (OSU Extension) offers free nitrate testing at various events. In addition, Edible Aquifers are activities that bring children and their parents into the GWMA booths at appropriate venues.



Southern Willamette Valley GWMA – Lysimeter Project

Often, over-irrigation can push nutrients below the root zone. A recently funded EPA grant for the SWV GWMA will help to evaluate what fertilizer and irrigation management strategies are more protective of groundwater quality. Over 30 Lysimeter have been installed at 12 locations, and an irrigation/rainfall monitoring system is co-located with each Lysimeter grouping. Soil water from the Lysimeter will be sampled for 2 years, and samples analyzed for nitrate, phosphorus, and stable hydrogen and oxygen isotopes.



4.3.9 Coastal Zone NPS Program

Oregon's Coastal Nonpoint Pollution Control Program (CNPCP) is being developed in compliance with requirements adopted as part of the National Ocean and Atmospheric Administration (NOAA) Coastal Zone Act Reauthorization Amendments of 1990 (CZARA).

The CNPCP developed by DEQ and DLCD received approval by NOAA and EPA, with the exception of three components that were conditionally approved:

1. New development.
2. Operating onsite disposal systems.
3. Additional management measure for forestry.

On December 20, 2013, NOAA and EPA issued a notice of public comment in the *Federal Registrar Docket: Proposed Disapproval Findings of Oregon's Coastal Nonpoint Program* <http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/OR%20CZARA%20Decision%20Doc%2012-20-13.pdf>

NOAA and EPA state that “the document contains the bases for the proposed determination by the NOAA and the EPA that the State of Oregon (State) has failed to submit an approvable Coastal Nonpoint Pollution Control Program (Coastal Nonpoint Program) as required by Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), 16 U.S.C. 1455b. NOAA and EPA arrive at this proposed decision because the federal agencies find that the State has not fully satisfied all conditions placed on the State's Coastal Nonpoint Program.”

The public notice document also includes a request for public comment on the adequacy of the State's programs and policies for meeting the 6217(g) agriculture management measures and conditions placed on Oregon's Coastal Nonpoint Program. EPA and NOAA state “Then in 2004, NOAA and EPA provided Oregon with an interim approval of its agriculture conditions, believing that the State had satisfied those conditions. More recently, the federal agencies have received comments that raise concerns about the adequacy of the agricultural measures to achieve this goal.”

The following three management measures have received “conditional approval”:

- Management Measures for Urban Areas, Urban Runoff: Operating Onsite Disposal Systems Management
- Management Measures for Urban Areas, Urban Runoff: New Development
- Additional Management Measure, Forestry
 - Protect medium, small, and non-fish bearing streams
 - Protect high-risk landslide areas
 - Effectively address the impacts of road operation and maintenance, particularly legacy roads; and
 - Ensure the adequacy of stream buffers for the application of certain chemicals

Oregon is addressing the three remaining management measures in the following ways in order to gain program approval:

- Management Measures for Urban Areas, Urban Runoff: Operating Onsite Disposal Systems Management.
 - Oregon will address onsite septic system issues through a time-of-property transfer inspection program to ensure septic systems are inspected when a property in the coastal zone area changes hands.
- Management Measures for Urban Areas, Urban Runoff: New Development.
 - DEQ will issue “Guidance”.
 - DEQ and DLCD will train local governments and other stakeholders about the guidance and help them develop effective stormwater management plans.
- Additional Forestry Measures Addressing Medium, Small And Non-Fish Bearing Streams, High-Risk Landslide Areas, The Impacts Of Road Operation And Maintenance, Particularly Legacy Roads.

Oregon Nonpoint Source Program 2013 Annual Report

- On July 1, 2013, Oregon submitted its plan to address the additional forestry measures. The state's submittal included a description of Oregon's regulatory and policy framework for managing private forestlands to ensure protection of water quality and associated beneficial uses.
- This framework involves a comprehensive, science-based program of regulatory and voluntary measures that includes periodic evaluation and course correction to ensure environmental outcomes can be achieved.
- Ongoing investment in monitoring to update the *Sufficiency Analysis: A Statewide Evaluation of Forest Practices Act Effectiveness in Protecting Water Quality* by: Oregon Department of Forestry and Oregon Department of Environmental Quality, October 2002 <http://www.deq.state.or.us/wq/nonpoint/docs/suffanalysis.pdf> to determine the effectiveness of rules, with a commitment to making adjustments as necessary to meet standards.
- Oregon and other partners have invested in long-term evaluations of water quality in several areas containing streams where there are no fish.
- Enhancement of landslide protections, with rules that require leave trees along slide-prone streams, to slow downstream movement and add large wood to streams.
- Forestland owners must also avoid locating roads, must not build skid roads, and must prevent deep or extensive ground disturbance during log felling and yarding in high-risk landslide areas.
- Oregon's Environmental Quality Commission and Board of Forestry work closely together to achieve compliance with water quality standards on forestlands.
- Current Board of Forestry consideration of additional protections for small- and medium-sized streams where fish are present based on recent scientific findings that current rules might not sufficiently protect these streams from temperature increases after harvest.
- New rules adopted in 2002-03 addressing forest roads, including avoiding road construction in critical locations, limiting road use in wet weather, and requiring drainage systems that direct runoff away from streams.
- Older roads are addressed through voluntary measures (more than \$93 million in landowner investment), and Forest Practices Act restrictions on delivering sediment to streams still apply.
- In addition, key to Oregon's framework is a strong land-use system that seeks to conserve working forestlands.

**2013 319-FUNDED PROJECT NUMBER 019-12
(Project completed in 2013 with a grant that was extended)**

Project Location:

Green Property on Jewel Creek, Sandlake Watershed, North Coast Basin.

Project Purpose:

Establishment of riparian vegetation and exclusion of livestock from riparian and wetland zones associated with Jewel Creek.

Photos Credit:

By Tom McDermott, Contractor with Nestucca Neskowin Watershed Council.

Project Summary:

DEQ completed a site tour of the NNWC project completed as part of the grant #019-12 in spring of 2013. This site on Jewel Creek is a large riparian project that has significant riparian setbacks that encompass adjacent wetlands and exclude dairy cows with fencing and planting along both sides of the creek. The site was completed to DEQ requirements laid out in the grant contract with healthy plants and plant establishment on track to meet the 3-year “free to grow” goal. The Green site was an excellent example of riparian and wetland restoration project and included a combination of shrub, willows and conifers species. Its implementation followed successful techniques established on previous 319 funded projects like the Miami Wetland restoration project. In addition, the Green site on Jewel Creek was a great success with large fenced setbacks established through a ongoing partnership with Tillamook Soil and Water Conservation District and ODA.







4.3.10 Monitoring and Data

DEQ conducts various types of monitoring as required by the state statute and federal CWA.

The existing monitoring programs that address NPS pollution include, but are not limited to:

- TMDL Development – Collect data to develop TMDLs for 303(d) listed streams. The data is used for a subbasin scale cumulative effects analysis for the development of the TMDLs.
- Groundwater – Identify areas of groundwater contamination and determine trends in Groundwater Management Areas.
- Large River Ambient – Collect data for long term trending at fixed sites across the state.
- Volunteer Monitoring – Improve data quality collected by third parties and increases the data accessibility for local and state assessments.
- Coastal Environmental / Bacteria Monitoring – Collects data to determine the need for beach advisories.
- Toxics Monitoring - Toxics Monitoring Project for surface waters in watersheds across Oregon. This project will give information about current and emerging contaminants that threaten aquatic life and human health. Pesticide Stewardship Partnership - Collaborative approach to monitoring pesticide in agricultural areas. Data identifying current use pesticides found in surface water is shared with growers to help them target management practices that reduce pesticides in water.

Statewide Watershed-based Toxics Monitoring Program.

The Toxics Monitoring Program collects data that supports the Agency's mission of protecting the environment and human health from the effects of toxics pollutants. This information may identify new problem areas or validate earlier findings. In 2013 DEQ collected toxics data in coastal watersheds and southeast Oregon completing a statewide sweep. As a continuation of a rotating basin approach, the DEQ laboratory staff collected and analyzed surface water samples from approximately 80 locations in coastal basins.

In conjunction with ODFW and ODA, shellfish were collected at approximately 15 locations. Collection of surface water samples occurred during three hydrologic periods in order to assess the impacts of differing flow regimes on contaminant concentrations as well as investigate seasonal use patterns. Collections occurred in the spring (May-June), summer (August-September) and fall (November). Analysis of the surface water samples for a broad suite of organic pollutants including current use pesticides, pharmaceutical and personal care products, industrial chemicals and chemical/combustion by-products and priority pollutant metals is currently underway at the laboratory.

Staff from the Toxics Monitoring Program are currently working on a statewide report of the finding of the toxic monitoring program. Information from this report will be used to develop a long term toxics monitoring network in 2015 and beyond. In addition, some samples filling some gaps in toxics information will be collected in 2014.

Lower Mid-Columbia River Ecological Assessment

In 2013, data from the Lower Mid-Columbia River Ecological Assessment was used by the Oregon Health Authority to create a fish consumption advisory for mercury in fish tissue between Bonneville and McNary dams on the Columbia River.

Volunteer Monitoring Coordination.

DEQ conducted outreach and education activities and provide technical assistance to support volunteer monitoring in watersheds throughout Oregon. Staff reviewed and assisted in the development of three sampling plans for organizations and worked with additional organizations to refine monitoring strategies or goals outside of the sampling plan process.

Sampling Plans Reviewed:

1. Johnson Cr Watershed Council
2. Powder River Watershed Council
3. Rogue Valley Sewer Services

Staff provided high quality water quality testing equipment or supplies to 25 different organizations. There are approximately 50 organizations currently with equipment around the state. Provided technical assistance on equipment and protocols to approximately 20 organizations over the phone and conducted three trainings in water quality monitoring techniques.

Staff also worked to coordinate sampling projects in the Middle Willamette and Mid Coast basins focused on NPS pollution impacts that provide data for TMDL implementation in these basins, and worked with stakeholders to characterize NPS *E. coli* pollution in The Dalles.

Groundwater Management Areas.

DEQ staff performed routine sampling of three Groundwater Management Areas (GWMAs) in the state. The Lower Umatilla Basin, Northern Malheur County, and Southern Willamette Valley GWMAs are sampled four times per year. In addition, 30 domestic wells and 3 irrigation wells in the Corvallis area were sampled for nitrates and pesticides in response to finding from a USDA study in 2012 that identified pesticides in the drinking water at two schools in the area.

4.4 Land Uses

4.4.1 Agricultural Lands

4.4.1.1 Oregon Department of Agriculture

DEQ's Nonpoint Source program works with ODA's Natural Resource Division to prevent pollution and improve water quality on agricultural lands. DEQ and ODA's program staff and management work collaboratively on various water quality related projects to address agricultural nonpoint sources.

Coordination highlights

- DEQ and ODA continued to work on implementing a Memorandum of Agreement that was finalized in May 2012. The MOA is intended to guide the agencies to fulfill respective legal responsibilities and obligations in an efficient and effective manner.
- DEQ's basin coordinators and ODA staff have ongoing working relationships with the review and implementation of Agricultural Water Quality Management Area Plans, as well as local water quality issues related to drinking water as resources allows. In 2013, DEQ participated in biennial reviews by providing written comments and presenting water quality related information at LAC meetings. DEQ submitted formal comments on nine area plans.
- ODA went through a strategic planning process in 2012, which resulted in Resolution 331 by the Board of Agriculture in March 2013. The resolution supports ODA to establish a strategic program implementation process that identifies key geographic areas (strategic implementation areas) and targets resources to achieve compliance with local water quality regulations. The Board of Agriculture resolution noted that the effort should be founded on the basic conservation principles of erosion control, nutrient management, stream bank stabilization, and moderation of solar heating of streams, promoted by aligning resources with local, state and federal natural resource partners.
- ODA began working on developing streamside vegetation assessment methodologies for their Ag Water Quality Management program in 2013. DEQ participated on the technical advisory committee for the development of vegetation assessment methodologies. ODA issued a guidance document in November 2013.

- DEQ and ODA also held a series of coordination meetings to review streamside vegetation assessment, discuss how Agriculture could meet effective shade targets specified in various TMDLs, and other topics related to agricultural nonpoint sources.

Agricultural Water Quality Management Program

In 2013, ODA initiated nine light biennial reviews (no formal revisions are made to area plans and rules) and five regular reviews. DEQ’s regional staff provided formal comments on area plan revisions under nine biennial reviews. (Four light reviews and five regular reviews)

DEQ’s The area plans as well as the reports can be found at the following link: http://egov.oregon.gov/ODA/NRD/water_agplans.shtml.

ODA’s Water Quality Program Compliance Summary

The Agricultural Water Quality Management Act (ORS 568.900 to 568.933) authorizes ODA to develop Agricultural Water Quality Management Area Plans (area plans) throughout the state. The statute also authorizes the development of Agricultural Water Quality Management Area Rules (area rules) to serve as a regulatory backstop to the voluntary efforts described in the area plans. ORS 561.191 says that ODA shall develop and implement any program or rules that directly regulate farming practices to protect water quality.

The following figures are based on calendar year 2013, and the data was provided by ODA.

Figure 2. In 2012, 66 new cases were filed by the public, ODA, & other agencies. ODA followed up by conducting site visits. The majority of compliance cases were in the Willamette Valley.

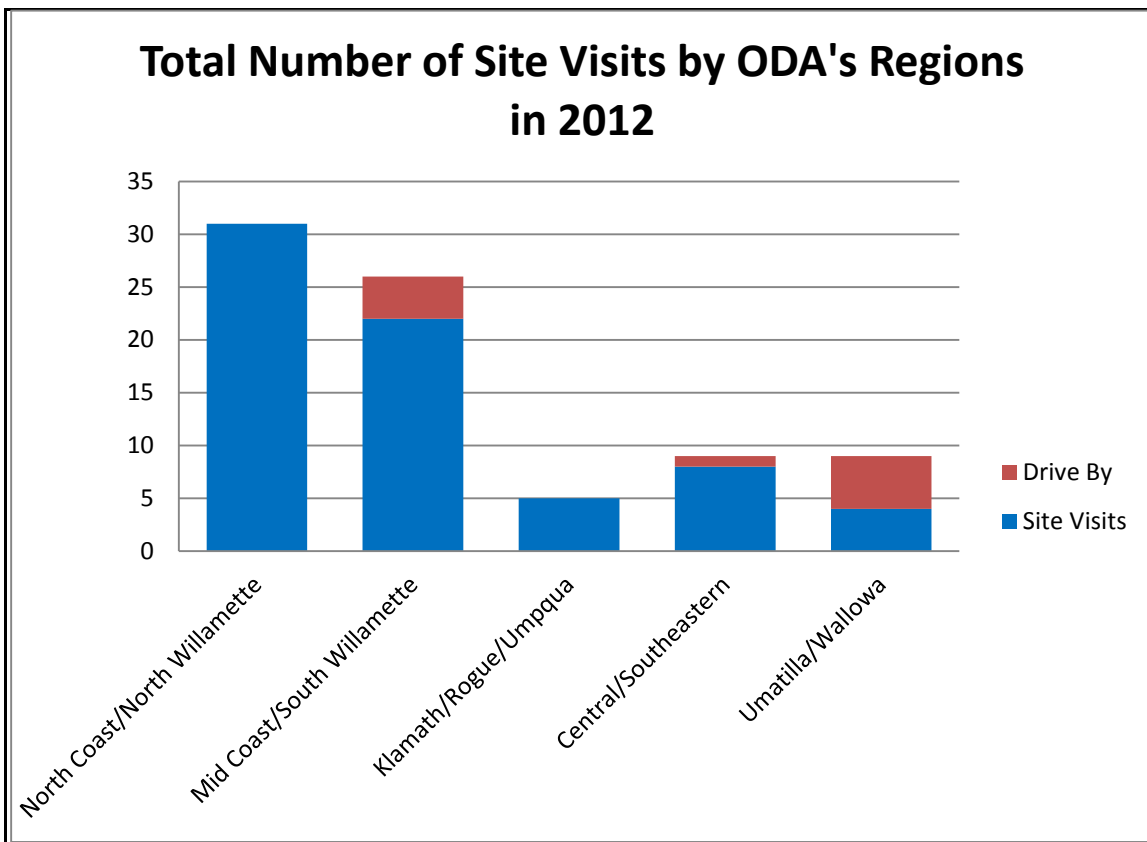


Figure 3. In 2013, more compliance investigations were initiated due to issues related to manure management than other water quality issues.

