

Oregon Nonpoint Source Program Annual Report for 2015

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Watershed Management

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



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Executive Summary

Background

This Nonpoint Source Pollution (NPS) Program 2015 annual 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 2015. DEQ revised in 2014 the state's NPS Management Program Plan following EPA's guidance.

General Description of Report

The report contains the following elements:

- Description of Oregon's NPS Program.
- Description of Oregon's Baseline Regulatory Statutes and Non-Regulatory NPS Programs.
- Program Directions and Priorities in 2015.
- 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 2015 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 2015 319 Funding, and progress of 2015 – 319-Grant Funded Projects and Categories.
- Calculated Nitrogen, Phosphorus, and Sedimentation-Siltation Pollutant Load Reduction Estimates of 2014 Funded Projects.
- Description of DEQ's Watershed-Based Plans.
- Success Stories/Environmental Improvement (WQ-10) and (SP-12) Projects and Other.

Program Directions

DEQ continues to implement the NPS Program and direct funding into basins impaired by NPS pollution. DEQ prioritizes work from a variety of input and by using TMDLs, other analysis, watershed plans for implementation of the watershed approach. In addition, DEQ began developing TMDLs with improved Reasonable Assurance for nonpoint source: identification; implementation planning with milestones and timelines; and tracking and reporting of implementation. These TMDLs and WQMPs 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

General Description of Report

This **Oregon Nonpoint Source Pollution Program 2015 Annual Report** meets 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) 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 2015. As described below, Oregon is making progress toward meeting the substantial challenges presented by NPS water pollution.

Highlights

The State program continues to use innovative, cooperative, and community-based methods to improve water quality affected by nonpoint sources of pollution.

319 Grants Fiscal Year 2015

EPA reduced DEQ's 2015 319 grant funds because EPA and NOAA determined that Oregon did not submit a fully approvable Coastal Nonpoint Control Program under the Coastal Zone Act Reauthorization Amendments (CZARA). The Program was not fully approvable because of gaps in Oregon's program related to forestry to meet or maintain water quality standards and protect beneficial uses. EPA notified DEQ that Oregon's 2015 Grant funds will be redistributed to other states and territories that have approved coastal nonpoint programs. The 2015 319 pass-through funds available in Oregon was reduced from \$712,351 to a total of \$80,851.

Oregon's 2015 319 grant funded positions are working on the following NPS program activities (see Performance Partnership Agreement section for details):

- Management of Nonpoint Sources of Pollution
- Water Quality Standards and Assessments
- TMDLS
- Groundwater Program
- Water Quality Data Analysis, Management and Monitoring

Total Maximum Daily Load Program

2015 accomplishments

- Continued to develop the Deschutes, Powder/Burnt, Coquille and Mid-Coast basin TMDLs. Continued work to revise the Hood River temperature TMDL and the Klamath and Lost Rivers nutrient TMDLs. Continued working on TMDL implementation and implementation plan development in the Willamette, Rogue, Umpqua, Klamath, Tillamook, North Coast and other basins with issued TMDLs.
- The first Willamette 5-year review was completed and assessed in 2014. The results were used to document successes and strategies for focusing on TMDL priorities. Highlights from the first 5-year review can be viewed in the [Five Year DMA Report](#). A 5-year review for the Mollala-Pudding was completed in 2016 and is currently being reviewed and assessed.
- Track and report on administrative and environmental outcomes from water quality restoration and protection efforts to meet TMDL allocations

2015 – 2017 expected results

- Submit Coquille, Hood River, and Klamath and Lost River TMDLs and some of the MidCoast TMDLs to EPA for approval. Continue working on TMDL implementation and implementation plan reviews and report reviews in the Willamette, Rogue, Umpqua, Klamath, Deschutes, John Day, Tillamook, North Coast and other basins with issued TMDLs. For Willamette-specific information refer to Table 3.
- Continue to use TMDL implementation priorities as one of several considerations for prioritizing 319 grant activities in basins to address nonpoint sources of pollution
- Willamette Basin Coordinators will continue to work with DMAs to implement strategies aimed at meeting TMDL targets and goals. Specifically, Basin Coordinators facilitated seven technical assistance workshops 2015-2016 for DMAs and will facilitate another three to four TA workshops in 2017. For more information on TA workshops see Table 3 on page 25.
- Track and report on administrative and environmental outcomes from water quality restoration and protection efforts to meet TMDL allocations.

Nonpoint Source Program

2015 accomplishments

- Distributed \$88,501 in 2015 319 grants to fund projects in Oregon's priority basins and groundwater management areas
- Continued progress on nonpoint source projects initiated prior to 2015 including implementation of best management practices, riparian restoration, outreach and education, stormwater management, monitoring, etc.
- Updated Oregon's Nonpoint Source Management Program Plan
- Prepared the 2015 Annual Report of Nonpoint Source Program accomplishments
- Participation in the process for a Forest Practices Act riparian rule change for Salmon, Steelhead, and Bull Trout (SSBT) streams on private forestlands.
- Ongoing improvements in how the Agriculture Water Quality Program is implemented by ODA and DEQ's role in the process, including providing comments to ODA during biennial reviews of agriculture area rules and plans, selection of Strategic Implementation Areas, and methods for evaluation of landscape metrics related to water quality standards or TMDL allocations.

- Ensured state water quality protection needs met during writing of BLM's Resource Management Plans for Western Oregon

2015 – 2017 expected results

- Prepare an annual report of Nonpoint Source Program accomplishments
- Track and report on administrative and environmental outcomes from water quality restoration and protection efforts
- Continue to work with the Oregon Department of Agriculture, Oregon Department of Forestry, and other Designated Management Agencies to address nonpoint source issues associated with agriculture, forest, or urban land uses.
- Make further progress on a draft approvable Coastal Nonpoint Pollution Control Plan
- Update Memorandum of Understanding with the Bureau of Land Management
- Improve utility and consistency of Annual Reporting from US Forest Service and BLM 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 TMDLs, 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. 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 criteria to protect designated beneficial uses.
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. Biennial assessment of State waters to identify those waters that are not meeting water quality standards through completion of the 305(b) report and the 303(d) list.
5. Pretreatment, Sewage Sludge Management, and On-Site System programs to ensure that water quality is not compromised by other land-based activities.
6. Development of TMDLs, which are limits on pollution from point or nonpoint sources intended to bring rivers, lakes, and streams into compliance with water quality standards.
7. 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 through the Clean Water State Revolving Fund.
8. 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.
9. 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.

10. Water quality and biological monitoring to track attainment of water quality standards, protection of beneficial uses, and program success in maintaining and restoring the same.

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

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

DEQ is committed to developing and leveraging partnerships with other agencies, organizations, and individuals (e.g. communities, watershed councils and landowners) to achieve desired environmental outcomes in the most cost-effective manner. Examples are included in many of the NPS Success Stories that resulted from the coordinated efforts of various agencies. 319 grant funds have been a critical method for engaging local partners in water quality improvement projects. DEQ is able to more easily focus partners toward projects that have water quality benefits when the agency has 319 funds to contribute. A couple examples of this occur on the North Coast Basin in Oregon. DEQ provided the Tillamook Estuaries Partnership with funding to begin their Volunteer Water Quality Monitoring Program in 1997. The project has been sustained independent of 319 dollars since its initial beginning and has expanded to cover all bacteria listed stream reaches in Tillamook County. Similarly, DEQ 319 grant funds have begun and maintained several riparian restoration projects in the North Coast to restore hundreds of miles of stream side vegetation. The programs include TEP's Backyard Planting Program, Nestucca-Neskowin Watershed Councils Riparian Restoration Program and the Upper Nehalem Watershed Council's Riparian Restoration Program. Water quality trading is another example, such as the City of Medford's wastewater permit which relies upon the coordinated efforts of public and private entities to ensure compliance with permit requirements, restore degraded riparian areas, and cost half as much as a traditional engineered approach. These types of partnerships are evident throughout the Water Quality Program, including several new or expanded initiatives such as the following:

- Development of the Mid-Coast TMDLs requires a significantly higher level of stakeholder engagement to develop TMDLs with improved Reasonable Assurance for nonpoint source: identification; implementation planning with milestones and timelines; and tracking and reporting of implementation. Water Quality Management Plans associated with these TMDLs utilize expertise of other organizations and landowners to include management measures that should meet the load allocations and surrogate measures established in the TMDLs. Designated Management Agencies' Implementation Plans must include the management measures or measures which are equivalent in their effect.
- Effectiveness monitoring using 319 funds in National Water Quality Initiative (NWQI) watersheds where the Natural Resources Conservation Service (NRCS) would focus its investments to improve water quality. DEQ and its partners will be developing and implementing the effectiveness monitoring projects in those watersheds during 2014-2019.
- 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.
- Basin Coordinators are also participating in OWEB Regional Review Teams (RRT). The RRT rate and prioritized Restoration and Monitoring projects that will have the most effective benefits to water quality and ecosystem health. Participating on the RRT allow DEQ an opportunity to communicate water quality priorities to other agencies and partners who form the RRTs.
- Willamette Basin Coordinators participate on the OWEB interagency grant review teams to assist with the prioritization of funding and as well as provide support for projects that relate to TMDL load allocations. DEQ Basin Coordinators also participate on technical teams specifically for temperature load allocations in the Willamette, e.g. the Habitat Technical Team, for the Willamette Biological Opinion through the BPA and Army Corps.

Supporting and encouraging implementation of TMDLs.

DEQ has identified TMDL implementation for nonpoint sources with milestones and timelines; and tracking and reporting of implementation as a priority for TMDLs in development and for evaluating issued TMDLS. These efforts include:

- Refer for Table 3 for examples of technical assistance provided by Willamette Basin Coordinators in regards to implementation.
- 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 for the Agricultural Water Quality Management Program. Analysis of existing data and identification of data needs will be evaluated and standardized as appropriate. Data gaps will be filled as resources allow, using a combination of state agency, federal agency, and volunteer monitoring.
- During the biennial reviews 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 and meeting water quality standards. DEQ and ODA are examining the structure of the Biennial Reviews to determine which portions would be better evaluated at the statewide, programmatic level, how to standardize the analysis, interpretation, and reporting of water quality data, provide better information to landowners, and create reasonable assurance that management will adapt and change in response to information. The Strategic Implementation Areas designated by ODA focus education, enforcement, and restoration actions in specified watersheds to get detailed information, increase compliance with Area Rules, and speed adoption of Area Plans.....
- DEQ took a central role in the evaluation of Oregon Department of Forestry's riparian rules on fish-bearing streams with regard to the Protecting Cold Water criterion of the temperature standard. New rules for fish-bearing streams with salmon, steelhead, or bull trout are in the process of adoption. Efforts are underway to evaluate the adequacy of best management practices for small and medium fish-bearing streams, non-fish-bearing streams, landslide-prone areas, and roads to meet water quality standards and TMDL load allocations. Additional regulatory and/or voluntary measures may be necessary, particularly in the coastal zone to meet requirements of the Coastal Zone Management Act.
- Five year reviews of TMDLs are performed as necessary and as resources allow to capture progress in water quality restoration, update load allocations, and ensure that management measures are directed at appropriate targets.

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 Strategy for Monitoring Oregon's Waters. Monitoring 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. DEQ's current water quality monitoring activities collect data across Oregon.