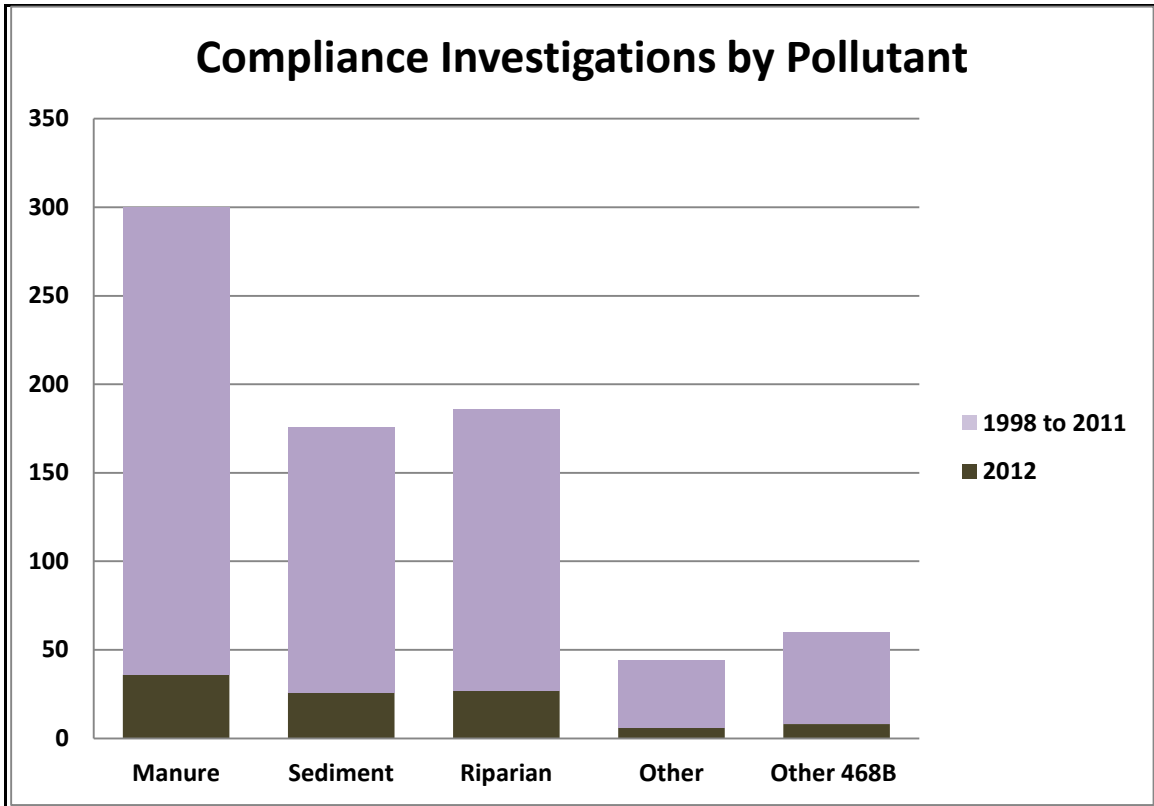


Figure 4. In the past fourteen years, there have been 582 compliance investigations. Over half of the complaints were submitted by the public. In 2013, DEQ referred 23 cases to ODA.

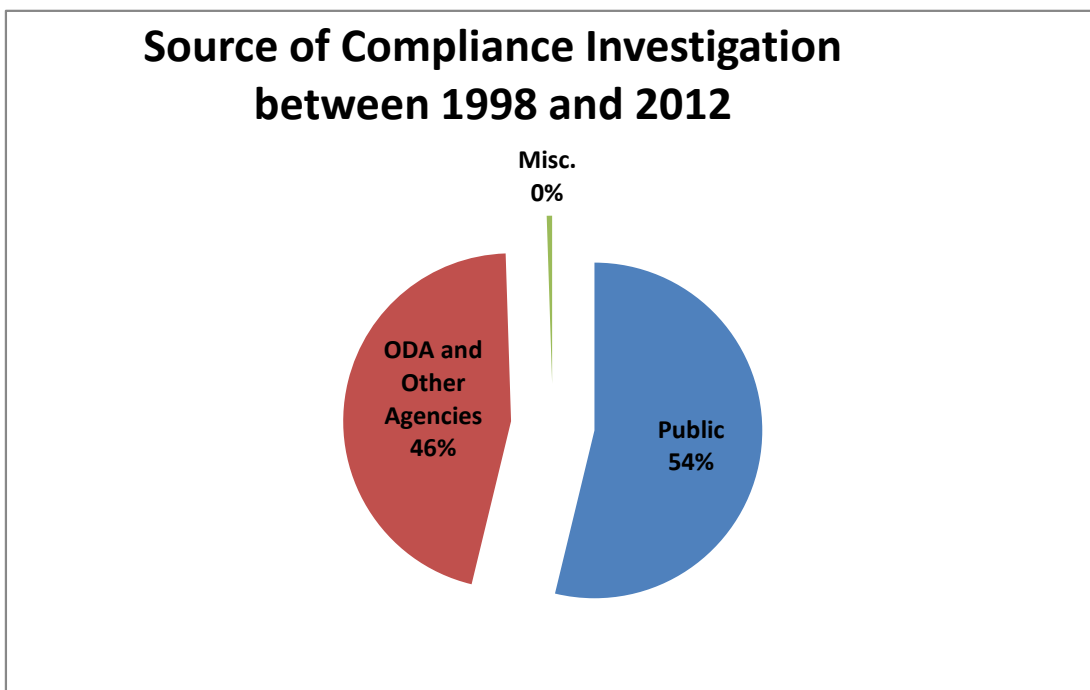
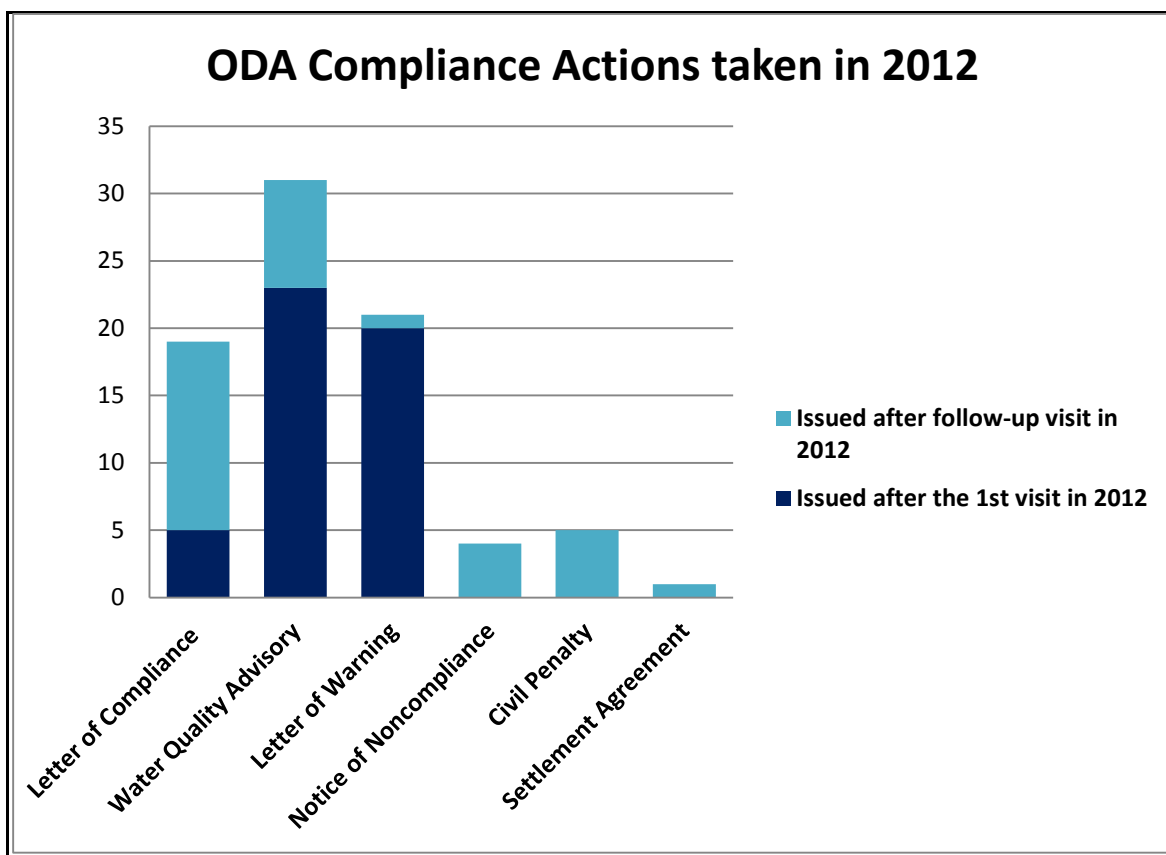


Figure 5. Eighty-one (81) actions were taken in 2013. Four notices of noncompliance (an enforcement order), five civil penalties, and one settlement agreement were reached in 2013. In addition, 18 cases were either dropped due to lack of authority or referred to other agencies with jurisdiction, and 11 "fix it" letters (issued prior to advisory and warning letters) were issued.



Outreach and Education Summary

ODA provides funding to 45 Soil and Water Conservation Districts for implementation of water quality programs. One of the core components of the water quality program at ODA is its relationships with the SWCDs. ODA and the SWCDs negotiate scope of work agreements to clarify conservation projects to be completed. In Fiscal year 2011, the SWCDs used various venues to reach agricultural producers and rural land residents to promote conservation practices. Additional information on conservation practices is captured under funding partner section.

Table 11. SWCDs Outreach and Education Summary (2012-2013)

SWCDs Outreach and Education		
	# Events	Attendance or distribution
Presentations	213	7002
Demonstrations	24	598
Tours	73	1507
Displays	127	38457
Student Events	201	16171
Fact Sheets	62	20265
Newsletter articles	579	54641

Table 12. SWCD Compliance Activities

Number of Site Visits	2689
Water Quality Monitoring Sites	470

Management area specific information on the SWCD activities is available upon request.

4.4.1.2 Federal Agencies

National Water Quality Initiative

In 2013, EPA directed the states to conduct effectiveness monitoring using 319 funds in NWQI watersheds where the Natural Resources Conservation Service identified to improve water quality by focusing its investments. In 2013, EPA awarded technical assistance grant for Oregon to develop monitoring plan for Fifteenmile and Willow NWQI effectiveness monitoring projects. DEQ and its partners will be developing and implementing the effectiveness monitoring projects in those watersheds during 2014-2019.

Conservation Effectiveness Partnership

In 2013, DEQ continued to meet with USDA-NRCS, Oregon Water Enhancement Board (OWEB), and ODA to evaluate the impacts of grant investments on water quality and watershed health. Although the partner agencies did not finalize the reports on two “pilot watersheds,” the Wilson River in Tillamook Bay, and Wychus Creek along the Upper Deschutes River, they committed to work on National Water Quality Initiative monitoring projects in 2014 as resources allow.

4.4.2 State and Private Forest Lands

RipStream (Riparian Function and Stream Temperature)

The Oregon Department of Forestry (ODF)'s RipStream project has been developed to provide a coordinated monitoring effort with which to evaluate effectiveness of Oregon Forest Practices Act (FPA) rules and strategies in protecting stream temperature, and promoting riparian structure that provides necessary functions for the protection of fish and wildlife habitat. DEQ is participating in the RipStream project by providing 319 funds and assisting in analyses of data and study results in cooperation with ODF staff.

In order to meet this objective, the following questions were addressed:

1. Are the FPA riparian rules and strategies effective in meeting DEQ water quality standards regarding anti-degradation of stream temperature and the water quality standard?
2. Are the FPA riparian rules and strategies effective in maintaining large wood recruitment to streams, downed wood in riparian areas, and shade?
3. What are the trends in riparian area regeneration?
4. What are the trends in overstory and understory riparian characteristics? How do they along with channel and valley characteristics correlate to stream temperature and shade?

ODF's initial analysis showed that current riparian protections on fish-bearing streams on private lands are inadequate to meet water quality standards for temperature. In this study, streams in State Forests are meeting both numeric and Protecting Cold Water (PCW) criteria of the temperature standard. However, streams on private forests are not meeting the PCW criterion. Private streams are typically meeting the numeric criteria, although 3 of 18 experimental stream reaches showed an exceedance due to harvest. It should be noted that the starting temperatures in these streams are usually far below the numeric targets.

Streams managed by private land riparian rules showed a post-harvest average increase of 0.7 degrees C in the daily maximum temperature. State forest rules resulted in no change in the average daily maximum.

Subsequent analysis has shown that reductions in shade are the primary factor driving these temperature changes, and shade decreases are primarily connected to lower basal areas. These results demonstrate the need for changes in riparian protection rules for private forestlands in Oregon. More recent analysis for the rule change have shown that substantial increases in riparian protection will be needed on private lands. DEQ has also worked with ODF on the MidCoast Sediment TMDLs, working cooperatively to evaluate the impact of forest practices on sediment regimes and aquatic life during the source assessment.

In 2013, the following was accomplished:

- ODF (in cooperation with and assisted by DEQ) conducted a systematic review of the scientific literature around riparian stream protection in forest harvest. They also analyzed data from the RipStream study to determine what level of riparian protection will be needed in the revised rules.
- ODF staff and others, partly funded by a 319 grant, conducted a modeling analysis and wrote a manuscript for publication examining transmission of heat from harvest units through shaded downstream reaches using the RipStream data, further bolstering the need to protect thermal regimes.

4.4.3 Federal Forest Lands

DEQ/USFS MOU.

A final draft of the Memorandum of Understanding between U.S. Department of Agriculture-Forest Service's Pacific Northwest Region and State of Oregon Department of Environmental Quality to meet state and federal water quality rules and regulations was completed. Clean Water Act (CWA) Section 319(k) directs federal compliance with the "Oregon Nonpoint Source Pollution Plan" which identifies the need for Federal Agency MOUs. This Oregon plan states: "*MOUs will be developed to ensure that federal land management agencies comply with federal CWA and state water quality requirements and programs*".

Next year in 2013, as was done for the recent updating of the BLM and DEQ MOU <http://www.deq.state.or.us/wq/nonpoint/docs/USFSDEQMOU.pdf>, DEQ will be providing a 15-day public review and comment period. DEQ is not holding a public hearing about this memorandum and will not be issuing a response to comments. DEQ will be taking written comments on this final draft memorandum and will review and consider all comments received during the public comment period. Following this review, DEQ will modify the memorandum if necessary, approve and sign.

DEQ/BLM MOU.

DEQ and BLM water quality staff throughout 2013 reviewed the MOU and communicated to keep abreast of any major DEQ or BLM water quality issues, such as:

BLM Planning Update for Western Oregon Forests.

In March 2012, the Bureau of Land Management (BLM) began the process of revising the Resource Management Plans (RMPs) for 2.5 million acres of forested lands across six BLM Districts in western Oregon. BLM intends to revise six RMPs with an associated EIS for the Western Oregon Planning Area. BLM has begun the scoping process, to determine the scope of issues to be addressed by the environmental analysis, including alternatives and the significant issues related to the planning process.

The RMPs for Western Oregon will determine how the BLM-administered lands in western Oregon will be managed to further the recovery of threatened and endangered species, to provide for clean water, to restore fire-adapted ecosystems, to produce a sustained yield of timber products, and to provide for recreation opportunities.

There are approximately 2.5 million acres in western Oregon that are part of the BLM-administered public lands included in the RMPs for Western Oregon. These lands provide forest products, fish and wildlife habitat, and countless recreation opportunities. Unlike national forests, BLM western Oregon public lands are generally not large contiguous blocks. A "checkerboard" pattern of public land is what makes up the federal lands.

Why is the BLM engaging in this effort? Emerging environmental, economic, and social impacts are making the last plans unable to meet the needs of people, plants, and wildlife that depend on these public lands.

The Federal Land Policy and Management Act of 1976 (FLPMA) requires the development, maintenance, and revision of land use plans. Preparation of the RMPs and EIS will conform to federal and state management laws including, but not limited to the Endangered Species Act (ESA), the Clean Water Act, and the National Environmental Policy Act.

In 2012, the State of Oregon signed an MOU defining the process and scope of the state's involvement in developing an RMP that involves and receives better understating of how the state and federal clean water act and state rules and regulations are included in the RMP. DEQ, ODF, ODFW, and DSL directors signed the MOU. The key federal and state natural resources agencies are members of the Cooperating Agencies Advisory Group (CAAG) and technical workgroups such as riparian/aquatic resources.

In 2013, the CAAG met several times to provide comments to draft planning documents prepared by BLM. BLM is developing their RMP differently than in past plans. Programmatic issues are being developed first in order to ensure the outcomes will meet the requirements of the Oregon and California Act, the Federal Endangered Species Act and both the federal Clean Water Act and the State of Oregon water quality standards and TMDL load allocations.

In addition, in 2013, the following documents were reviewed and comments provided by DEQ NPS staff assigned as members of the CAAG:

- Spring 2013 -- Analysis of the Management Situation Community Partner and Tribal Outreach
- Summer 2013 -- Purpose and Need Statement
- Summer 2013 -- Analysis of the Management Situation
- Winter 2013 -- Formulate Alternatives for Analysis (Not for selection)

BLM is on a schedule to have a final RMP and EIS completed by 2015.

4.5 Progress of 319 Grant Funded Projects

4.5.1 Description of Types of 319 NPS Projects

DEQ continually seeks projects from government agencies, tribal nations, and nonprofit organizations to address nonpoint sources (NPS) of pollution affecting coastal, river, lake, drinking, and ground water resources of the state. The annual solicitation occurs annually during the months of October through December as part of the 319 Nonpoint Source Implementation Grants.

The 319 Nonpoint Source Implementation Grant funds target prioritized basins for specific NPS pollutants to effectively improve water quality.

The four general focus areas used to develop DEQ project priorities are:

1. TMDL Implementation.
2. 303(d) listings.
3. Ground Water Management Areas (GWMAs).
4. Drinking Water Source Areas.

4.5.2 Grant Performance Report Summary

The progress of NPS 319 Funded (Pass-Through) Projects is identified in **Table 18** in **Appendix 1**. The data used in the table is as of December 31, 2013. 68 319-funded projects are open; including the twenty six (26) 2013 funded projects.