- DEQ toxics monitoring program completed a five year screening project for toxic contaminants in Oregon's rivers, streams and lakes. Locations were targeted to identify contaminants in water but can also include contaminants in streambed sediment and fish tissue. A report summarizing

the findings is nearing completion and will be used to select locations and toxic pollutants for ongoing monitoring.

- Long-term ambient water quality monitoring of conventional water quality parameters and pollutants (e.g. temperature, conductivity, total phosphorous) 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.
- TMDL monitoring continues to provide data targeted for TMDL development and some effectiveness monitoring.
- Groundwater monitoring continues in groundwater management areas with nitrate concentrations of concern. Additional groundwater screening outside of GWMA's began in the spring of 2015 and will rotate to two new areas each year. Sampling will include nitrates, arsenic and pesticides of concern.
- Beach bacteria monitoring is currently ongoing along the Oregon coast to provide data for beach advisories to protect contact recreation, this is a national collaboration to sample coastal water, rivers, streams, and other waterbodies using a probabilistic survey design.
- In 2015, DEQ continued to support monitoring analysis of current use pesticides in eight (8) watersheds for the Pesticide Stewardship Partnership. In addition, DEQ did pilot work in two new watersheds in 2015 to investigate areas where ongoing pesticide monitoring may be needed.
- In 2015, DEQ participated in the National Coastal Conditions Assessment by collecting biological and chemical samples at 22 locations in Oregon, this is a national program to assess the condition of coastal waters for ecological and recreational purposes.
- Facilitate volunteer monitoring activities through trainings, monitoring plan development, quality control checks, and data integration. DEQ is working on the acquisition of a new data repository to house environmental monitoring data including volunteer data.
- Using macroinvertebrate assemblages at reference sites to characterize environmental tolerances of various taxa, DEQ can assess whether macroinvertebrates are impaired and infer the nature of potential stressors. In 2015 DEQ collected macroinvertebrate samples at approximately 60 locations in the Tillamook and Umatilla watersheds to interpret watershed health.

Partners

The cornerstone of the Oregon water quality program is 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. Given that in recent years, state and federal funding for DEQ's clean water work has declined, both in real dollars and in what those dollars can buy, the use of partnerships is very important for making the most of limited resources. DEQ works with watershed councils, OWEB, and SWCDs on monitoring and restoration projects. We have actively collaborated with NRCS and ODA on agricultural practices and targeting restoration and protection activities. Cities and counties are important partners in TMDL implementation. Collaboration between ODF, ODFW, and DEQ has been key in advancing protections on a subset of fish-bearing streams on private forestlands. Evaluation of landslide hazards on steep landscapes has relied on scientific cooperation between DEQ and DOGAMI. DEQ and other state agencies have been active partners in water quality-related efforts on federal forestlands, such as the crafting of riparian protections in BLM's new Western Oregon Resource Management Plans.

Local Partners

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

State Agencies

- Oregon Department of Agriculture (ODA) <http://www.oregon.gov/ODA/Pages/default.aspx>
- Oregon Department of Forestry (ODF) <http://www.oregon.gov/odf/Pages/index.aspx>
- Oregon Health Authority (OHA) <http://www.oregon.gov/oha/Pages/index.aspx>
- Oregon Parks and Recreation Department (OPRD)
<http://www.oregon.gov/OPRD/Pages/index.aspx>
- Oregon Department of State Lands (DSL) <http://www.oregon.gov/DSL/pages/index.aspx>
- Oregon Department of Geology and Mineral Industries (DOGAMI)
<http://www.oregongeology.org/sub/default.htm>
- Oregon State Marine Board (OSMB) (Boat Ramps and Other Access Points) (Marine Board)
<http://www.oregon.gov/OSMB/Pages/index.aspx>
- Oregon Watershed Enhancement Board (OWEB)
<http://www.oregon.gov/OWEB/pages/index.aspx>
- Oregon Department of Fish and Wildlife (ODFW) www.dfw.state.or.us
- Oregon Department of Land, Conservation and Development (DLCD)
<http://www.oregon.gov/lcd/Pages/index.aspx>
- Department of Oregon Business Development (OBD) <http://www.oregon4biz.com/>
- Oregon Department of Transportation (ODOT) <http://www.oregon.gov/ODOT/Pages/index.aspx>

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=land ing>

Tribes

- [Burns Paiute Tribe](http://www.burnspaiute-nsn.gov/) <http://www.burnspaiute-nsn.gov/>
- [Confederated Tribes of Coos, Lower Umpqua, and Siuslaw](http://ctclusi.org/) <http://ctclusi.org/>
- [Confederated Tribes of the Grand Ronde Community of Oregon](http://www.grandronde.org/) <http://www.grandronde.org/>
- [Confederated Tribes of Siletz Indians of Oregon](http://ctsi.nsn.us/) <http://ctsi.nsn.us/>
- [Confederated Tribes of the Umatilla Indian Reservation](http://ctuir.org/) <http://ctuir.org/>
- [Confederated Tribes of Warm Springs Reservation of Oregon](http://www.warmsprings.com/) <http://www.warmsprings.com/>
- [Coquille Indian Tribe](http://www.coquilletribe.org/) <http://www.coquilletribe.org/>
- [Cow Creek Band of the Umpqua Tribe](http://www.cowcreek.com/) <http://www.cowcreek.com/>
- [Klamath Tribes](http://www.klamathtribes.org/) http://www.klamathtribes.org

2. Oregon's Water Resources

Integrated Water Resources Strategy

The Oregon Water Resources Commission adopted the state's first Integrated Water Resources Strategy on August 2, 2012. The Strategy provides a blueprint to help the state better understand and meet its instream and out-of-stream needs, taking into account water quantity, water quality, and ecosystem needs.

The fundamental purpose of this document is to understand Oregon's water needs and to articulate a strategy to meet those needs into the future. Although the Integrated Water Resources Strategy is ambitious (there are not currently enough resources to fully implement all of the actions listed here), the intent of the Strategy is to provide a blueprint for future actions. Water is one of the world's most precious natural resources. With more than 100,000 miles of rivers and streams, 360 miles of coastline, and more than 1,400 named lakes, Oregon is renowned for its water. Our rivers, streams, lakes, wetlands, springs, and aquifers provide a wide range of benefits to all Oregonians. This clean and reliable source of water is essential for meeting our basic human needs, and for supporting Oregon's economy—the thousands of businesses and industries that rely upon water in some form, to irrigate a crop, to manufacture a product, or to provide a service or experience. Oregon's economy, in turn, is dependent upon a healthy environment where water resources play an essential part. Fish and wildlife need a sufficient quantity and quality of water—from the rivers, lakes, wetlands, and estuaries—to live, reproduce, and thrive. A healthy environment includes fully functioning ecosystems that are able to support our commercial and recreational needs and a quality of life unique to Oregon and the Pacific Northwest.

Flow volume is identified as a limiting factor in several TMDLs. Decreases in flow are directly related to increases in stream temperature when energy inputs are held constant, for example. Lower flows increase the difficulty of meeting permit conditions for concentrations of organic matter or toxic pollutants, and generally reduce the assimilative capacity of waterbodies for all pollutants. Watershed modifications that increase erosion can also create flashier flows, as there can be a connection between hydrograph behavior and the introduction of pollutants into waterbodies. Flow modifications, such as dams, have significant water quality implications. Given the several connections between water quantity and quality, aligning efforts to address one or the other is needed to achieve efficient allocation of water resources and water quality protection and restoration.

3. Oregon's Nonpoint Source Program

Description of NPS Program

Oregon's NPS Program intends 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) <https://www.oregon.gov/deq/wq/programs/Pages/Nonpoint-Plan.aspx> 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.

A staff person is assigned to cover each Groundwater Management Area (GWMA) and basin/subbasin, respectively. These staff take the lead role during TMDL development and implementation, as well as implementation of projects that monitor and work to restore groundwater quality within Oregon's three GWMAs. 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 solutions for local problems to achieve water quality improvements in a sustainable way.

Oregon NPS Management Program Plan

Section 319 of the federal Clean Water Act requires states to have a 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 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 long-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 Nonpoint Source Management Program Plan was approved by EPA in 2015 (<http://www.deq.state.or.us/wq/nonpoint/plan.htm>) and was developed based on EPA's 2012 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. EPA guidance requires states to update their NPS Management Program Plan every five years.

Oregon NPS Program Funding

Information on the funded projects with Section 319(h) grants by the DEQ in watersheds across Oregon can be found through the EPA's Nonpoint Source Grants Reporting and Tracking System (GRTS). GRTS is the primary tool for management and oversight of state Nonpoint Source (NPS) Management Programs under Section 319 of the Clean Water Act. The Oregon DEQ uploads information into GRTS as it becomes available.

Clean Water State Revolving Fund

In 2015 DEQ made no Clean Water State Revolving Fund (CWSRF) loans to nonpoint source projects. This is very unusual. Almost every year nonpoint source project(s) are funded by CWSRF, Since the loan program's inception in 1989, DEQ has provided \$75 million for various nonpoint source projects.

For almost two decades, DEQ's CWSRF staff has administered Oregon's implementation of EPA's Clean Watershed Needs Survey. This national survey and other recent studies consistently indicate nonpoint sources of pollution continue to be an important source of water impairment. DEQ's CWSRF loan program continues to scrutinize effective avenues to financial support projects addressing nonpoint source pollution.

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 2015, eight DWRLF projects were recommended for funding with funding awards totaling \$137,900. The projects will address the following nonpoint source issues: septic system impacts to groundwater and nearby streams in the Coast Fork Willamette River watershed and the Molalla River watershed; identifying and overcoming barriers to nitrate reducing practices in the Southern Willamette Valley GWMA; water quality improvement partnership in the Bear Creek watershed of the Rogue Basin; non-chemical roadway vegetation management in the north coast; developing a forest inventory and drinking water source protection plan in the South Fork Necanicum River watershed, and developing a drinking water source area public education display in the Tualatin River watershed. In addition, in 2015 turbidity threshold sampling equipment (purchased by the Cities of Newport and Toledo in a previous cycle of drinking water source protection grants) continued to collect critical TSS and turbidity data on the Siletz River to help characterize water quality trends as they relate to storm events.

Oregon Watershed Enhancement Board

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

OWEB grants fund a variety of activities that local partners have identified as priorities in watershed assessments, action plans, or regional plans such as ESA Recovery Plans, Groundwater Management Areas, or TMDLs and Water Quality Basin Status and Action Plans. Restoration actions address watershed process and functions necessary to support natural processes that are indicative of healthy watersheds. This includes, but is not limited to improving water quality, water quantity, habitat complexity, flood plain interaction, vegetation structure, and species diversity. The work funded by OWEB addresses nonpoint source pollutants including thermal loading, sediment, bacteria, and nutrients. The state moneys dispersed by OWEB are a critical source of nonfederal matching funds for 319 grants. Through acquisition grants, vulnerable and ecologically valuable parcels of land are acquired by local governments and nonprofits. DEQ staff assist in the evaluation of grants and otherwise ensure that needs and priorities identified by DEQ's work are considered in the granting process. OWEB is a vital partner to DEQ in the reduction of nonpoint source pollution for human activities, past and present.