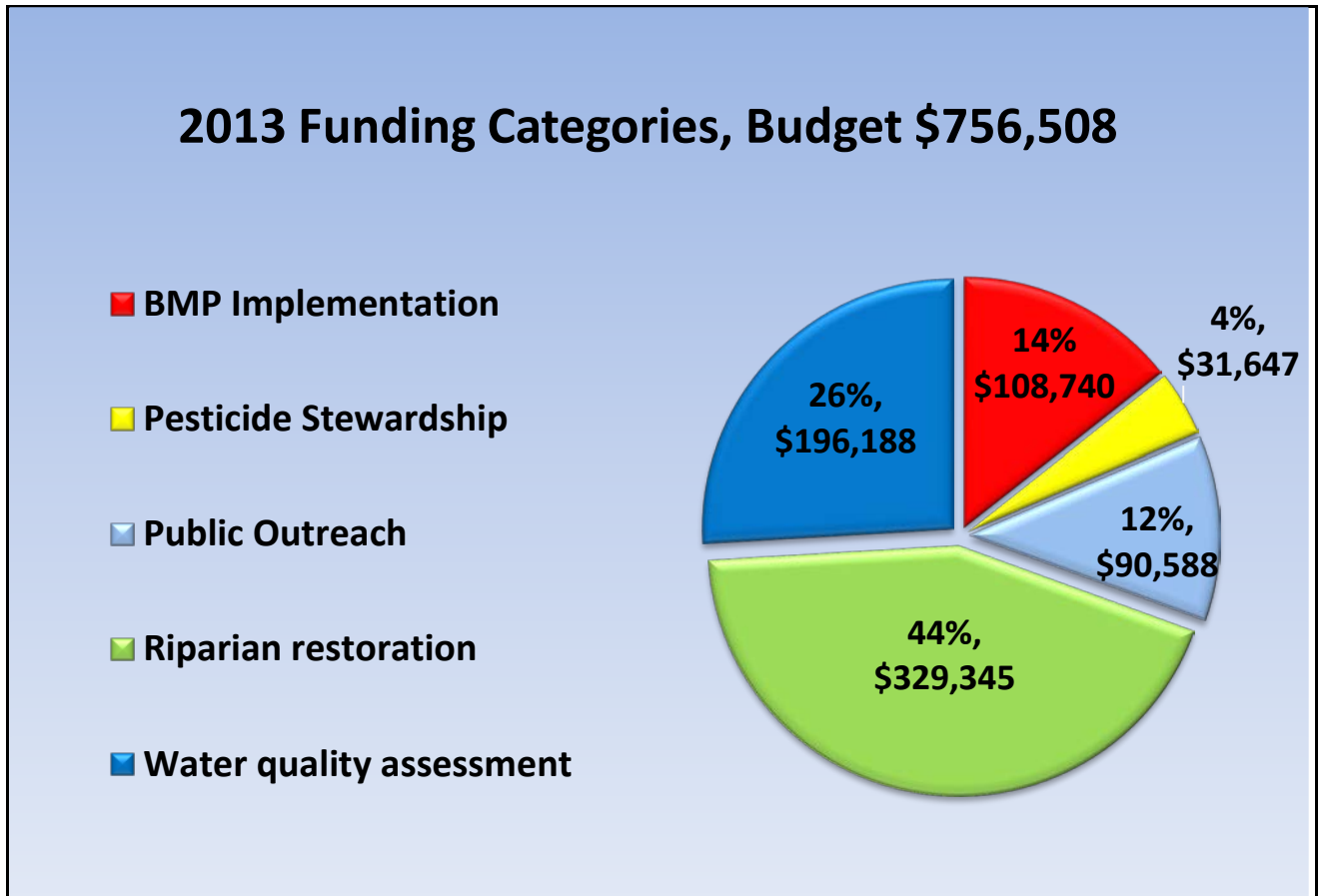
4.5.3 Geographic and Programmatic Priorities for 319 Funding

Table 13 in **Appendix 2** identifies DEQ's geographic and programmatic priorities for 319 funded projects in 2013 as outlined in the 2013 319 RFP (**Appendix 3**). These priorities were used to prioritize the 2013 319 Funded Projects. The identification of priority basins (as listed below) does not exclude the submission of proposals for work outside these basins. To determine how the "project need" was met by region and basin/subbasin; please refer to **Tables 10 and 11** for a list of the 2013 319 Grant Funded Projects in Response to the RFP.

4.5.4 2013 319 Grant Funding Categories

The following **Figure 2** identifies the 2013 – 319 funding categories and funded amounts. The **\$756,980** total funds for 2013 was divided in five areas of emphasis, as follows: BMP Implementation (14%), Riparian restoration, (44%) Pesticide Stewardship Program, (4%), Public Outreach (12%) and Water Quality Assessment (26%).

Figure 6. 2013 Funding Categories



4.5.5 2013 -- 319 Grant Funded Projects

Table 13. Oregon 319 2013 Project List by Subbasin

PROJECT #	REGION	TITLE	SUBBASIN	RECIPIENT	BUDGET
W13700	Eastern	Walla Walla Basin PSP	Walla Walla	WSC	\$45,000
W13701	Eastern	Klamath Tracking and Accounting Program	Klamath	Klamath Basin Range Trust	\$56,000
W13702	Eastern	Examining the Adoption of BMPs in Northern Malheur Co.	Malheur	OSU	\$18,600
W13703	Eastern	NMC WQ Improvement Outreach and BMP Demonstration Project	Malheur County SWCD	SWCD	\$44,092
W13704	Eastern	BLM Nutrient Monitoring in the Powder Basin	Powder	BLM	\$22,000
W13705	Northwest	Nestucca Riparian Restoration	Nestucca	WSC	\$45,000
W13706	Northwest	Depaving and Re-Greening in the Lower Willamette	Willamette	DEPAVE	\$20,000
W13707	Northwest	Molalla River Corridor Campsite Restoration	Molalla	WSC	\$15,000
W13708	Northwest	BYPP 2013-14	Tillamook	TEP	\$40,000
W13709	Northwest	Upper Nehalem Riparian Restoration	Nehalem	WSC	\$45,000
W13710	HQ/Statewide	Trask River Watershed Study- Sed., Turb. And Biotic Responses Following Forest Harvest/Road Management	Northwest	OSU	\$79,410
W13711	HQ/Statewide	Willamette Model Watershed Riparian Revegetation	Willamette	BEF	\$13,362
W13712	Western	Deer Creek Stream Flow, Channel and Floodplain Restoration	Deer Creek (Illinois)	SWCD	\$15,048
W13713	Western	South Umpqua Water Quality Improvement Project	Umpqua	PUR	\$41,616
W13714	Western	Thompson Creek Habitat Restoration	Applegate	WSC	\$16,000
W13715	Western	Model Stormwater Landscapes in the Southern Willamette Valley	Willamette	WSC	\$26,048
W13716	Western	Siuslaw Riparian Restoration and Water Quality Monitoring	Siuslaw	WSC	\$15,524
W13717	Western	Big Elk Road Assessment	Willamette	SWCD	\$15,524
W13718	HQ/Statewide	GW Protection Education to Promote Public Involvement in the Southern Willamette Valley and Well Water Website	Groundwater	OSU	\$47,766

Table 13. Oregon 319 2013 Project List by Subbasin (Cont.)

PROJECT #	REGION	TITLE	SUBBASIN	RECIPIENT	BUDGET
W13719	Northwest	Clackamas CC - Septic System Study	Clackamas	Island City	\$30,000
W13720	Northwest	West Hills Innovative Stormwater Demonstration	Willamette	SWCD	\$18,000
W13721	Northwest	2014 Tillamook CCWF	Tillamook	TEP	\$4,342
W13722	Western	McKenzie Watershed Pesticide Reduction Project	McKenzie	City of Eugene	\$20,480
W13723	Western	Coos WA Biocriteria	Coos	Coos Watersheds	\$31,048
W13724	Eastern	Agriculture Pesticide Round-Up	Grande Ronde	Island City	\$25,000
W13725	Eastern	Walla Walla Basin Pesticide Stewardship Program	Walla Walla	WSC	\$6,647
TOTAL					\$756,507

4.5.6 Estimates of NPS Load Reductions

Section 319 (h) (11) requires states to “report annually on what their nonpoint source programs are accomplishing, including available information on load reductions and actual water quality improvements”. The load reduction estimates need to be completed for projects funded by 319 funds annually.

EPA has requested that DEQ complete NPS pollutant load reductions using EPA’s Section 319 Grants Reporting and Tracking System (GRTS). DEQ used the load reduction model, “Spreadsheet Tool for Estimating Pollutant Load” (STEPL), within GRTS to estimate nitrogen (pounds per year), and phosphorus (pounds per year), Sedimentation-Siltation (tons per year) for three (2) 319 funded projects.

The following Table 8 identifies the total 2013 load reduction estimates by pollutant for three (2) 319 funded projects are as follows: 6,095 Pounds/Year Nitrogen Reduction; 2,136 Pounds/Year Phosphorous Reduction; and 1,295 Tons/Year Sedimentation-Siltation Reduction. Load reduction estimates were included in the EPA database GRTS (Grants Reporting and Tracking System).

Note: The estimates reported in this table were part of the annual report to EPA for Load Reduction Estimates for the year 2013.

Table 14. Estimates of NPS Load Reductions of Selected 2013 -- 319 Funded Projects.

2013 NPS PROJECTS – ESTIMATED NPS LOAD REDUCTION (USING STEPL)				
PROJECT NAME	BASIN	NITROGEN REDUCTION POUNDS/YEAR	PHOSPHOROUS REDUCTION POUNDS/YEAR	SEDIMENTATION-SILTATION REDUCTION TONS/YEAR
Year funded: 2012 Little Butte Creek Water Quality – Frey Phase	Little Butte Creek (Rogue)	334,894	64,327	16,230
Year funded: 2011 Watershed Enhancement Projects	North Coast	Drainage area #1: 141,396 Drainage area #2: 41,001	Drainage area #1: 40,553 Drainage area #2: 7,558	Drainage area #1: 1,229 Drainage area #2: 546
ESTIMATED LOAD REDUCTION		517,291	112,438	18,005

4.5.7 Watershed Based Plans

The Watershed Approach currently being developed by DEQ is based on many components of approaches recommended by EPA and is used in some other states. The Watershed Approach is a basin-scale resource assessment process with greater opportunities for direct, interactive feedback from local stakeholders and tribal nations. Depending on which basin is the focus of the Watershed Approach, an applicable TMDL may have already been developed, may be under development, or may be scheduled for development.

The products of the Watershed Approach process consist of two primary elements: a basin status report and a basin action plan. Stakeholder involvement is also a critical component of the Watershed Approach.

DEQ completed its first three basin status/action plans (links below) as part of this project's pilot year. It will post three more assessments later in 2013. DEQ plans to cover the state's major basins in the next few years then re-visit each to mark progress and reassess how to deal with existing water quality problems.

[North Coast Water Quality Status/Action Plan - Summary](#)
[North Coast Water Quality Status/Action Plan- Full Report](#)

[Deschutes Water Quality Status/Action Plan - Summary](#)
[Deschutes Water Quality Status/Action Plan - Full Report](#)

[Rogue Basin Water Quality Status/Action Plan - Summary](#)
[Rogue Basin Water Quality Status/Action Plan - Full Report](#)

The following Water Quality Status/Action Plans are nearly completed:

- Clackamas and Sandy River Basin
- South Coast Basin
- Powder/Burnt

DEQ has begun working on Water Quality Status/Action Plans for the following:

- Umatilla Basin
- Tualatin Subbasin
- Upper Willamette Area

5. Success Stories and Environmental Improvement

5.1.1 WQ-10 and SP-12 Projects

EPA Region 10 provided this information that summarizes those waterbodies in Oregon that meet EPA Success Story designation:

Table 15. Water Quality Success Stories

STATE	WQ-10	SP-12	MAKING PROGRESS STORY
OR	Diamond Lake	Wilson River 1/27/2010 (1)	Wilson River
		Bear Creek 10/5/2010 (6)	Bear Creek
		Tillamook 6/30/2011 (2)	Tualatin River
		Tualatin (2/2012) (20)	
		Kilchis River 4/22/2013 (1)	
Oregon Total	1	30	3

5.1.2 EPA Success Story Designation Measure Code. WQ-10 and SP-12 Projects:

Table 16. EPA Success Stories: WQ-10 Projects and SP-12 Projects

EPA SUCCESS STORY	
WQ-10 PROJECTS	
Measure Language	Number of waterbodies identified by States (in Year 2000 or subsequent years) as being primarily nonpoint source (NPS)-impaired that are partially or fully restored (cumulative).
Terms and phrases By “ <i>fully restored</i> ”	EPA means that all designated uses are now being met. A waterbody that has a use that is initially impaired by more than one pollutant, but after restoration efforts meets the criteria for one or more (but not all) of those pollutants, or
By “ <i>partially restored</i> ”	EPA means either of the following two conditions are being met: A waterbody that initially has more than one use that is less than fully supported, but after restoration efforts one or more (but not all) of those uses becomes fully supported.
On an ad hoc basis	EPA may approve counting a waterbody against this measure, <u>WQ-10 Projects that</u> has been partially or fully restored, but not yet removed from the 303(d) list. This will only occur if the water has actually been restored (i.e. meeting water quality standards). EPA will not count cases where the State merely believes the water will be restored by the time of their next 303(d) listing. Please note that a waterbody cannot be counted simply because it has been de-listed from a state 303(d) list, or moves from categories 4 or 5 to 1 or 2, for reasons other than actual restoration (e.g., it is determined that it was inappropriately listed in the first place, it has a TMDL done for it, etc.).
SP-12 PROJECTS	
Measure Language	<p>The SP-12 criteria distinguish watersheds that have documented impairments based on the state’s list of impaired waterbodies (these are waterbodies that are either on the Clean Water Act section 303(d) list or classified as impaired but with the TMDL in place).</p> <p>This measure will establish and demonstrate a capacity for watershed-scale restoration and protection throughout the country using the “watershed approach.” It is <u>not</u> designed to be a measure of what portion of the 12-digit watersheds in the country have improved or meet water quality standards. See below for a description of how the program will focus its attention on these watersheds.</p>

EPA SUCCESS STORY	
SP-12 PROJECTS (Cont.)	
<p>Terms and phrases “<i>Watershed</i>”</p>	<p><i>Watershed</i> means (a) a watershed or hydrologic unit at the scale of 12-digit hydrologic unit codes, or HUC-12, as determined by the draft or final Watershed Boundary Dataset (WBD), or (b) a regionally defined hydrologic unit of appropriate scale. Option (b) is provided since some waters, such as coastal and estuary waters, fall outside the WBD, and may or may not be hydrologically definable at a scale comparable to inland HUC-12s. Although watersheds or hydrologic units at the 12-digit scale are technically termed “sub-watersheds” by USGS, the Strategic Plan will use the term “watershed” for simplicity.</p>
<p>An “<i>impaired watershed</i>”</p>	<p>An <i>impaired watershed</i> is a watershed containing one or more impaired water bodies. <i>Impaired water bodies</i> are those identified by states and EPA in the 2002 universe (fixed base) for measure SP-10.</p>
<p><i>Watershed approach</i></p>	<p><i>Watershed approach</i> is a coordinating process for focusing on priority water resource problems that:</p> <ul style="list-style-type: none"> • Is focused on hydrologically defined areas, • Involves key stakeholders, • Uses an iterative planning or adaptive management process to address priority water resource goals, and • Uses an integrated set of tools and programs <p>Functionally, the watershed approach is a problem-solving tool for protecting water quality and aquatic resources. It recognizes that factors affecting the health of our nation’s waters should be understood within their watershed context. It includes assessment of relevant watershed processes and socioeconomic factors, identification of priority issues and most promising corrective actions, involvement by affected parties throughout the process, and implementation at the required scale. See EPA’s Web site at http://www.epa.gov/owow/watershed/approach.html for more information. Also, see Demonstrating Use of the Watershed Approach below.</p> <p>The watershed approach can be applied at any appropriate scale, including scales smaller or larger than the HUC-12 watersheds described above. Thus, for this measure, one watershed effort could result in improvements in one or in many HUC12 watersheds, depending on its scale. For consistency, however, all successes under this measure will be reported as numbers of HUC-12 watersheds.</p>
<p><i>Improved means</i></p>	<p><i>Improved</i> means either that:</p> <ul style="list-style-type: none"> • One or more of the waterbody/impairment causes identified in 2002 are removed, as reflected in EPA-approved state assessments, for at least 40% of the impaired water bodies or impaired stream miles/lake acres in the watershed (see Option 1 below); or • There is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters or related indicators associated with the impairments (see Options 2a and 2b below).

EPA SUCCESS STORY	
SP-12 PROJECTS (Cont.)	
Guidance for Option 1 – Reporting Watershed Improvement Based on Impairment Removal.	Option 1--Corresponding to the first definition of improvement under this measure, in italics above, is designed to track watershed improvements based on removal of waterbody/impairment causes in subsequent EPA-approved 303(d) lists and Integrated Reports. It is based on existing state reporting to EPA. It is perhaps the most rigorous of the three options.
Guidance for Option 2 – Reporting Watershed-wide Improvement	<p><i>Improved means there is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters associated with the impairments.</i></p> <p>Option 2a –Using <u>statistical procedures</u> to demonstrate that significant improvement has occurred with a 90 percent or greater level of confidence. For purposes of this measure, “statistical procedures” are those procedures capable of showing statistically significant change in the water quality parameters or related indicators (e.g., seasonal Kendall trend test, Wilcoxon sign rank). Supporting documentation should describe the environmental significance of any reported changes in water quality.</p> <p>Option 2b – Using <u>a multiple lines of evidence approach</u> to demonstrate watershed improvement. A “multiple lines of evidence approach” means that the cumulative weight of several lines of evidence is used to assess whether a watershed-wide improvement has occurred. If, taken together, the amount and consistency of evidence are judged sufficient to indicate improvement; we will count this toward the measure. Evidence for Option 2b must include the following:</p> <p>A. Evidence of an improving trend in a water quality parameter (physical or chemical) based on empirical data which may or may not be statistically significant (e.g., descriptive statistics) but supports improvement¹.</p> <p>AND</p> <p>B. At least one of the following three lines of evidence :</p> <p style="padding-left: 40px;">B1. Evidence of an improving trend in a related biological indicator/index.</p> <p style="padding-left: 40px;">B2. Evidence of an improving trend in water quality based on predictive/ modeled data, with field level ground-truthing, and</p> <p style="padding-left: 40px;">B3. Evidence of widespread, significant load reductions.</p> <p>AND</p> <p>C. Evidence of widespread nonpoint source or point source implementation, or other evidence of watershed implementation actions.</p> <p>AND</p> <p>D. No evidence of significant deteriorating trends in related parameters as called for in the analytical plan. A lack of evidence (data) for other parameters identified in the analytical plan is not adequate to support this line of evidence.</p>

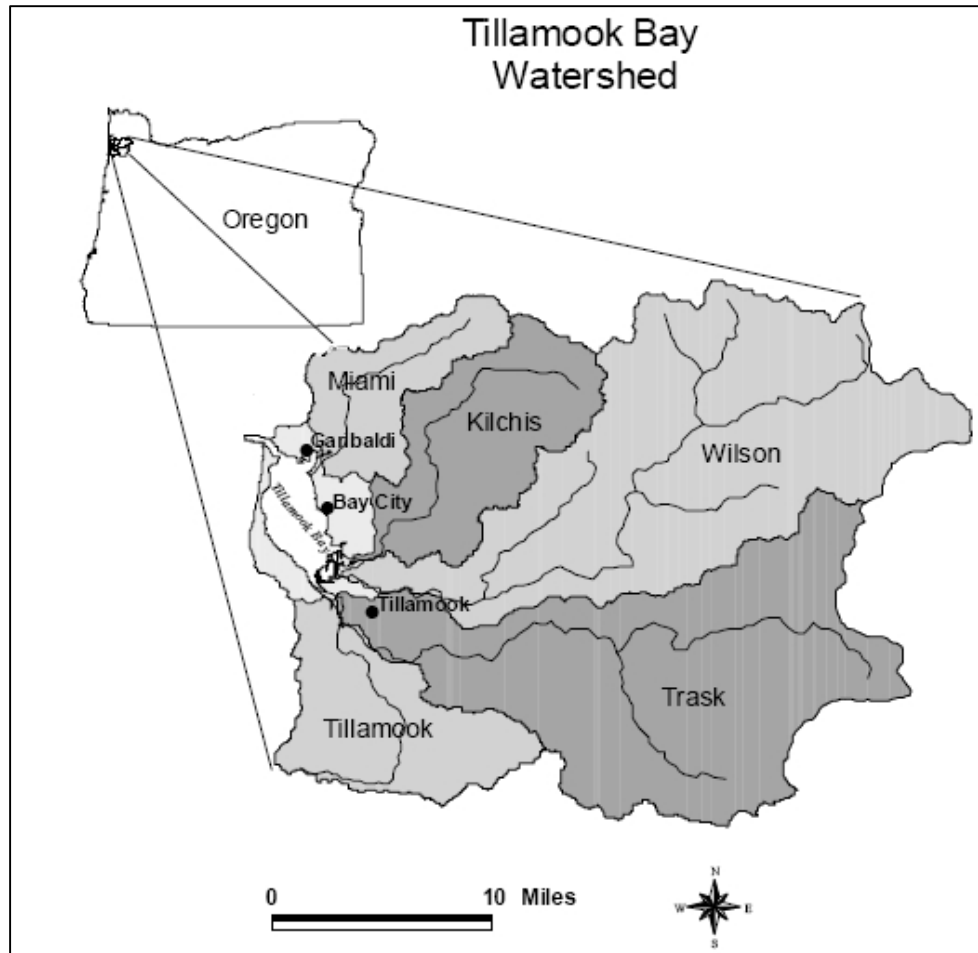
EPA SUCCESS STORY	
SP-12 PROJECTS (Cont.)	
<p>Guidance for Option 2 – Reporting Watershed-wide Improvement</p>	<p>To document watershed-wide improvement using the watershed approach, information must be made available to demonstrate how either Option 2a or 2b is met. If an improvement occurs in a parameter/indicator which the Region and State believe should be counted toward the measure but which differs somewhat from this guidance, an explanation must be provided in the documentation and agreed to by Headquarters.</p> <p>Supporting documentation must also be provided to demonstrate that the improvement is watershed-wide, uses valid scientific information, and includes parameters or other indicators associated with the impairment (see definitions for these terms below). In addition, information provided must specifically identify:</p> <ul style="list-style-type: none"> • A clear written rationale that describes how a determination of improved water quality is supported – including the type, quality, and amount of: ¹ For those impairments where a chemical or physical parameter is not relevant, such as invasive species, this line of evidence can be met by showing an improvement in the biological indicator. Information must accompany the documentation explaining why chemical/physical parameter(s) are not relevant and why the specific biological indicator was chosen: environmental data, and decision criteria. The rationale must identify the specific parameters used to assess improvements, and must also describe the efforts made to locate and analyze any evidence of deteriorating trends in these or related parameters. Sufficient information must be provided to give readers an understanding of the approach used to assess data, but the level of detail may vary. Relevant information may be found in state-wide quality plans, standard operating procedures, project-specific quality assurance project plan, or other analogous forms. Other information may be written to describe how data were used or to document the analyses performed that demonstrate improved water quality. • A description of the problem and the link to the impairment causes identified in 2002, • Data used in the assessment, and • The results that demonstrate improvement.

APPENDICES

Appendix A

Oregon's Kilchis River, SP-12 Option 2a Photos and Graphics

Figure A-7. The 65-square-mile
one of five major
Tillamook Bay Basin in



65-square-mile Kilchis River Basin is
tributaries within the
northwest Oregon.

Figure A-2. Data show that BMPs implemented through the watershed have led to significantly decreasing levels of bacteria in at all water quality monitoring stations. In cases where bacteria levels are already low, they have remained low.

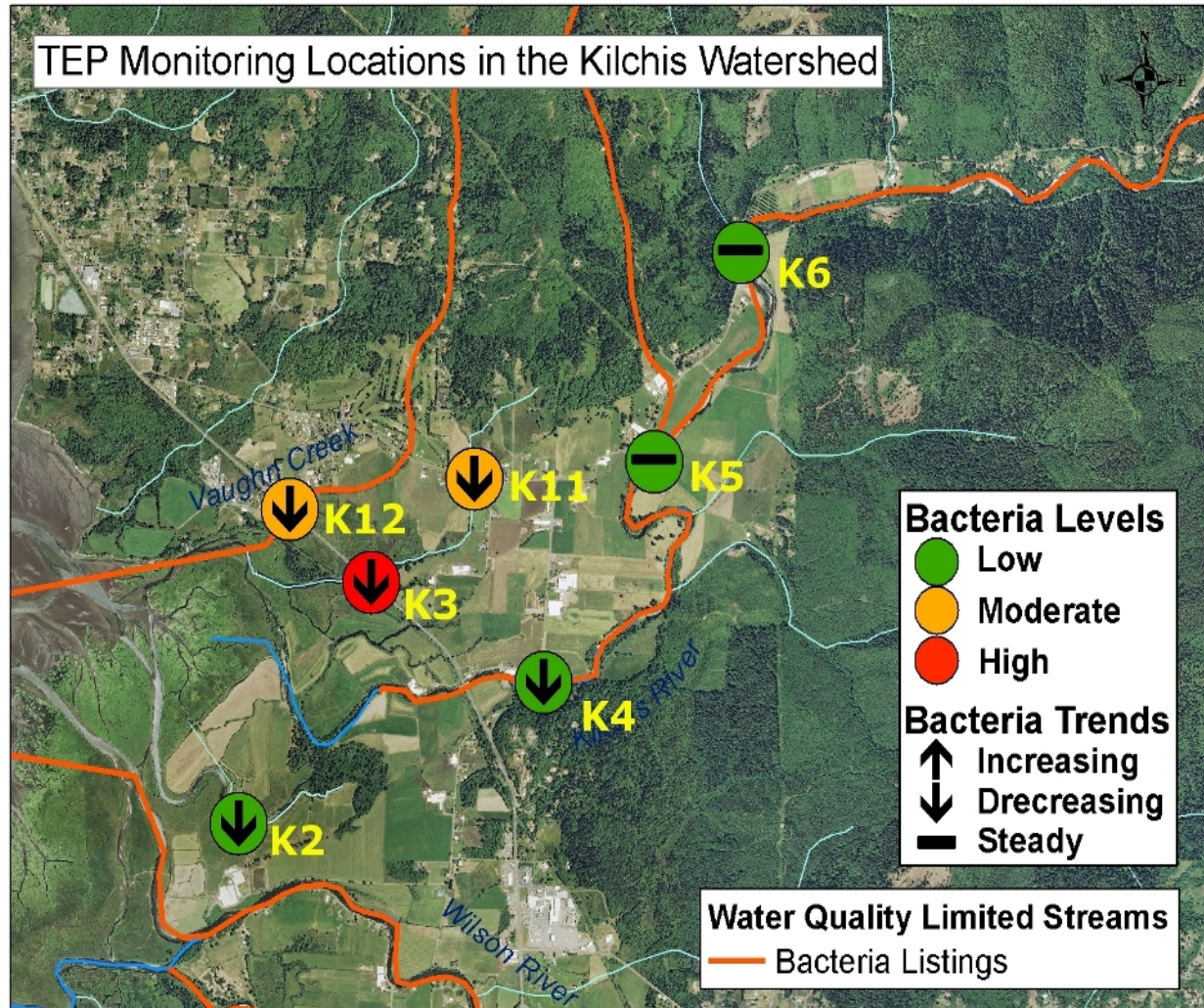


Figure A-3. Data and trend analysis for Kilchis River monitoring station K4. Bacteria levels in the Kilchis River have steadily declined since 1997 and now consistently meet the two-part recreational use water quality standard, which requires (1) that the 30-day log mean not exceed 126 *E. Coli* counts per 100 mL, from a minimum of five samples and, (2) that no single sample exceed 406 *E. Coli* counts per 100 mL

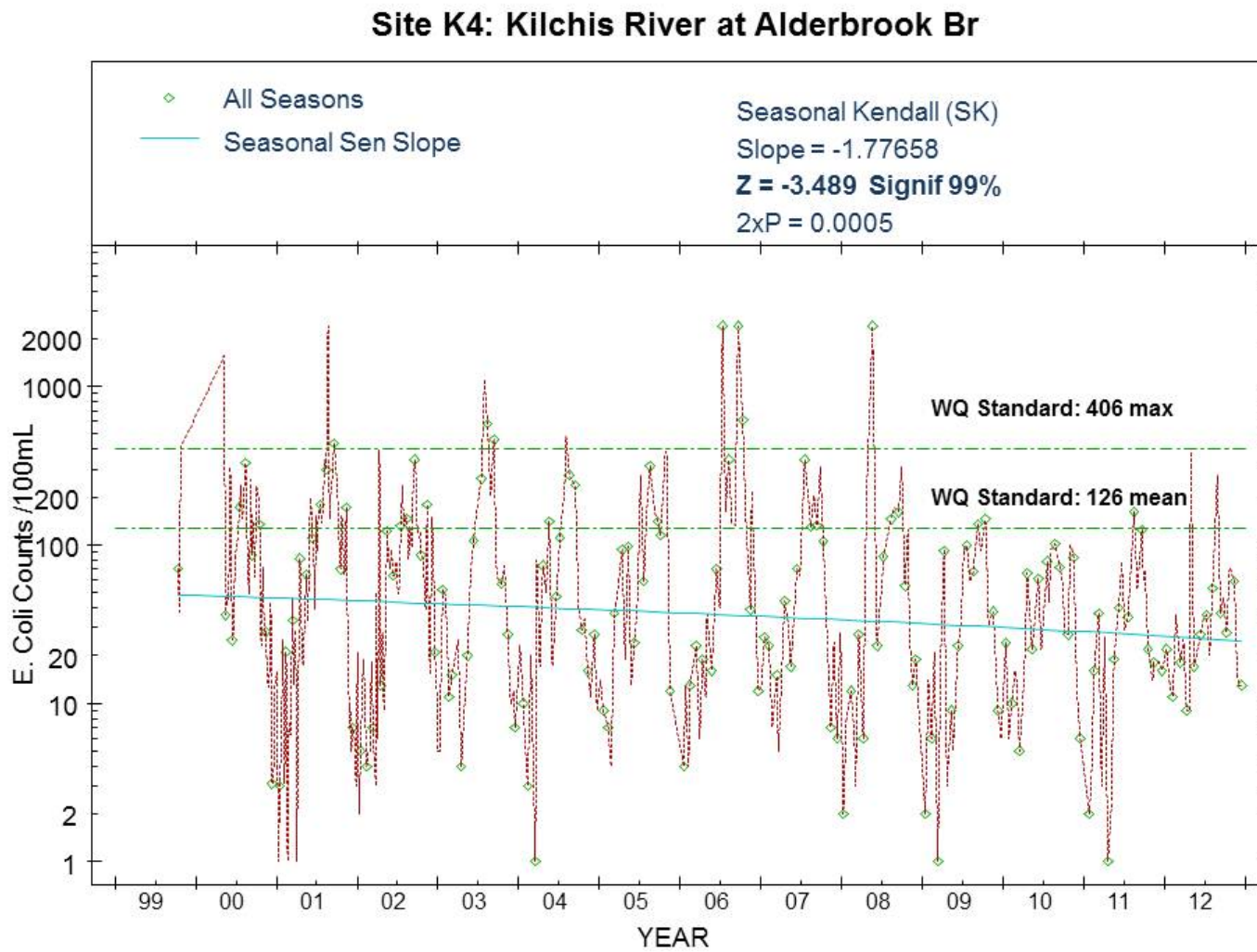


Figure A-4. Data and trend analysis for Kilchis River monitoring station K5. Bacteria levels in the Kilchis River have steadily declined since 1997 and now consistently meet the two-part recreational use water quality standard, which requires (1) that the 30-day log mean not exceed 126 *E. Coli* counts per 100 mL, from a minimum of five samples and, (2) that no single sample exceed 406 *E. Coli* counts per 100 mL

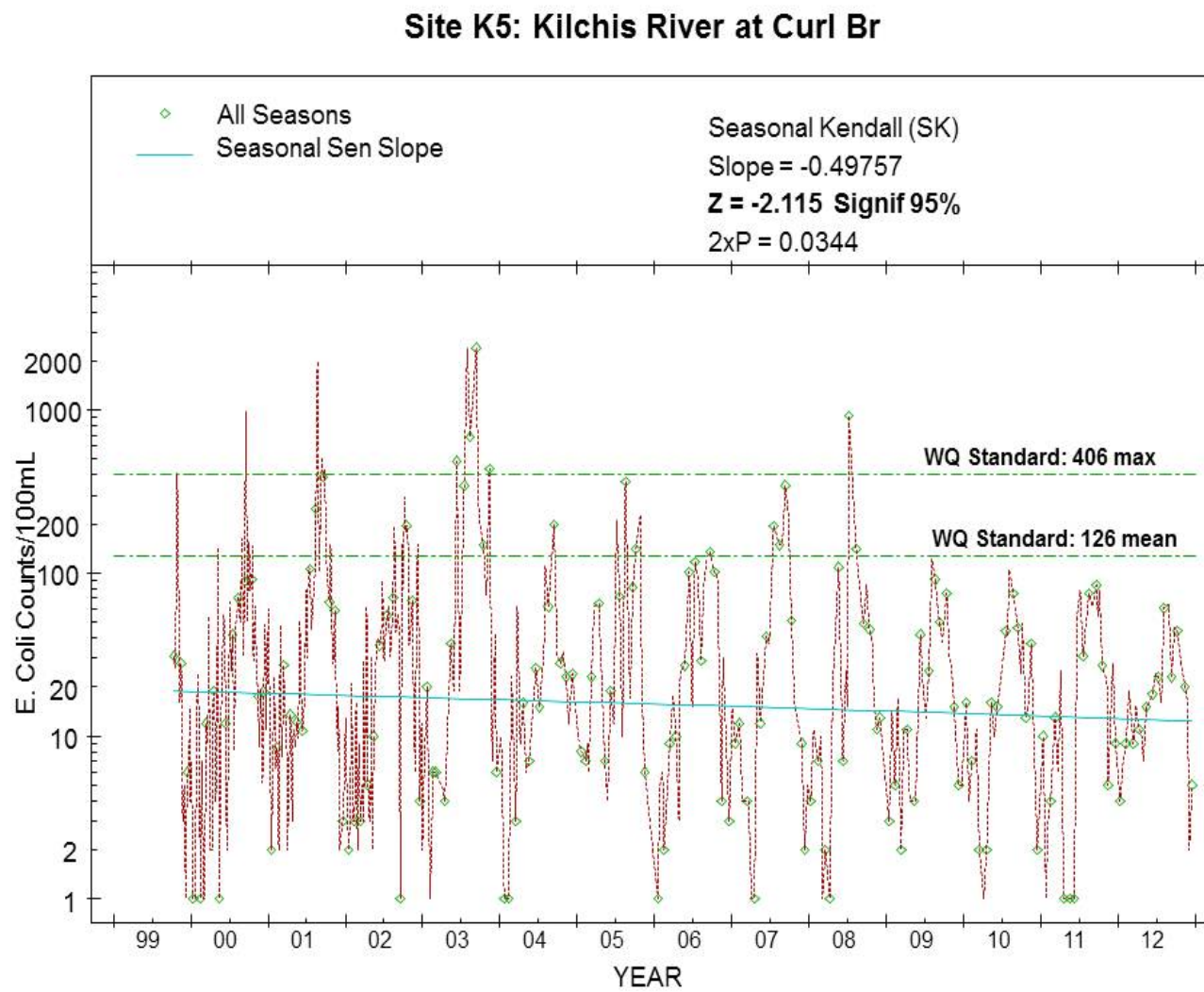


Figure A-5. Data and trend analysis for Kilchis River monitoring station K6. Bacteria levels in the Kilchis River have steadily declined since 1997 and now consistently meet the two-part recreational use water quality standard, which requires (1) that the 30-day log mean not exceed 126 *E. Coli* counts per 100 mL, from a minimum of five samples and, (2) that no single sample exceed 406 *E. Coli* counts per 100 mL