Accomplishments under the Oregon Plan

OWEB provides information about activities implemented under the Oregon Plan for Salmon and Watersheds (Oregon Plan) through OWEB and various partners, including DEQ. The 2013-2015 Biennial Report (<http://www.oregon.gov/OWEB/pages/index.aspx>) includes information about each region of the state, more detailed information about the activities and accomplishments by partners and online resources and tools.

Conservation Reserve Enhancement Program in Oregon

The Conservation Reserve Enhancement Program (CREP) is a cooperative venture between the State of Oregon and the U.S. Department of Agriculture Farm Service Agency (FSA), with support from the Natural Resources Conservation Service (NRCS), soil and water conservation districts, watershed councils, and other regional partnership organizations.

CREP restores, enhances, and maintains streamside areas along agricultural lands to benefit fish, wildlife, and water quality. Landowners receive annual rental payments and financial incentives to plant trees and shrubs in riparian areas, install fencing and livestock watering facilities, and implement other approved conservation measures. Oregon added 63 contracts in the Federal Fiscal Year (FFY) 2014 to 2015 to enroll 1,218.63 acres, bringing the cumulative total to 41,015.4 acres (<http://www.oregon.gov/OWEB/MONITOR/pages/index.aspx>).

OWEB funds and supports CREP technical assistance positions around the state. We currently fund and manage eleven CREP Technical Assistance grants, covering 22 counties in order to provide staffing, training, and outreach support for these technicians.

NPS Program Directions and Priorities in 2015

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. Rather than continuing with Basin Reports, DEQ is using basin-scale TMDL development, and associated WQMPs and Implementation Plans, to address needs for watershed- and basin-level planning.

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.

Priorities for the NPS Management Program are:

- 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 by Oregon Department of Agriculture (ODA) and local partners for more than a decade. During that time, implementation of conservation practices and restoration has occurred. However, implementation activities had been opportunistic and were difficult to show that progress was being made. In order to address the issue, ODA established Focus Areas and Strategic Implementation Areas to make investments in small geographic areas in an attempt to show measurable improvements are being made. Focus Areas are sub-watersheds chosen for intensive voluntary improvement efforts lead by SWCDs. Strategic Implementation Areas are sub-watersheds chosen for intensive surveying, education, and enforcement actions. In order to support ODA's efforts, DEQ's priorities for agriculture are the following.
 - Provide technical support to Support ODA in developing streamside vegetation guidelines.
 - Participate in biennial review process to assist ODA to identify and document implementation actions.
 - Provide water quality data analysis and interpretation during the biennial review process.

- Assist ODA to streamline and improve Biennial Reviews and Area Plans by identifying which components are better evaluated at a statewide (programmatic) level.
- Assist ODA in increasing the utility of Biennial Reviews and Area Plans for landowners.
- 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.
- Participate in EPA and NRCS directed effectiveness monitoring program “National Water Quality Initiative (NWQI).” In 2014, EPA awarded technical assistance grant to support to the development of monitoring plan for Fifteen mile DEQ and its partners. DEQ is committed to provide 319 funding to support effectiveness monitoring in Fifteen mile and Willow NWQI basins.
- 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.
 - Participate on rule writing committee for SSBT rules, to get the most beneficial rule language possible
 - Design management measures needed for adequate TMDL implementation and the process to utilize them
 - Assist in prioritization of ODF’s monitoring activities and evaluation of results
 - 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.
 - Work with ODF, ODA, EPA, National Marine Fisheries Service, OWEB, and the Governor’s Natural Resource Office to craft workable additional management measures for private forestlands for an approvable CNPCP.
 - 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
 - Continue interagency work with BLM and USFS through the established MOA’s; enhance annual reporting and data sharing/analysis.
- 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.
 - Implement post construction stormwater guidance where appropriate.
- 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 NPS Annual Report to track yearly progress of implementation of the approved NPS Management Program Plan.
- Source Water Protection: Identify where nonpoint sources of pollution are significant threats to drinking water sources and incorporate into NPS Program priorities. Continue to initiate nonpoint source reduction projects that reduce risks to public drinking water, and in many cases, also contribute to TMDL implementation.
 - Groundwater: Identify where nonpoint sources of pollution are impacting groundwater quality; incorporate into NPS Program priorities; and use 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 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;
- Designs and implements additional voluntary management measures for forests and agricultural lands in the coastal zone, with verification through implementation and effectiveness monitoring, to reduce nonpoint source pollution in Oregon's coastal zone;
- Administers federal CWA Section 319 Grant Program and other applicable grants to enable actions that achieve water quality goals;

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- 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;
- 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.

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 State intent to continue to plan, implement and prioritize actions to address NPS problems on a statewide basis.

Oregon's NPS Management Program 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 2015 in implementing a NPS Plan action:

Table 1. NPS Management Plan Actions, Priorities, Milestones 2015 to 2018 Activities

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
HIGHLIGHTS of NPS ACTIVITIES				
Implement NPS Management Program Plan	Implement the NPS Management Program Plan to achieve the NPS Program goals and priorities.	Various milestones (e.g. riparian restoration, changes to Ag Area Plans, changes to forest practices)	2014 to 2018	Occurring over time and Annual Activities Reported in NPS Annual Report
Develop and submit to EPA NPS Annual Report	The NPS Annual Report describes the progress in implementing the NPS Management Program Plan and achieving the NPS Program goals and objectives.	Annual Report on 2014 activities submitted and approved by EPA; 2015 Annual Report under development	2014 to 2018	Annual Report on 2015 activities to be submitted to EPA in September 2016
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	2015 Annual Report Describes 319 Funding (see table 8)
Priority Projects To Receive 319 Grant Funding For Pass Through Grants	Region and HQ staff identify NPS priorities 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	2015 list of work plans includes priority projects

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
319 Staff Training	Planning for a continuous grant administration training	Every other year	2015-2018	<p>Technical Assistance and Training was provided by request to DEQ staff through Business Affairs, DEQ 319 Coordinator, and the Process Improvement Team.</p> <p>Procedures documents and a related training on the 319 process, including drafting and administering 319 grants, is currently scheduled for November, 2016. This training is being developed with help from DEQ 319 Coordinator, Business Affairs, and the Process Improvement Team. This training will also be available via webinar by November 2017.</p>
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	Because of reduced funding 2015 Projects were funded on a high priority criteria
319 Grant Administration	Provide written guidance to DEQ staff and grant recipients for grant development, administration and invoicing	DEQ develops, training	2015	<p>Guidance was not completed due to staffing changes/shortages. DEQ's 319 Process Improvement Team (consisting of Regional and HQ staff) developed Procedures documents, which detail the process for drafting and administering 319 grant agreements, during 2015-2016. These documents are in the final review phase with a release date of November 2016. A training workshop, planned for November 2016, will accompany the release of these documents. In addition, a webinar for new employees is in the initial planning phase with an expected completion date of November, 2017.</p>
Training				See page 20, "Staff Training."
319 GRANT PROGRAM				
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

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
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	Data not compiled for this report due to staffing changes/shortages
NPS Pollutant Load Reduction Estimates	Collect information on annual nitrogen, phosphorus, and sedimentation-siltation NPS pollutant load reduction estimates for appropriate 319 funded projects.	Include information in DEQ NPS Annual Report	2014-2018	NPS Pollutant Load Reduction estimates included in this report; see Table 9
DEQ's NPS Program Website	DEQ's NPS Program Website updated as needed.	DEQ NPS Program website updated at least annually to reflect current RFP and NPS Annual Report and other documents as needed	2014-2018	Website updated with 2016 319 Pass Through Grant RFP
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, -, DEQ will utilize TMDLs, WQMPs, & Implementation Plans for this item
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	No Action, DEQ will utilize TMDLs, WQMPs, & Implementation Plans for this item
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	2015	Met with EPA R10 and EPA HQ to discuss documentation needed for TMDLs, WQMP, and TMDL IPs to be used as watershed based plans

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
Volunteer Monitoring	Volunteer Monitoring Watersheds Sample Plans are developed.	QAPPs and SAPs reviewed by DEQ- how many? Steve probably has a good idea.	2014-2018	Volunteer monitoring plans were reviewed by DEQ how many?
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; see Section 4, TMDL subsection
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	Study design and monitoring proposal template developed to ensure TMDL objectives and goals are documented and transparent
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 is being provided in the Mid-Coast, Willamette, and Rogue River Subbasins. Basin Coordinators conducted seven Technical Assistance Workshops during 2015-2016. Topics covered included: TMDL implementation tracking and reporting; TMDL 5 Year Review guidance; stormwater modeling, management, and treatment; including post-construction elements in TMDL Plan guidance; introduction to Western Oregon LID Manual; grant opportunities and SRF; Watershed Council water quality monitoring. Basin Coordinators will continue to provide a minimum of three TA workshops on an annual basis.
TMDL IMPLEMENTATION				

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
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	WR Willamette Basin Coordinators provided support to DMAs on an individual basis, or through TA workshops, to aide implementation of the following TMDLs: Willamette Basin (2006); Middle Willamette, Rickreall Creek; Molalla-Pudding (2008); Yamhill. See page 25, "Technical Assistance," and below for more information.
TMDL Implementation Plans	DEQ reviews TMDL Implementation Plan annual reports. DEQ also determines what percent (%) of DMAs submitted annual reports. DEQ may track via ACES.	DMAs Meet TMDL/WQMP responsibilities that are identified in their WQIPs.	2014-2018	<p>WR Willamette Basin Coordinators reviewed TMDL Annual Reports and/ or TMDL 5 Year Reviews for 79 DMAs during 2015-2016. Currently, about 84% of the DMAs in the Upper and Middle Willamette Basins are implementing their TMDL Implementation Plans and reporting on an annual basis. Our goal is to reach 100% TMDL implementation and annual reporting by the end of 2018.</p> <p>WR Willamette Basin Coordinators are using a relatively new tracking system, ACES. Basin Coordinators expect to have all Willamette DMAs entered into ACES by April, 2017.</p>
TMDL Implementation Plan	Develop a process for DEQ staff on how to conduct TMDL Implementation Plan review.	DMAs Meet TMDL/WQMP responsibilities	2015	In October, 2015 DEQ TMDL/NPS staff facilitated a state-wide TMDL training and workshop. During this workshop breakout groups met to assess and provide feedback on performance monitoring, which included recommendations for conducting TMDL Implementation Plan Review. The recommendations from this effort were summarized and distributed to TMDL staff by the Watershed Management Coordination Team.