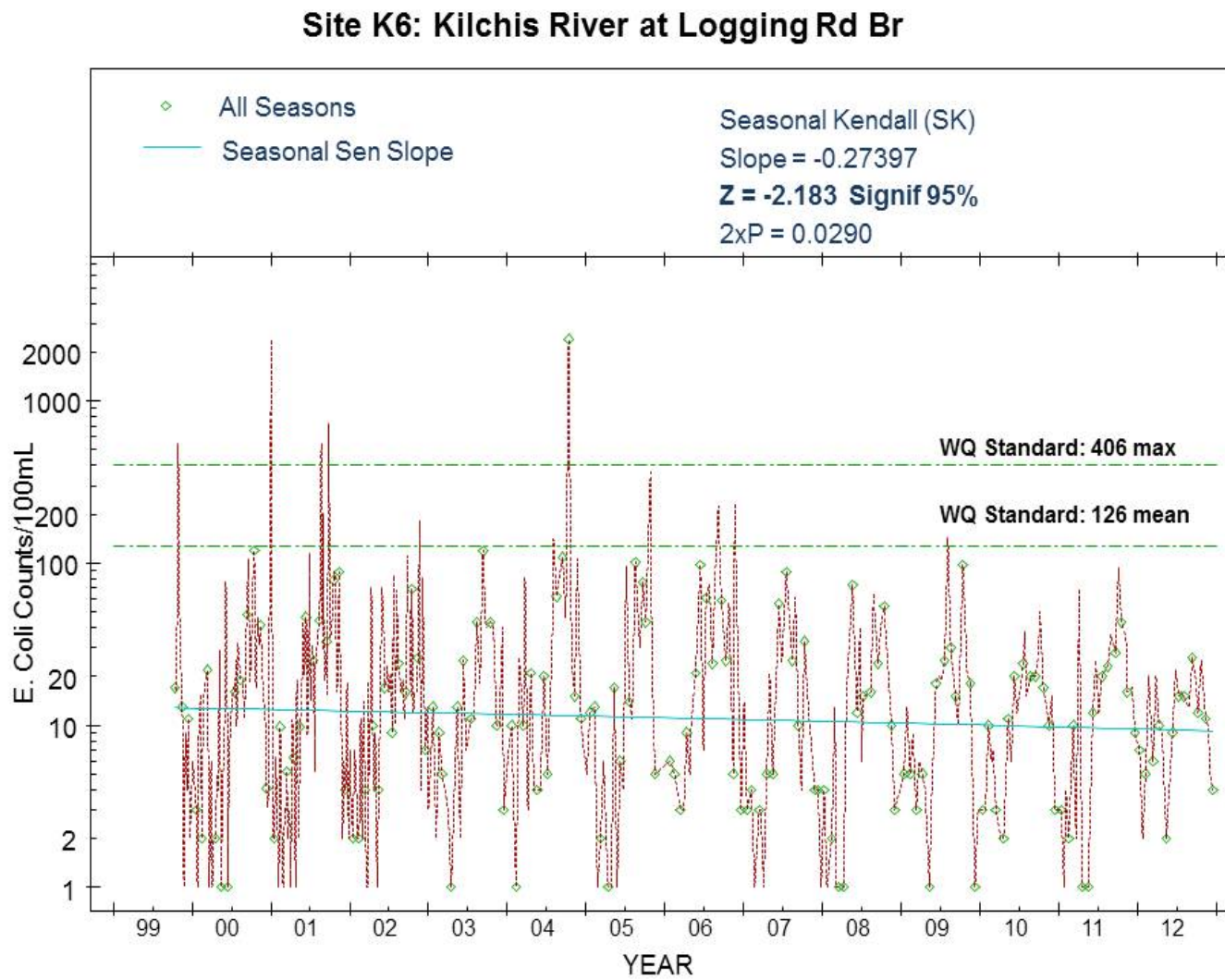


Figure A-6. Data and trend analysis for Kilchis River monitoring station K2. Bacteria levels in the Kilchis River have steadily declined since 1997 and now consistently meets the two-part recreational use water quality standard, which requires (1) that the 30-day log mean not exceed 126 *E. Coli* counts per 100 mL, from a minimum of five samples and, (2) that no single sample exceed 406 *E. Coli* counts per 100 mL

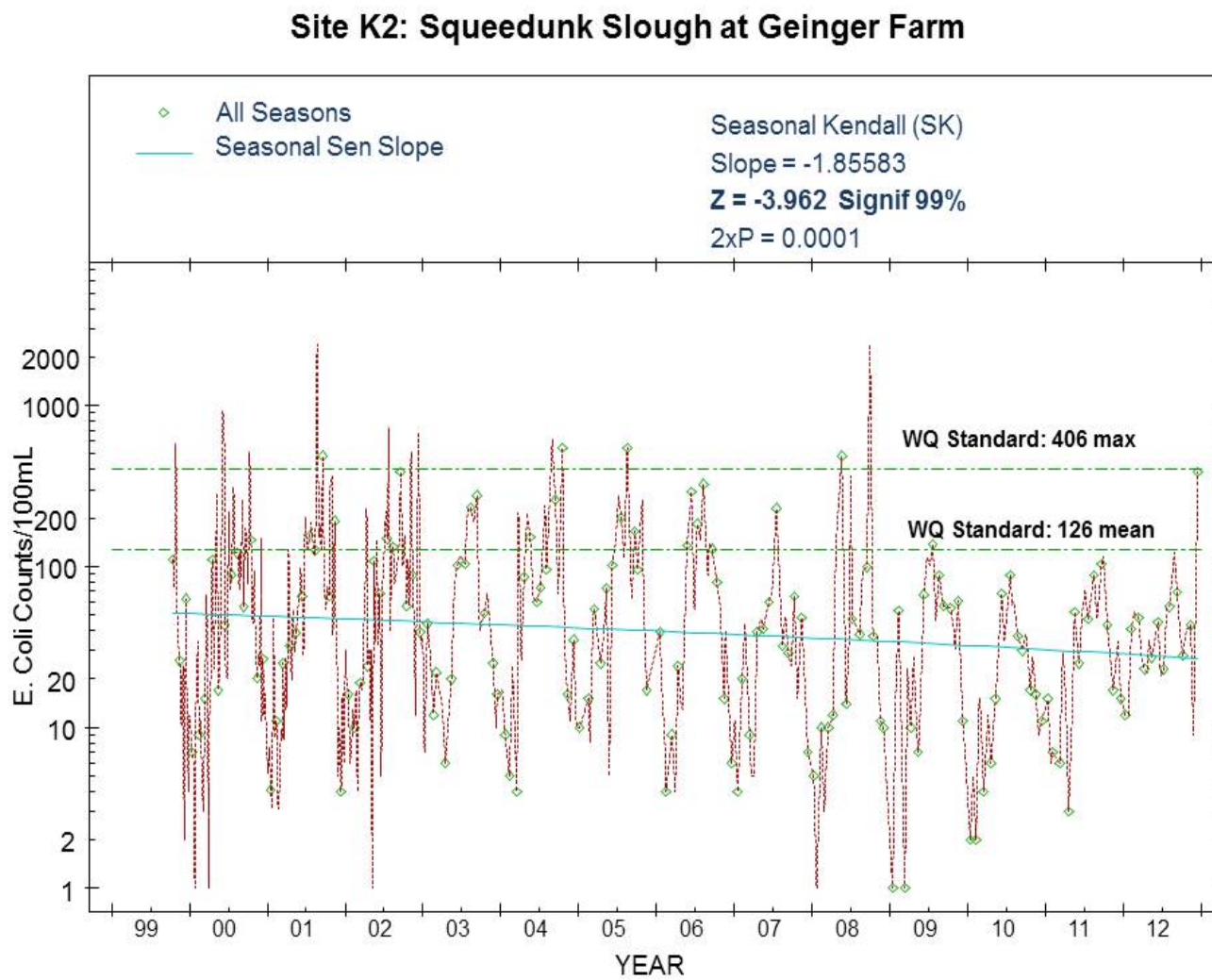


Figure A-7. Data and trend analysis for Kilchis River Watershed monitoring station K3. Bacteria levels in the Hathaway Slough have steadily declined since 1999 and now show a statically significant decline in bacteria concentrations.

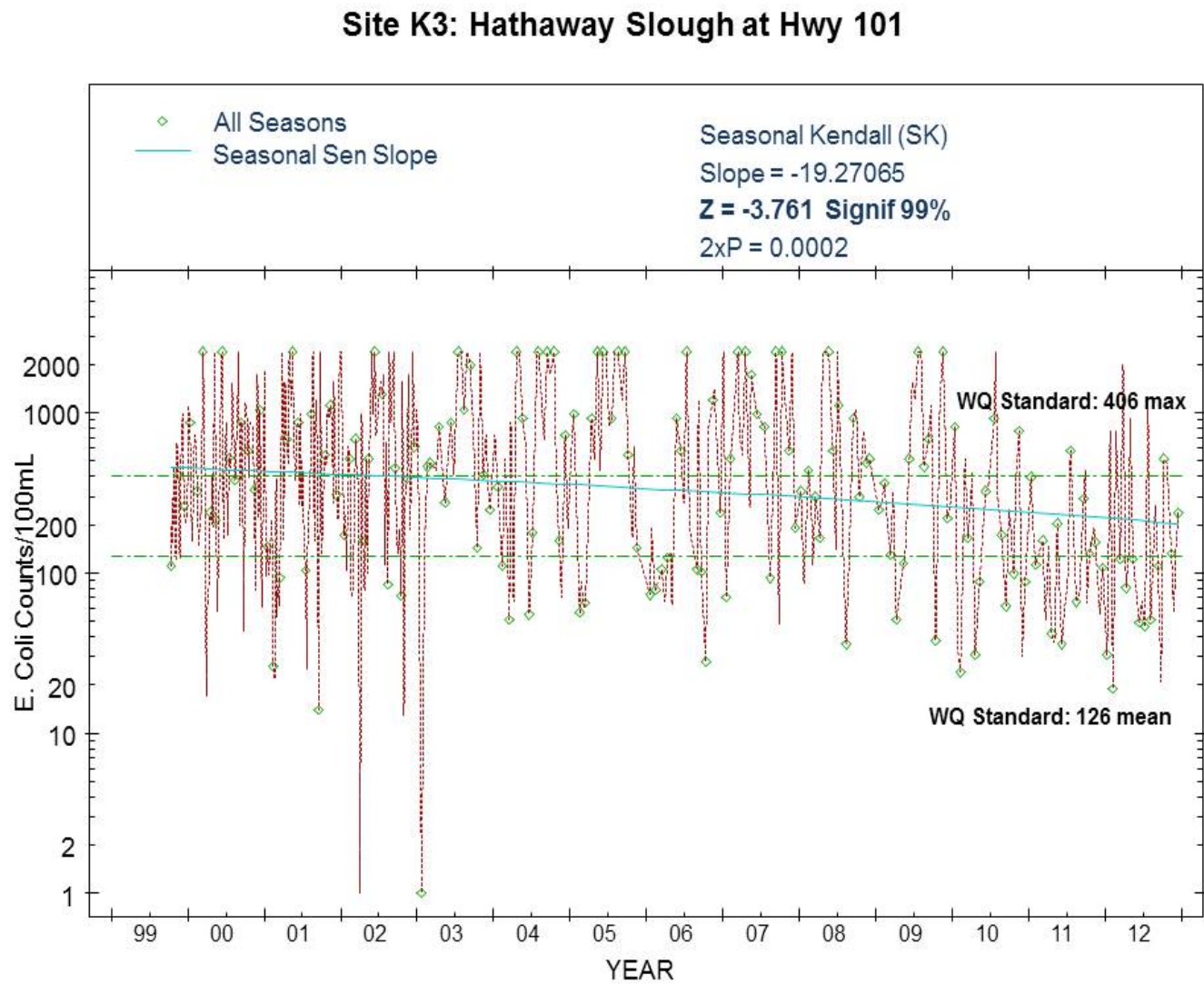


Figure A-8. Data and trend analysis for Kilchis River Watershed monitoring station K11. Bacteria levels in upper Hathaway Slough have steadily declined since 2003 and now show a statically significant decline in bacteria concentrations.

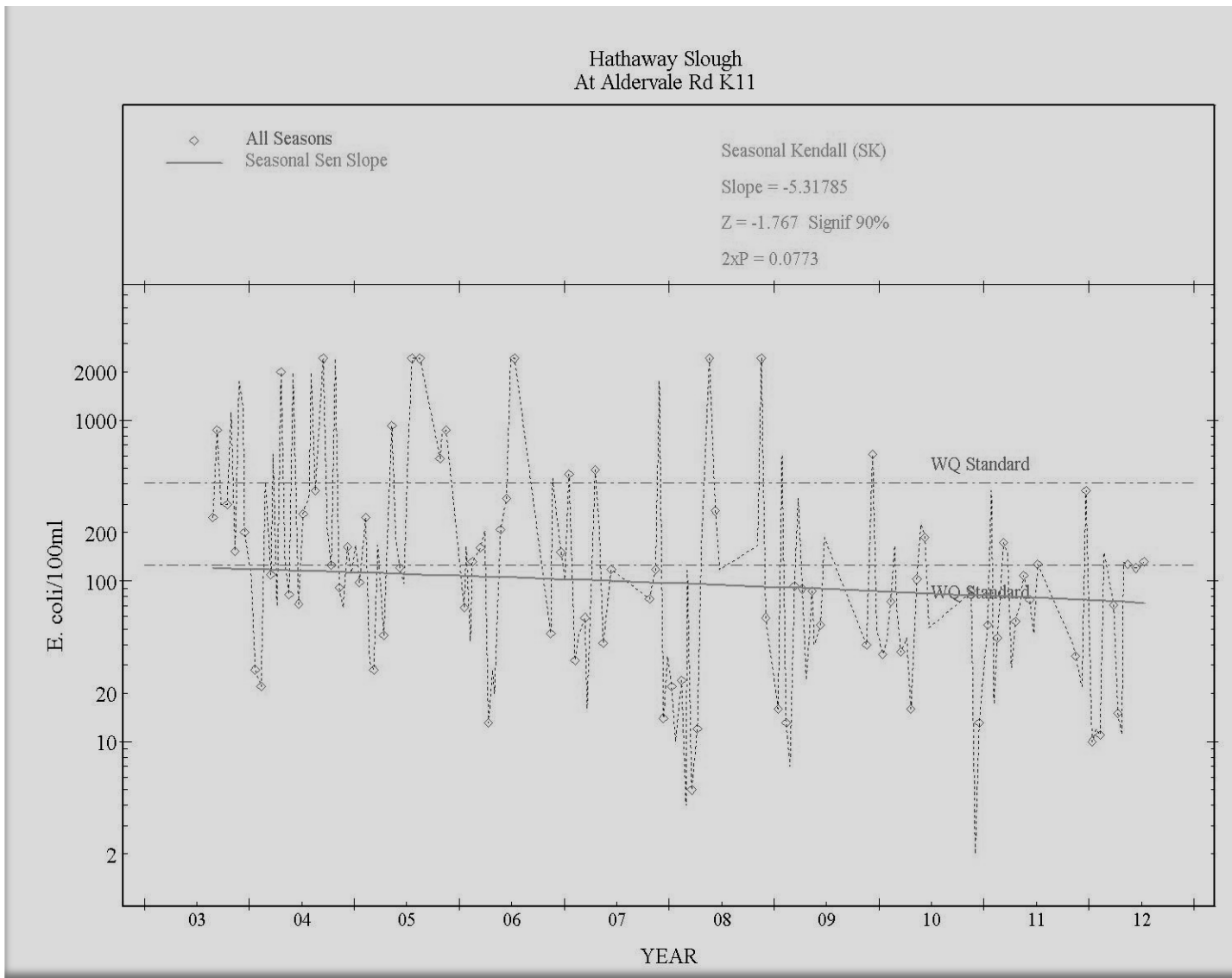
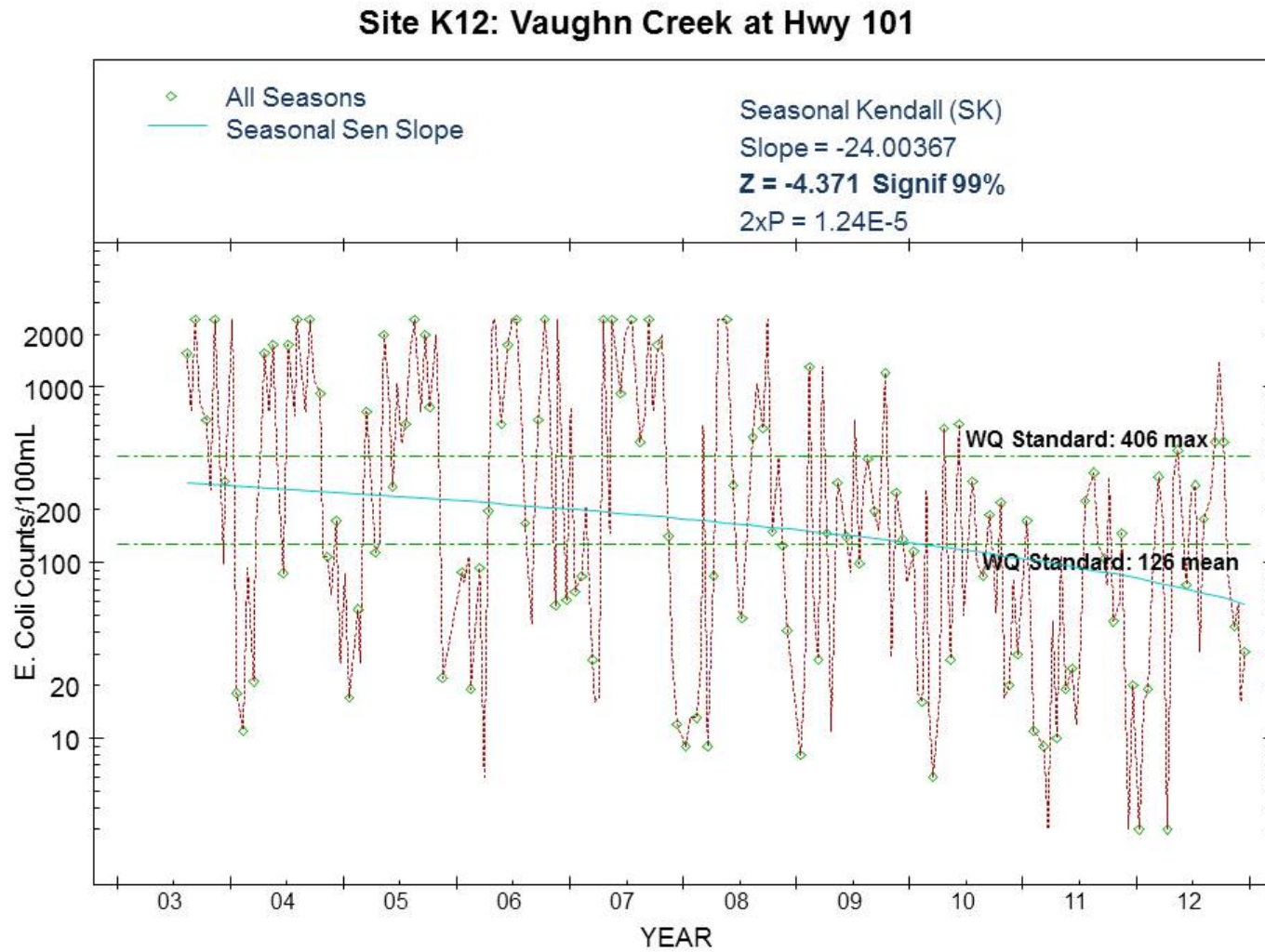


Figure A-9. Data and trend analysis for Kilchis River monitoring station K12. Bacteria levels in Vaughn Creek have steadily declined since 2003 and now show a statically significant decline in bacteria concentrations.



REPORTING WATERSHED IMPROVEMENT Based on Statistical Evidence of Watershed-wide Improvement (Option 2a) Kilchis River, Oregon

Watershed Identification

a	Organization	Oregon Department of Environmental Quality (ODEQ)
b	Point of Contact	York Johnson Phone: 503-322-2222 E-mail: johnson.york@deq.state.or.us
c	Project Title	Reducing bacterial contamination in the Kilchis River watershed, Oregon

Description of 2002 Baseline Condition

d	Watershed	One HUC-12 watershed improved: 171002030602, Kilchis River, part of the Tillamook Bay Basin in northwest Oregon.
e	2002 Impairments	In 2002, in the Kilchis River Watershed (HUC 171002030602), approximately 19.7 miles were impaired for bacteria (and temperature, in most cases) and another 4.8 miles were impaired for temperature or dissolved oxygen. <ul style="list-style-type: none"> • <u>Murphy Creek</u> (LLID: 1238368455073), river mile 0 to 2.5 – BACTERIA & TEMPERATURE (2.5 miles total) • <u>Kilchis River</u> (LLID: 1238985454957), fall/winter/spring: river miles 8.4 to 15.4 -- BACTERIA & TEMPERATURE (7 miles total) • <u>Kilchis River</u> (LLID: 1238985454957), summer, river miles 2.3 to 8.5 -- BACTERIA & TEMPERATURE (6.2 miles total) • <u>Coal Creek</u> (LLID: 1238337455012), summer, mouth to river mile 2.3-- TEMPERATURE (2.3 miles total) • <u>Myrtle Creek</u> (LLID: 1238173455231), summer, river miles 0 to 1.3 – TEMPERATURE (1.3 miles total) • <u>Hathaway Slough</u> (LLID: 1111111111122), river mile 0 to 1.2—DISSOLVED OXYGEN (1.2 miles total) • <u>Vaughn Creek</u> (LLID: 1239005454978), river mile 0 to 4 – BACTERIA (4 miles total)
f	Map (optional)	See Attachment A, Figure A-1

Evidence of Watershed Approach

g	Area of Effort	The watershed effort took place within the 572-square-mile Tillamook Bay Watershed in northwest Oregon (HUC 17100203). Five major rivers flow into Tillamook Bay: the Miami, Kilchis , Trask, Wilson and Tillamook rivers. Targeted watershed efforts specifically within the 65-square-mile Kilchis River watershed (171002030602) led to significant water quality improvements.
h	Stakeholders Involved and Their Roles	Numerous stakeholders have been involved in cleaning up the Kilchis River and Tillamook Bay watersheds, including landowners, businesses and local, state and federal government agencies (see Attachment B). Key stakeholders include:

- **The Tillamook Bay National Estuary Program** led efforts to develop and implement watershed management plans for the larger Tillamook Bay watershed and its tributaries. TEP also offers riparian restoration programs for landowners, has facilitated purchases of sensitive wetland areas in the basin, and leads numerous watershed-wide education and outreach programs for all ages.
- **The Tillamook County Performance Partnership, now known as the Tillamook Estuaries Partnership (TEP)**, was formed to track and help implement the Tillamook Bay Comprehensive Conservation and Management Plan. The Partnership is a group of 120 members representing community leaders, state and federal agencies, citizens, industries and municipalities.
- **The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) and local Soil and Water Conservation Districts (SWCDs)** help private landowners and managers implement accepted conservation practices to improve land stewardship. The NRCS and the Farm Service Agency administer Farm Bill Programs for the North Coast Basin through the USDA Service Center in Tillamook. The SWCDs also work with landowners and conduct education and outreach.
- **Oregon Department of Agriculture (ODA)** oversees the Confined Animal Feeding Operations (CAFO) permit program, which was developed to assist operators and producers with managing their waste to prevent contamination of groundwater or surface water. Since the early 1980's, CAFOs have been registered to a general Water Pollution Control Facility permit designed to protect water quality, while allowing the operators and producers to remain economically viable.
- **Oregon Department of Environmental Quality (ODEQ)**. Responsible for protecting Oregon's water quality, maintaining a list of water quality limited streams and developing total maximum daily loads. ODEQ provides Clean Water Act (CWA) section 319 funds to support projects in priority watersheds.
- **Oregon Watershed Enhancement Board (OWEB)**. Implements grant program that funds restorations, land acquisition, technical assistance, monitoring, and education projects throughout the State. OWEB has funded several projects in the North Coast Basin.
- **Tillamook County**. Responsible for the on-site sanitation program for Tillamook County and works with private landowners to address and maintain functioning septic systems.
- **The U.S. Fish and Wildlife Service** funds projects that protect and restore fisheries and wildlife resources.
- **Oregon Department of Fish and Wildlife (ODFW)**. Works with landowners to balance protection of fish and wildlife with economic, social, and recreational needs. Advises on habitat protection. Offers technical and educational assistance for habitat and restoration projects. Provides plan review for special property tax assessment for wildlife habitat projects.

j Watershed Plan

Stakeholders have collaborated on numerous watershed plans that identify problems and recommend activities to improve water quality in the Tillamook Bay and/or Kilchis River watersheds. The plans vary according to the focus—some focus on a specific type of problem, goal or watershed—but all build on previous planning efforts. They include:

- **Forest Roads, Drainage, and Sediment Delivery in the Kilchis River Watershed** (1997) (see www.oregon.gov/ODF/privateforests/MonitoringForestRoads.shtml)
- **Kilchis Watershed Analysis** (1998) (see <http://wildsalmoncenter.org/pdf/kilchis.pdf>)
- **Tillamook Bay Comprehensive Conservation and Management Plan** (1999) (see www.tbnep.org/resource-center/tep-reports/ccmp)
- **North Coast Agricultural Water Quality Management Area Plan** (2000) (see www.oregon.gov/ODA/NRD/water_agplans.shtml)
- **Tillamook Bay Watershed Total Maximum Daily load (TMDL)** for temperature and bacteria (2001) (see www.deq.state.or.us/WQ/tmdls/northcoast.htm)

- **North Coast Basin Status and Action Plan (2010)** (see <http://www.deq.state.or.us/wq/watershed/Docs/NorthCoastPlan.pdf>)
- **Watershed Plan/Environmental Assessment for the Lower Tillamook Bay Watershed** (2001) (not available online)
- **Development of an Integrated River Management Strategy for the Tillamook Bay Watershed** (2002) (see <http://yosemite.epa.gov/R10/ecocomm.nsf/webpage/Tillamook+Bay+Integrated+River+Management+Strategy>)

j Restoration Work

Local groups, including TEP, Tillamook Bay Watershed Council and Tillamook SWCD and their federal, state and local partners, have implemented several projects aimed at restoring and protecting the Kilchis River watershed (using Clean Water Act section 319 and other funding sources). From 2001 through 2003, TEP's citizen volunteers collected water samples from twenty-two sites in the Tillamook Bay Watershed as part of a bacteria DNA marker study. Led by Oregon State University (OSU) researchers, the DNA Marker study sought to identify bacteria sources by detecting host-specific genetic marker sequences. The DNA study identified whether bacteria were from a human or a ruminant source. In the lower Kilchis River Basin, the study showed that the source of bacteria included both humans and ruminants. This study helped partners target practices. The partners have installed best management practices (BMPs) and completed other projects to reduce bacteria, sediment and temperatures in the Kilchis River Basin (Figure 1).

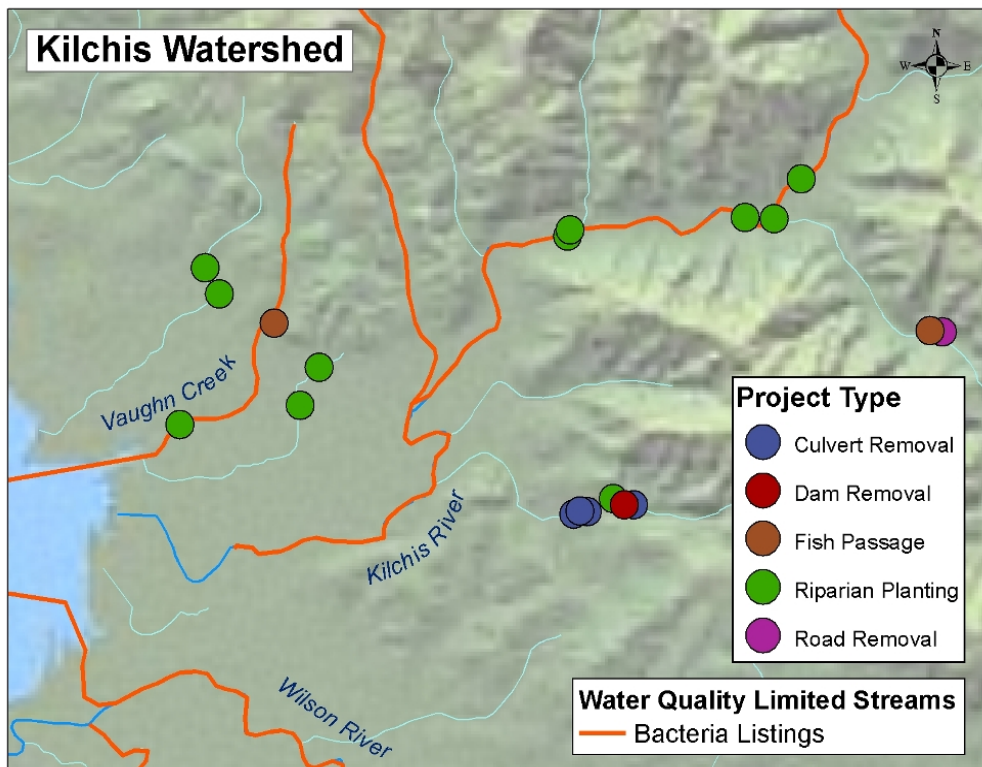


Figure 1. BMPs installed throughout the Kilchis River Basin.

Since 2000, partners' restoration efforts have included: The Tillamook County SWCD, in combination with NRCS, worked directly with landowners to evaluate and address problems with manure application/storage, runoff and erosion. In the lower Kilchis River watershed, the SWCD helped landowners install 7 above ground wet

storage manure tanks, 22 underground wet storage manure tanks and 12 dry storage manure tanks. The SWCD also implemented 7 riparian fencing and planting projects with private landowners and worked to promote BMPs such as nutrient management, waste utilization and prescribed grazing. In addition, the SWCD conducts numerous educational and outreach activities in the Kilchis Rivers and greater Tillamook Bay watersheds, including distributing fact sheets, holding workshops and publishing articles in local newspapers. Landowners also adopted rotational grazing plans on 3 farms.

Since 2000, TEP worked with landowners to complete more than 10 on-the-ground habitat and riparian restoration/protection projects in the lower Kilchis River through their Backyard Planting Program (BYPP), many in partnership with Tillamook SWCD. Between BYPP and Tillamook SWCD a total of 10 individual locations have been restored. TEP's BYPP involves partners, including OWEB and DEQ. TEP, in collaboration with TCCA and ODFW, also removed a dam, improved aquatic habitat by adding large woody debris, and restoring riparian areas along Coal Creek in 2009. TEP also conducts numerous education programs, including hosting an annual Children's Clean Water Festival, developing Clean Water Education kits for classroom use, and leading field trips, workshops and classroom-based discussions on water quality and environmental protection.

ODEQ worked with the Tillamook County Department of Community Development's On-Site Sanitation Program (i.e., septic systems) to identify and strategizes areas along the Kilchis River that needed additional investigation based on the results of TEP's OSU bacterial DNA study. Tillamook County implemented the effort.

The Nature Conservancy, in partnership with TEP and OWEB, acquired a 66-acre parcel of pasture land to restore to wetland. Currently The Nature Conservancy is working to develop a restorations plan that will return the property to a natural vegetation type and remove invasive species.

TEP and the Tillamook Bay Watershed Council (TBWC) have worked on several enhancement efforts in the Vaughn Creek watershed (a tributary to the Kilchis River) including replacing four fish barrier culverts with bridges, upgrading a water diversion intake from a dam system to a gravity-fed intake system, one riparian planting project, and water quality monitoring since August 2003. Monitoring data collected on Vaughn Creek (site K12: Vaughn Creek at Hwy 101) show a significant decreasing trend in bacteria concentrations since 2010.

In partnership with Pacific Power's Oregon Blue Sky Habitat Initiative, the Nature Conservancy led a 2008 project to install large woody debris in Murphy Creek, a tributary of the Kilchis River.