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
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. This would also include measuring what percent (%) was completed on time and what % is delinquent, etc.	Methods created, staff trained, tracking done	2015-2016	Technical development work occurring but not ready to begin reporting
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	Technical work occurring but no reporting
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	Information in the annual report; see “Cross Program Efforts to Control Toxic Chemicals”
Public Water Systems (PWSs)	Continue developing and implementing contaminant-specific management strategies to reduce risks to public drinking water from contaminants such as pesticides, volatile organic compounds, metals, etc.	Reduce or protect PWSs from NPS pollution	2014-2018	Information in annual report from OHA/DEQ to EPA available at http://www.deq.state.or.us/wq/dwp/status.htm
AGRICULTURE				

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
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 ODA Agriculture Water Quality Program	2015-2016	Work is ongoing with ODA; Agreement that effective shade target must be achieved.
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 ODA Agriculture Water Quality Program	2015	<p>DEQ provided input as ODA developed assessment methodology developed at 6th field scale. ODA requested DEQ assist with more modeling studies but additional resources to support those studies are not available at this time.</p> <p>WR Willamette Basin Coordinators continue to reference DEQ's 2010 report titled, "Cost Estimate to Restore Riparian Forest Buffers and Improve Stream Habitat in the Willamette Basin, Oregon," to help guide riparian restoration and related shade targets. These data are shared with ODA during Ag Area Plan Reviews in an effort to help focus riparian efforts. ODA requested DEQ assist with more modeling studies but additional resources are not available at this time.</p>
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	<p>DEQ has developed a tool for analysis of WQ data for status and trends. The tool will be used by DEQ staff to communicate progress on achieving water quality standards when commenting and on ODA's area plans and rules.</p> <p>During 2015-2016 WR Willamette Basin Coordinators assessed and provided feedback to ODA on the Upper Willamette and Upper Siuslaw, and Middle Willamette Ag Area Plans.</p> <p>Basin Coordinators attended the Ag Area Plan LAC meetings (December 2015, April, 2016) and presented water quality data trends as well as an overview of how the Ag Area Plans fit in the broader world of TMDL.</p>

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
Update DEQ Guidance for Biennial Reviews	Collaborate with ODA for updating DEQ guidance for providing comment during ODA's Biennial review process to efficiently use staff time and ensure comments are incorporated as needed	DEQ provides substantive input during the Area Rule and Plan revision	2015-2017	Ongoing; in discussions internally and with ODA to make process simpler and more productive
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	Ongoing
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	Ongoing; DEQ has draft Water Quality Analysis Tool, is refining Biennial Review participation and data use, has helped ODA target monitoring. Ongoing WR Willamette Basin Coordinators continue to work with ODA to develop and include measureable objectives in Ag Area Plans. Specifically, during 2015-2016, Willamette Basin Coordinators worked with ODA in developing a methodologic that addresses nutrients in Southern Willamette Valley agricultural areas. This effort is expected to translate to on-the-ground implementation in early 2017 and includes data analysis to identify specific areas of concerns; direct farmer outreach; farmer technical assistance and BMP implementation.
FORESTRY				
Oregon Department of Forestry Forest Practices Act (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	Ongoing; ODF Monitoring Strategy updated; RipStream study results led to rule analysis

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
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 are attained in receiving waters.	2015	Ongoing; RipStream rule analysis led to rule revision concepts approved by Board of Forestry, rule language currently in development
ODF/DEQ MOA	Participate with ODF on revising the current MOA between ODF and DEQ.	Revision to the 1998 DEQ/ODF MOA	2017	No action

<p>TMDL and Stormwater</p>	<p>Write Low Impact Development Guidance Manual; Implement stormwater controls to reduce pollutants and moderate flows</p>	<p>Write TMDL and Stormwater Low Impact Development Guidance Manual; Stormwater controls in municipalities reduce pollutants and moderate flows MDLs lead to measureable reductions in NPS associated pollutants</p>	<p>Low Impact Development Guidance Manual drafted; DEQ 319 funds supported development of the WOLID manual template in 2014-2015. Outreach and training activities were conducted in 2016.</p> <p>WR Willamette Basin Coordinators continue to conduct outreach and provide technical assistance to DMAs as well as affected business sectors in regards to TMDL stormwater issues and goals. We reached at least 200 individuals in 2015-2016, which have direct or indirect interactions with stormwater pollutants addressed in TMDLs.</p> <p>Basin Coordinators presented to DMA staff, as well as contractors, utility and construction workers at the following venues during 2015-2016: Western Oregon LID Manual workshop in Albany (March 2015); Keizer Erosion and Sediment Control Summit (January, 2016); Northwest Environmental Business Council Annual Conference (June, 2016).</p> <p>In 2016 WR Willamette Basin Coordinators participated in the release of the Western Oregon Low Impact Development Manual, and conducted an introductory workshop on the draft Manual for Willamette DMAs in June 2015. This Manual was developed with support from the 319 grant program.</p> <p>Stormwater management and treatment and post-construction stormwater elements in TMDL Plans were addressed during the seven TA workshops conducted for Willamette DMAs in 2015-2016.</p> <p>Low Impact Development Guidance Manual drafted.</p>
<p>FEDERAL LANDS</p>			

GOALS	ACTION	MILESTONES	TIME FRAME	YEAR 2015 ACTIONS
	USFS and BLM develop plans (National Forest Plans, BLM Resource Management Plans (RMPs), Travel Management Plans) with review, comment, and advice from DEQ.	BLM Western Oregon RMPs are reviewed and approved by DEQ. Updates to other plans are reviewed and approved by DEQ.	2014-2018	BLM's Western Oregon RMPs approved by DEQ after review, comment, and revision. DEQ advised on BLM Western Oregon RMPs to ensure riparian protections will meet standards and LAs
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 in 2014. Monitoring & grazing BMPs are in process. New silvi culture BMPs included in Western Oregon RMPs. Monitoring results through AREMP, PACFISH, and INFISH.....
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. LAs addressed through riparian protection measures under the NWFP or RMPs
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	Changes to Western Oregon grazing allotments in new RMPs; working with BLM to improve tracking of implementation of grazing standards and guidelines

Prioritization of NPS Activities in 2015

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 2015:

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 2015 on agricultural, federal, state, and private forestry land use activities, and the Oregon Coastal Nonpoint Pollution Control Program (CNPCP).