Evidence of Watershed-wide Improvement

<p>k Impairments Removed (if applicable)</p>	<p>No impairments removed to date; however, data show that bacteria levels have been steadily declining and that a 13.1-mile impaired segment of the Kilchis River now meets the bacteria water quality standard (and has since 2009). Data also show that several tributary streams either meet bacteria standards or show statistically significant declining trends (see Attachment A, Figure 2).</p> <p>Although data show that Kilchis River segments meet the recreational use standards for <i>E. coli</i> bacteria, the river will remain listed as impaired because of procedural issues. Tillamook Bay (the receiving water) is listed as impaired for fecal coliform bacteria, but the Kilchis River's contribution of fecal coliform bacteria to the Bay is unknown because TEP does not have the ability to analyze samples for fecal coliform. Therefore, the Kilchis River will not be removed from the impaired waters list for bacteria in the near future.</p>
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1 Statistical Results

TEP has collected detailed monitoring data from throughout the Tillamook Bay watershed since 1999, including at seven stations in the lower Kilchis River watershed. Three stations (K4, K5, K6) capture data along the mainstem Kilchis River, extending from the river’s mouth to mile 15.4 (the uppermost extent of the river segment that is designated as impaired for bacteria). Data show that all three stations have met the two-part recreational use water quality standard for *E. coli* bacteria since 2009 (see Attachment A, Figures 3, 4 and 5). ODEQ performed a Seasonal Kendall trend analysis test on the bacteria data from monitoring stations K4, K5 and K6. The analysis determined the following decreasing trends:

- **K4 (Kilchis River at Alderbrook Bridge):** Already meets standards and shows a continuing decreasing trend with 99% confidence level
- **K5 (Kilchis River at Curl Bridge):** Already meets standards and shows a continuing decreasing trend with 95% confidence level
- **K6 (Kilchis River at Logging Road Bridge):** Already meets standards and shows a continuing decreasing trend with 95% confidence level

ODEQ also performed a Seasonal Kendall trend analysis test on the bacteria data from four monitoring stations along tributaries to the Kilchis River (see Attachment A, Figures 6, 7, 8 and 9). These waterbodies were not listed as impaired in 1998 because no data had been collected prior to development of the Tillamook Bay watershed TMDL. TEP began collected data on these waterbodies between 1999 and 2003—all of these waterbodies, which periodically exceeded bacteria standards over the past decade, have improved steadily thanks to the watershed approach. The analysis determined the following decreasing trends in these waterbodies:

- **K2 (Squeedunk Slough at Geinger Farm):** decreasing trend with 99% confidence level (meets standards)
- **K3 (Hathaway Slough at Highway 101) and K11 (Hathaway Slough at Aldervale Road):** decreasing trends with 99% and 90% confidence levels, respectively (but do not yet consistently meet standards)
- **K12 (Vaughn Creek at Highway 101):** decreasing trend with 99% confidence level (does not yet consistently meet standards)

These data have been submitted for upload to LASAR, Oregon’s publicly available online water quality database (<http://deq12.deq.state.or.us/lasar2>).

m Environmental Significance

The statistical results show that the watershed plans’ multi-faceted efforts to reduce bacteria levels are working. Nonpoint source pollution reduction efforts by multiple stakeholders in the Kilchis River watershed included implementing agricultural BMPs, restoring riparian areas, and addressing failing septic systems. By tackling diverse pollution sources through a variety of means, watershed partners have reduced the amount of bacteria reaching the river, which has allowed bacteria levels to drop significantly throughout the watershed (see Attachment A, Figure A-2). Additionally, as the new riparian and wetland vegetation matures over time, it should provide long term benefits for seasonal problems with temperature and dissolved oxygen.

APPENDIX 2.**Progress of NPS 319 Funded Projects (Grant Performance Report)**

PROGRESS OF NPS 319 FUNDED PROJECTS (GRANT PERFORMANCE REPORT)							
PROJECT #	TITLE	FUNDING YEAR	BUDGET	CONTRACT WITH	BALANCE	PROJECT MANAGER	END DATE
W09740	Clackamas Waste Pesticide Collection Event, 09-13	2009	\$5,261.00		\$317.56	Harvey, Julie	30-Jun-14
W10717	Riparian Restoration	2010	\$44,045.00	Tillamook County SWCD	\$36,810.72	Purcell, Jennifer	30-Jun-14
W10720	Ten Mile Lakes TMDL Implementation	2010	\$25,000.00	City of Lakeside	\$2,500.00	Blake, Pamela	30-Jun-14
W10723	Pesticide Roundup Events	2010	\$50,182.30	NO CONTRACT	\$0.00	Harvey, Julie	30-Jun-14
W10724	So. Willamette Valley GW Management Area Action Plan Implementation	2010	\$72,480.00	Lane Council of Governments	\$30,395.42	Eldridge, Audrey	31-Jan-14
W10726	Medford Bacteria Source Roundup	2010	\$7,320.00	City of Medford	0	Tugaw, Heather	30-Jun-14
W11601	Urban Issues Working Group NPS Education Project	2011	\$22,396.00	Klamath Watershed Partnership	\$16,856.27	Dombrowski, Tonya	31-Dec-14
W11603	Powder Basin Monitoring Program	2011	\$24,199.00	Powder Basin Watershed Council	\$3,021.57	Dombrowski, Tonya	31-Mar-14
W11606	Rock Creek Restoration Design	2011	\$43,680.00	Wasco County SWCD	\$11,554.48	Dombrowski, Tonya	30-Sep-14
W11613	Johnson Creek Effective Monitoring: Temperate and Bacteria	2011	\$44,306.00	Johnson Creek Watershed Council	4430.6	Drake, Doug	30-Jun-14
W11616	Milk Creek Streambank and Riparian Buffer Restoration	2011	\$35,050.00	Clackamas Co Soil & Water Conservation District	\$3,505.00	Williams, Karen	31-Dec-14
W11617	Cannon Beach Stormwater Planning	2011	\$30,000.00	City of Cannon Beach	\$30,000.00	Purcell, Jennifer	31-Dec-14
PROJECT #	TITLE	FUNDING YEAR	BUDGET	CONTRACT WITH	BALANCE	PROJECT MANAGER	END DATE

PROGRESS OF NPS 319 FUNDED PROJECTS (GRANT PERFORMANCE REPORT)							
W11620	South Umpqua Water Quality/HAB Monitoring	2011	\$43,474.00	Partnership for Umpqua Rivers	\$25,230.61	Tugaw, Heather	31-Dec-14
W11621	Upper Siletz Assessment and Restoration Project	2011	\$41,994.00	Lincoln SWCD	\$20,670.13	Tugaw, Heather	30-Jun-14
W11628	Coos Bay Estuary Watershed Approach to Water Quality Improvement	2011	\$39,988.00	Coos Watershed Association	\$20,157.44	Blake, Pam	30-Jun-14
W11629	MidCoast TMDL	2011	\$4,000.00	DEQ	\$4,000.00	Waltz, David	30-Jun-14
W11630	Pesticide Stewardship Partnerships	2011	\$10,137.20	DEQ	\$0.00	Masterson, Kevin	30-Jun-14
W11632	NE Oregon Pesticide Collection Event 2	2011	\$2,204.00	DEQ	\$0.00	Dombrowski, Tonya	30-Jun-14
W11634	Milton-Freewater Levee and Habitat	2011	\$9,820.04	Walla Walla Basin Watershed Council	\$9,820.04	Dombrowski, Tonya	31-Dec-14
W11635	Trask River Sediment/Turbidity Study	2011	\$34,925.00	Oregon State University	\$34,925.00	Seeds, Joshua	30-Jun-14
W12640	Salmon Safe Certification of Green Pea	2012	\$55,000.00	Oregon State University	\$55,000.00	Dombrowski, Tonya	31-Oct-15
W12641	Milton-Freewater Levee Setback	2012	\$96,000.00	Walla Walla Basin Watershed Council	\$81,916.75	Dombrowski, Tonya	31-Dec-14
W12642	Stream Simulation Trailer	2012	\$2,500.00	Grande Ronde Model Watershed Foundation	\$0.00	Dombrowski, Tonya	31-Dec-14
W12643	Filter Strip Water Quality Improvement	2012	\$25,300.00	Owyhee Watershed Council	\$21,297.02	Dombrowski, Tonya	31-Dec-14
W12644	Owyhee River Improvement Project - Phase 3	2012	\$38,000.00	Malheur SWCD	\$34,977.29	Dombrowski, Tonya	31-Dec-14
W12645	Channel Restoration Bioassessment en Eastern Oregon	2012	\$44,200.00	Oregon State University	\$35,332.45	Dombrowski, Tonya	31-Dec-14
PROJECT #	TITLE	FUNDING YEAR	BUDGET	CONTRACT WITH	BALANCE	PROJECT MANAGER	END DATE
W12646	Upper Nehalem Riparian Restoration	2012	\$52,509.00	Upper Nehalem Watershed Council	\$37,557.39	Purcell, Jennifer	30-Jun-14
W12647	Tualatin Pesticide Collection Event	2012	\$28,897.00	?	\$10,730.37	Newell, Avis	30-Jun-14

PROGRESS OF NPS 319 FUNDED PROJECTS (GRANT PERFORMANCE REPORT)							
W12648	Backyard Planting Program Year 10	2012	\$53,115.00	Tillamook County Estuary Partnership	\$41,615.00	Purcell, Jennifer	31-Dec-14
W12649	South Fork Nehalem Dairy Farm Riparian Enhancement	2012	\$17,434.00	Lower Nehalem Watershed Council	\$17,434.00	Purcell, Jennifer	30-Jun-14
W12650	Tillamook SWCD 2012 Stream Enhancement and Restoration	2012	\$35,925.00	Tillamook County SWCD	\$35,925.00	Purcell, Jennifer	30-Jun-14
W12651	Nestucca Riparian Restoration	2012	\$53,115.00	Nestucca Neskowin Watershed Council	\$29,862.40	Purcell, Jennifer	30-Jun-14
W12652	Connecting People to Water Quality	2012	\$20,000.00	Clackamas River Basin Council	\$13,309.96	Williams, Karen	30-Sep-14
W12653	Morgan Creek Assessment and Restoration Project	2012	\$45,000.00	Douglas SWCD	\$45,000.00	Fern, Jacqueline	31-Dec-14
W12654	Southern Willamette Valley Groundwater Management	2012	\$43,471.00	Lane Council of Governments	\$43,471.00	Eldridge, Audrey	31-May-14
W12655	Mid-Coast BMP Implementation Project	2012	\$45,420.00	Lincoln SWCD	\$45,420.00	Waltz, David	31-Dec-14
W12656	Stream Smart: Bear Creek Clean Water Project	2012	\$18,900.00	Bear Creek Watershed Council	\$18,357.57	Tugaw, Heather	30-Sep-14
W12658	Little Applegate Sig POD Measuring Device Project	2012	\$7,000.00	Applegate River Watershed Council	\$3,355.55	Meyers, Bill	31-Dec-14
W12659	Nitrogen Sources in Tidally-Restricted Estuary	2012	\$13,419.00	Curry County SWCD	\$7,590.06	Blake, Pamela	30-Apr-14
W12660	Garrison Lake Septic Revitalization Project	2012	\$7,186.00	Port Orford Ocean Resources Team	\$7,186.00	Blake, Pamela	31-Mar-14
PROJECT #	TITLE	FUNDING YEAR	BUDGET	CONTRACT WITH	BALANCE	PROJECT MANAGER	END DATE
W12661	South Fork Coquille River Action Plan	2012	\$14,850.00	Coquille Watershed Association	\$14,494.83	Blake, Pamela	30-Sep-14
W12662	Santiam Calapooya Water Quality Monitoring Project	2012	\$45,754.00	South Santiam Watershed Council	33150.9	Gramlich, Nancy	31-Dec-14
W12663	ODF Downstream Temperature Analysis	2012	\$30,000.00	OR Dept of Forestry	\$15,000.00	Seeds, Josh	31-Dec-14
W13700	Walla Walla River Levee Setback	2013	\$45,000.00	TBD	\$45,000.00	Dombrowski, Tonya	TBD

PROGRESS OF NPS 319 FUNDED PROJECTS (GRANT PERFORMANCE REPORT)							
W13701	Klamath Tracking and Accounting Program (KTAP)	2013	\$56,000.00	Klamath Basin Rangeland Trust	\$56,000.00	Dombrowski, Tonya	31-Dec-15
W13702	Examining the Adoption of BMPs in North Malheur County	2013	\$18,600.00	TBD	\$18,600.00	Dombrowski, Tonya	TBD
W13703	NMC WQ Improvement Outreach and BMP Demonstration Project	2013	\$44,092.00	TBD	\$44,092.00	Dombrowski, Tonya	TBD
W13704	BLM Nutrient Monitoring in the Powder Basin	2013	\$22,000.00	Powder Basin Watershed Council	\$22,000.00	Dombrowski, Tonya	31-Dec-15
W13705	Nestucca Riparian Restoration	2013	\$45,000.00	TBD	\$45,000.00	Purcell, Jennifer	TBD
W13706	Depaving and Re-Greening in the Lower Willamette River	2013	\$20,000.00	TBD	\$20,000.00	Drake, Doug	TBD
W13707	Molalla River Corridor Campsite Restoration	2013	\$15,000.00	TBD	\$15,000.00	Purcell, Jennifer	TBD
W13708	BYPP 2013-14	2013	\$40,000.00	TBD	\$40,000.00	Purcell, Jennifer	TBD
W13709	Upper Nehalem Riparian Restoration	2013	\$45,000.00	TBD	\$45,000.00	Purcell, Jennifer	TBD
PROJECT #	TITLE	FUNDING YEAR	BUDGET	CONTRACT WITH	BALANCE	PROJECT MANAGER	END DATE
W13710	Trask River Watershed Study-Sed., turb. and toxic responses	2013	\$79,411.00	TBD	\$79,411.00	Seeds, Joshua	TBD
W13711	Willamette Model Watershed Riparian Revegetation	2013	\$13,362.00	TBD	\$13,362.00	MICHIE, Ryan	TBD
W13712	Deer Creek Stream Flow, Channel	2013	\$15,048.00	Walla Walla Basin Watershed Council	\$15,048.00	Meyers, Bill	31-Dec-15
W13713	South Umpqua Water Quality Improvement Project	2013	\$41,616.00	Partnership for Umpqua Rivers	\$41,616.00	Tugaw, Heather	31-Dec-15
W13714	Thompson Creek Habitat Restoration	2013	\$16,000.00	TBD	\$16,000.00	Meyers, Bill	TBD
W13715	Model Stormwater landscapes in the S. Willamette Valley	2013	\$26,048.00	TBD	\$26,048.00	Wright, Pamela	TBD
W13716	Siuslaw Riparian Restoration and WQ Monitoring	2013	\$15,524.00	TBD	\$15,524.00	Waltz, David	TBD

PROGRESS OF NPS 319 FUNDED PROJECTS (GRANT PERFORMANCE REPORT)							
W13717	Big Elk Road Assessment	2013	\$15,524.00	TBD	\$15,524.00	Waltz, David	TBD
W13718	GW Protection Ed. To Promote Public	2013	\$47,766.00	Oregon State University	\$47,766.00	Eldridge, Audrey	30-Jun-16
W13719	Clackamas CC - Septic System Study	2013	\$30,000.00	Clackamas River Water Providers	\$30,000.00	Williams, Karen	31-Dec-15
W13720	West Hills Innovative Stormwater Demo.	2013	\$18,000.00	West Multnomah Soil & Water Conservation District	\$18,000.00	Newell, Avis	30-Mar-15
W13721	2014 Tillamook CCWF	2013	\$4,342.00	Tillamook Estuaries Partnership	\$4,342.00	Purcell, Jennifer	31-Dec-14
W13722	McKenzie WS Pesticide Reduction Project	2013	\$20,480.00	Eugene Water & Electric Board	20480	Fern, Jacqueline	30-Jun-15
W13723	Coos WA Biocriteria	2013	\$31,048.00	TBD	\$31,048.00	Blake, Pam	TBD
PROJECT #	TITLE	FUNDING YEAR	BUDGET	CONTRACT WITH	BALANCE	PROJECT MANAGER	END DATE
W13724	Agriculture Pesticide Round Up	2013	\$25,000.00	City of Island City	\$25,000.00	Dombrowski, Tonya	31-Mar-15
W13725	Walla Walla Basin PSP	2013	\$6,647.00	TBD	\$6,647.00	Dombrowski, Tonya	TBD

APPENDIX 3.

DEQ's Geographic/Programmatic Priorities for 2013 319 funded Projects						
REGION	TITLE	SUBMITTED BY	RECIPIENT	CATEGORY/TYPE OF WORK	PARAMETERS ADDRESSED	BUDGET
BMP IMPLEMENTATION						
Eastern	Examining the Adoption of BMPs in Northern Malheur County	OSU-ES	OSU	BMP Implementation	Nutrients, Sediment	\$18,600
Eastern	NMC WQ Improvement BMP Demo Project	Malheur Co SWCD	SWCD	BMP Implementation	Nutrients, Sediment	\$44,092
Northwest	Depaving and Re-Greening in the Lower Willamette	DEPAVE	DEPAVE	BMP Implementation	Stormwater, Sediment	\$20,000
Western	Model Stormwater Landscapes Willamette	LTWC	WSC	BMP Implementation	Stormwater	\$26,048
				Subtotal, BMP Implementation		\$108,740
PESTICIDE STEWARDSHIP						
Eastern	Agriculture Pesticide Round Up	Island City	Island City	Pesticide Stewardship	Pesticides	\$25,000
Eastern	Walla Walla Basin PSP	WWBWC	WSC	Pesticide Stewardship	Pesticides	\$6,647
				Subtotal, Pesticide Stewardship		\$31,647
PUBLIC OUTREACH						
HQ/ Statewide	Drinking Water GWMA Website	OSU-ES	OSU	Public Outreach	Public Education	\$16,718.00
Western	Drinking Water GWMA Website	OSU-ES	OSU	Public Outreach	Groundwater	\$31,048

REGION	TITLE	SUBMITTED BY	RECIPIENT	CATEGORY/TYP E OF WORK	PARAMETERS ADDRESSED	BUDGET
PUBLIC OUTREACH (Cont.)						
Northwest	West Hills Innovative Stormwater Demonstration	West Multnomah SWCD	SWCD	Public Outreach	Stormwater	\$18,000
Northwest	2014 Tillamook CCWF	TEP	TEP	Public Outreach	All Sources	\$4,342
Western	McKenzie Watershed Pesticide Reduction Project	EWEB	City of Eugene	Public Outreach	Pesticides	\$20,480
				Subtotal, Public Outreach		\$90,588
RIPARIAN RESTORATION						
Eastern	Walla Walla River Levee Setback	WWBWC	WSC	Riparian Restoration	Temperature	\$45,000
Northwest	Nestucca Riparian Restoration	NNWSC	WSC	Riparian Restoration	Temperature, Sediment	\$45,000
Northwest	Molalla River Corridor Campsite Restoration	Molalla River WSC	WSC	Riparian Restoration	Temperature, Sediment	\$15,000
Northwest	BYPP 2013-14	TEP	TEP	Riparian Restoration	Temperature, Sediment	\$40,000
Northwest	Upper Nehalem Riparian Restoration	UNWC	WSC	Riparian Restoration	Temperature, Sediment	\$45,000
HQ/ Statewide	Trask River Watershed Study - Sediment, Turbidity and Biotic Responses Following Forest Harvest and Road Management	OSU	OSU	Riparian Restoration	Sediment	\$79,410.50
HQ/ Statewide	Willamette Model Watershed Riparian Revegetation	BEF	BEF	Riparian Restoration	Bacteria, Dissolved Oxygen, Sediment	\$8,359.00
Western	Deer Creek Stream Flow, Channel and Floodplain Restoration	IVSWCD	SWCD	Riparian Restoration	Temperature, Sediment	\$15,048
Western	Thompson Creek Habitat Restoration	Applegate Partnership	WSC	Riparian Restoration	Temperature, Shade	\$16,000

REGION	TITLE	SUBMITTED BY	RECIPIENT	CATEGORY/TYP E OF WORK	PARAMETERS ADDRESSED	BUDGET
RIPARIAN RESTORATION (Cont.)						
Western	Siuslaw Riparian Restoration and Water Quality Monitoring	Siuslaw WC	WSC	Riparian Restoration	Temperature, Sediment, Dissolved Oxygen	\$15,524
Western	Willamette Model Watershed Riparian Revegetation	BEF	BEF	Riparian Restoration	Bacteria, Dissolved Oxygen, Sediment	\$5,003
				Subtotal, Riparian Restoration		\$329,345
WATER QUALITY ASSESSMENT						
Western	Big Elk Road Assessment	Lincoln SWCD	SWCD	Water Quality Assessment	Sediment, Bacteria, Temperature	\$15,524
Eastern	Klamath Tracking and Accounting Program	KBRT	Klamath Basin Range Trust	Water Quality Assessment	Temperature, Nutrients, Dissolved Oxygen	\$56,000
Eastern	BLM Nutrient Monitoring in the Powder Basin	BLM	BLM	Water Quality Assessment	Nutrients	\$22,000
Western	South Umpqua Water Quality Improvement Project	PUR	PUR	Water Quality Assessment	Dissolved Oxygen, Temperature, Bacteria	\$41,616
Northwest	Clackamas CC - Septic System Study	Clackamas R. Water Provider	Island City	Water Quality Assessment	Septic System	\$30,000
Western	Coos Watershed Assessment Biocriteria	Coos Watersheds	Coos Watersheds	Water Quality Assessment	Stormwater	\$31,048
				Subtotal, Water Quality Assessment		\$196,188
				TOTAL, 2013 319 Projects		\$756,508

APPENDIX 4.

2013 Oregon 319 Nonpoint Source Implementation Grants Final Application Request for Proposals

Oregon 319 Nonpoint Source Implementation Grants Final Application

Request for Proposals

Fiscal Year 2013



State of Oregon
Department of
Environmental
Quality



This report prepared by:

Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204
1-800-452-4011
www.oregon.gov/deq

Contact:
Ivan Camacho
(503) 229-5088

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Section A: Request for Final Application

Oregon 319 Nonpoint Source Implementation Grants Application Fiscal Year 2013

The Oregon Department of Environmental Quality (DEQ) is pleased to notify you that you have been selected to submit a Final Application for the §319 Nonpoint Source (NPS) Implementation Grants. In Oregon, approximately \$900,000 of federal grant dollars is expected for 2013, pending EPA budget approval. Funding and oversight of selected proposals will be administered by the DEQ NPS Water Quality Program staff.

DEQ will evaluate final application submittals received on or before March 1, 2013 and select projects to be recommended for EPA funding. DEQ expects to submit project recommendations to EPA by May of 2013. Successful projects may commence in the fall of 2013.

1. PROJECT REQUIREMENTS

Grant recipients and the proposed project must meet the following minimum requirements:

- a) Proposals that are selected for funding must provide **at least forty-percent** of the total project cost with non-federal funds and/or in-kind services, such as volunteer labor. Successful grant recipients are expected to submit **documentation of project match to DEQ** along with quarterly invoices.

To calculate the minimum required match, *multiply the amount of 319 funds you are requesting for your project by two-thirds.*

For example, if the 319 contribution cost to the proposed project is:	The match would be calculated by multiplying by 2/3	Total cost of project would be:
\$100,000	\$66,000	\$166,000
\$45,000	\$29,700	\$74,7000

Applicants are encouraged to investigate partnering opportunities with the Oregon Watershed Enhancement Board grant program: <http://www.oregon.gov/OWEB/GRANTS/index.shtml>

- b) Applicants with projects that include a water quality monitoring component will be required to **develop sampling and analysis procedures, methods and strategy**. For information on this subject, please refer to the documents listed on the DEQ web page: <http://www.deq.state.or.us/lab/techrpts/technicaldocs.htm>. Successful applicants proposing a monitoring strategy will be required to:
- Develop a sampling plan for DEQ approval prior to data collection.
 - Submit electronic data to DEQ at the conclusion of the project.
- c) Grant Recipients must enter into a **Grant Agreement** with the State Oregon to receive funds. The State of Oregon requires the following documentation for execution of Grant Agreements (this documentation is **not required at the time of Final Application**, but will be needed prior to awarding funds):
1. Signed “Grant Agreement” form (the “contract”) – provided by DEQ and signed by the grantee organization.

Oregon Nonpoint Source Program 2013 Annual Report

2. Signed Data Universal Numbering System/Federal Funding Accountability and Transparency Act (DUNS/FFATA) Certification form– provided by DEQ and signed by project implementers.
(Note: The DUNS/FFATA Certification indicates that the organization has a DUNS Number and is eligible to receive federal funds: www.fsrs.gov)
 3. If the Grant Recipient would like to bill for indirect costs, DEQ approval is required. One option is to request a 10% Administrative Allowance as a percentage of total project cost. The second option is for DEQ to review and approve an existing and current Cost Allocation Plan (CAP) and Indirect Cost (IDC) Rate Agreement, with their assigned cognizant agency; or if one is not in place, the grant recipient may choose to submit an IDC rate proposal to DEQ for review. Neither of these two options is required; the sub-recipient may choose to be reimbursed only for direct costs.
 4. Agreement to enter project implementation information in the Oregon Watershed Restoration Inventory. (This database tracks detailed information about restoration efforts undertaken as part of the Oregon Plan for Salmon and Watersheds).
- d) Organizations are required to make a good faith effort to **hire disadvantaged businesses**. A list of [disadvantaged business enterprises](#) is available on Oregon Business Development Department's website or on the [U.S. Small Business Administration site](#). For assistance, contact Ivan Camacho at (503)229-5088, or camacho.ivan@deq.state.or.us.
- e) **Annual progress reports** and a **final report** are required. Progress reports are intended to allow grantees to consider, and share information regarding progress toward meeting performance targets, and allow DEQ staff to offer assistance in meeting those targets.

2. EVALUATION CRITERIA

DEQ staff will evaluate submissions based on the following criteria:

- Clear description of the water quality or habitat problem
- Potential to achieve measurable results
- Project work plan that clearly describes tasks and timeline
- Evidence that organization is capable of completing proposed project
- Complete and reasonable budget
- Commitment from applicant's partners and other project collaborators

3. HOW DO I APPLY?

Submit a signed copy of the Final Application (Section B of this document) via mail or hand delivered to the appropriate DEQ office, by **5:00 pm on March 1, 2013**. Please also submit an electronic copy, in Microsoft Word or PDF file formats, to Ivan Camacho at camacho.ivan@deq.state.or.us. Facsimiles are not accepted.

If you are submitting large files (over 6 MB), please save them on a compact disk (CD) and send to:

Oregon Department of Environmental Quality
Attention: Ivan Camacho
811 SW 6th Avenue
Portland, OR 97204

Oregon DEQ Regional Offices		
Office	Address	Phone number
Bend	475 NE Bellevue Dr., Suite 110 Bend, OR 97701	(541) 388-6146
Coos Bay	381 N. Second St. Coos Bay, OR 97420	(541) 269-2721
Eugene	165 East 7th Avenue, Suite 100 Eugene, OR 97401	(541) 686-7838
Medford	221 Stewart Ave., Suite 201 Medford, OR 97501	(541) 776-6010
North Coast Branch Office	65 N Highway 101, Suite G Warrenton, OR 97146	(503) 861-3280
Northwest Region	2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987	(503) 229-5263
Pendleton	700 SE Emigrant, #330 Pendleton, OR 97801	(541) 276-4063
Salem	750 Front St NE, #120 Salem, OR 97301-1039	(503) 378-8240
The Dalles / Columbia Gorge	400 E Scenic Dr., #307 The Dalles, OR 9705	(541) 298-7255
Tillamook Office	2310 First Street, Suite 4 Tillamook, OR 97141	(503) 842-3038

4. PROJECTED TIME TABLE FOR CONTRACT PROCESSING

Final funding decisions will be made by May 2013. Total time to process a grant agreement once the Pre-Proposal is received from an organization is approximately 6-8 months, as shown in the following table:

PROCESS	ESTIMATED TIME FRAME
Following pre-proposal reviews, DEQ invites specific organizations to submit full project proposals.	January 18, 2013
Deadline for submittal of full proposals	March 1, 2013
DEQ makes final selection of proposals to receive funding, and submits recommendations to EPA for review.	March/April 2013
DEQ notifies applicants of funding recommendations.	May 2013
DEQ and Grant Recipient draft scope of work, as part of a NONPOINT SOURCE IMPLEMENTATION GRANT AGREEMENT (Appendix A) and send to partner organizations for review.	Following EPA approval (generally in June)
DEQ Contract Office reviews grant agreement*.	July-August* 2013
Signature process and approval.	August – September* 2013
Project may begin.	Fall 2013

*If an organization has not submitted necessary documentation, this process may be delayed. This process may also be delayed by EPA review and budget approval.

5. FOR MORE INFORMATION

For information and assistance regarding grant applications, please contact Ivan Camacho at (503) 229-5088 or refer to the DEQ staff contact information, for regional staff contacts. You can also visit:

<http://www.deq.state.or.us/about/locations.htm> for a list of regional offices and addresses.

DEQ staff contact information

REGION	BASIN	STAFF	PHONE #
	Deschutes Basin	Bonnie Lamb	(541) 633-2027
	Goose and Summer Lakes	Tonya Dombrowski	(541) 278-4615
	Grande Ronde, Imnaha, Wallowa Basins	Don Butcher	(541) 278-4603
	Hood Basin	Bonnie Lamb	(541) 633-2027
	John Day Basin	Don Butcher	(541) 278-4603
	Klamath Basin	Steve Kirk	(541) 633-2023
	Malheur Lakes Basin (Steens and Alvord area)	Tonya Dombrowski	(541) 278-4615
	Malheur River Basin (including Willow and Bully Creeks)	John Dadoly	(541) 278-4616
	North Malheur County and Lower Umatilla Basin GWMA	Phil Richerson	(541) 278-4604
	Owyhee River Basin	John Dadoly	(541) 278-4616
	Powder River Basin (including Powder, Burnt and Brownlee Subbasins)	John Dadoly	(541) 278-4616
	Snake River-Hell's Canyon	Tonya Dombrowski	(541) 278-4615
	Umatilla Basin	Don Butcher	(541) 278-4603
	Walla Walla Basin	Don Butcher	(541) 278-4603
	Willow Creek Subbasin	Don Butcher	(541) 278-4603
Northwest	Clackamas & Sandy Basins	Steve Mrazik	(503) 229-5379
	Molalla & Pudding Basins	Karen Williams	(503) 229-6254
	Tillamook & North Coast Basins	Jennifer Purcell	(971) 212-5745
	Tualatin Basin	Avis Newell	(503) 229-6018
	Willamette- Lower	Doug Drake	(503) 229-5350
Statewide	Drinking Water Source Protection	Sheree Stewart Jacqueline Fern	(503) 229-5413 (541) 686-7898
	Monitoring, Quality Assurance	Steve Hanson	(503) 693-5737
	NPS Education	Ivan Camacho	(503) 229-5088
	Riparian Forest Restoration	Ryan Michie	(503) 229-6162
	State Revolving Fund	Larry McAllister	(503) 229-6412
Western	Drinking Water Source Protection	Jacqueline Fern	(541) 686-7898
	Mid-Coast Basin	David Waltz	(541) 687-7345
	Rogue Basin	Bill Meyers Heather Tugaw	(541) 776-6272 (541) 776-6091
	South Coast Basins	Pam Blake	(541) 269-2721 x227
	Southern Willamette Valley GWMA	Audrey Eldridge	(541) 776-6029
	Umpqua Basin	David Waltz Heather Tugaw	(541) 687-7345 (541) 776-6091
	Willamette – Middle, including North Santiam, Pudding, Yamhill	Nancy Gramlich	(503) 378-5073
	Willamette – Upper, including S. Santiam, Coast Fork, McKenzie, Middle Fork	Pamela Wright	(541) 686-7719

Section B: Section 319 Grant Final Application Form

I. Applicant Information

Application Title:

Organization Name:

Type of Organization (e.g. watershed council, county, non-profit, etc.)

DUNS Number

Federal Tax ID Number

Proposed Start Date

Proposed End Date

Signature of Applicant: _____

Date of signature: _____

A required copy of the Pre-Proposal is attached: Yes No

II. Project Location

12- Digit Hydrological Unit Code (HUC).

Use the following link to identify the 12-digit HUC: <http://map24.epa.gov/mwm>

III. Project Work Plan

The Project Work Plan needs to be submitted on the Work Plan Form (Excel worksheet). Please provide a description of tasks associated with your project, including sub-tasks, if necessary. For each task and sub-task, identify the resulting product(s), and identify which staff person or other agency will be responsible for carrying out the task. Provide the estimated budget breakdown. Totals must balance with the budget.

Project Work Plan is attached: Yes No

IV. NPS Pollution Load Reduction

Please provide a list of pollutants that will be targeted and 303(d) listed waterbodies. Estimate the nonpoint source pollutant load reduction, where applicable, and describe how the project will track the resulting load reductions and projected improvements in water quality conditions.

V. Project Evaluation

Successful 319 applications receiving funding are required to evaluate or estimate the water quality improvements resulting from the project. The evaluation component of your project should be designed to detect changes that result from the project using metrics appropriate to the project and the stated goals.

When developing your project evaluation strategy, consider that environmental improvement typically requires assessment over several years, if not decades. It is also important to consider the scale of change that will result from your project (site specific, stream reach, sub-basin or larger). In addition, consider linkages to ongoing monitoring efforts such as those conducted by the state, local government and volunteer groups that will be carried out during the project time frame.

Please describe your strategy for project evaluation. Describe how the project implementation will be evaluated and how evaluation results will be used, including how success will be defined, estimated or calculated, and an evaluation time frame (even if it extends beyond the time frame of the grant).

VI. Monitoring

Applicants proposing to perform environmental measurements as part of the project or evaluation (water quality, macro-invertebrate populations, stream morphology, etc.); describe the purpose of the monitoring and the data management and statistical analysis to be applied to the data.

Complete the following table as part of this section. If appropriate, include a map of the project area identifying sampling locations and proposed parameters.

Parameter	Analytical Technique	Number of Sample Locations	Sampling Frequency

All projects that include water quality monitoring activities for evaluating or project guidance will be required to submit a Quality Assurance Project Plan (QAPP) as part of the final NPS Agreement for review and approval by DEQ (not with this application). Until a QAPP has been approved by DEQ, grant funds for monitoring activities will not be released and/or match funds addressed by monitoring activities will not be credited. Please contact the appropriate NPS Program Staff listed in section A.5 above for additional information and guidance. Applicants are encouraged to contact DEQ Volunteer Monitoring Coordinator, Steve Hansen (503) 693-5737 to receive advice and assistance in developing the project proposal or in project implementation.

VII. Organization Information

Briefly describe your organization’s capability to implement the proposed project. Include a description of the relevant qualifications of the organization and project staff that will ensure the success of the project.

VIII. Partners and Related Funding

EPA 319 Grant funds require a 40% match in non-federal funds. Match can be in the form of cash, or in-kind contributions from your organization or project partners. Letters of support or commitment are required from all funding partners committing a specific amount of time, money, activities, or other resources reflected in the budget.

In the table below, it shows all anticipated funding sources and indicate, by checking in the appropriate box, the nature of each contribution. Be sure to provide a dollar amount or value for

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each funding source. If participation is in-kind, briefly describe the nature of the contribution in the first column.

Funding Source (if in-kind, briefly describe the nature of the contribution)	Cash (X)	In-kind (X)	Secured (X)	Pending (X)	Amount/Value
					\$
					\$
					\$
					\$
					\$
					\$
Total Estimated Match Funds					\$

IX. Project Budget

The Project Budget needs to be submitted on the Project Budget Form (Excel worksheet), which can be accessed from DEQ's NPS Implementation 319 Grants webpage.

Budget Form is attached: Yes No