Nonpoint Source Program

2015 accomplishments

- Distributed \$80,851 million in 319 grants to fund projects in Oregon's priority basins and groundwater management areas
- Updated Oregon's Nonpoint Source Management Program Plan
- Prepared an annual report of Nonpoint Source Program accomplishments
- Worked collaboratively with the Oregon Department of Agriculture, Oregon Department of Forestry, and other Designated Management Agencies to address nonpoint source issues associated with agriculture, forest, or urban land uses.
- Began process to resolve deficiencies in CNPCP.
- Supported ODF in getting new rule concepts approved by the Board of Forestry to reduce nonpoint source pollution on salmon, steelhead, and bull trout (SSBT) streams.
- Began efforts to quantify conservation effectiveness of riparian restoration and improve reporting of riparian condition and temperature and bacteria load reductions.

2016 expected results

- Distribute ~\$330,000 in 2016, 319 pass through grants to fund projects in Oregon's priority basins and groundwater management areas.
- Prepare an annual report of Nonpoint Source Program accomplishments.
- Track and report on administrative and environmental outcomes from water quality restoration and protection efforts.
- Continue to work with the Oregon Department of Agriculture, Oregon Department of Forestry, and other Designated Management Agencies to address nonpoint source issues associated with agriculture, forest, or urban land uses.
- Continue making progress on resolving deficiencies in CNPCP.
- Update BLM MOU; improve annual reporting from BLM and USFS.

- BLM Western Oregon RMPs completed and adequate to meet water quality standards and TMDL load allocations.
- Acquire and analyze water quality data from USFS and BLM, utilize for evaluation of management measure effectiveness.
- Make progress on refining Agricultural Area Plan Biennial Review process, better use of data for adaptive management, and performing programmatic evaluations of ODA's program.
- New forestry riparian rule for SSBT streams adopted and work on large wood recruitment/habitat begun.
- Support TMDL development and implementation where nonpoint sources are significant.
- Evaluate management measure effectiveness for preventing and reducing nonpoint source pollution.

4. NPS Activities and Accomplishments in 2015

Programmatic NPS Management and Administration Performance Partnership Agreement

A portion of DEQ's nonpoint source program activities are funded through the EPA and DEQ 2014-2016 Performance Partnership Agreement (PPA) NPS and 319-Funded Related Water Quality Component. The current PPA is for activities occurring from **July 1, 2014 to June 30, 2016**. This funding used in waters impaired by NPS pollution supports program management, administration, TMDL development and implementation, mainstream Columbia water quality management, and agency coordination.

These funds support **9.74 FTE** positions within DEQ that were involved in the following PPA NPS and 319-Funded Related Water Quality Component funded activities:

- Regional NPS Implementation & NPS TMDL Development & Implementation (4.84 FTE),
- Prorates and Management and Administrative Support (1.01 FTE),
- 319 Grant Administration and Provision of Technical Assistance with Applicants (1 FTE),
- DEQ Staff and Coordination with Other Funding Agencies (1.00 FTE), and
- NPS Policy Development, Collaboration and Provision of Technical Assistance with Stakeholders and other Local, State, and Federal Agencies (1.00 FTE).
- NPS TMDL Modeling (0.89 FTE)

The following **Table** is a compilation of nonpoint source pollution control related commitments from **elements 1, 2, 4, 7 and 8 of the 2015 to 2016 Performance Partnership Agreement (PPA) work plan**. Not all of the work described in Table 8 is funded by the 319 portion of the PPA.

Table 2: 2015 to 2016 Performance Partnership Agreement Nonpoint Source Pollution Control Commitments.

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 1: Water Quality Standards and Assessments</i>			
1.1	Conduct a rulemaking process to revise copper criteria and adopt 4 new pollutant criteria recommended by EPA.	New criteria recommended to the EQC for adoption and submitted to EPA.	Currently scheduled for adoption in January 2017
1.2	Conduct a review and prepare for rulemaking to revise Oregon’s temperature water quality standard. Determine how to address natural thermal regimes and variability for temperature.	Prepare to propose new criteria to the EQC for adoption. This process is delayed pending ongoing litigation on Oregon temperature TMDLs.	Ongoing
1.3	Address water quality standards-related action needs (e.g., variances, site-specific background pollutant criteria, UAAs and/or SSC) arising from implementation of revised human health criteria or the remaining effective portion of Oregon’s temperature standard.	. No requests for variances of UAAs/SSC have been requested.	As needed
1.4	Describe anti degradation implementation procedures that address the issues raised in EPA’s review of Oregon’s Antidegradation Implementation guidance document (IMD).	Initiating plan to address issues in EPA’s review of Oregon’s antidegradation policy.	3/31/2017

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 1: Water Quality Standards and Assessments</i>			
1.5	Identify and plan next set of standards work to be completed based on water quality program needs and stakeholder input (triennial review). Upon completion of this planning process, provide EPA with a list of possible additional water quality standards revisions that could be undertaken subject to resource availability and priorities.	Standards work plan that identifies needs and priorities. Proposed standards revisions, as time and resources allow	3/31/2017
1.6	DEQ will assist EPA in identifying relevant data elements and geo-referenced information to contribute to EPA's national data roll-ups and national measure target determinations. DEQ will assist EPA and EPA contractors in developing a list of potential candidates to meet national measures and in the development of appropriate success stories.	Oregon Integrated Report	Ongoing
1.7	DEQ will develop an effective and sustainable approach to producing complete and timely Integrated Reports. Such approach will need to identify and develop staffing resources and data infrastructure and evaluation processes and tools. DEQ's priority will be to develop GIS and automated data analysis tools and processes needed to determine impairment and streamline the assessment process.	A project plan that includes recommended tasks and resources to implement. Initial tasks are being implemented.	6/30/2016
1.8	DEQ will track the development and modifications to EPA's water quality framework (ATTAINS). DEQ will evaluate whether this system would meet Oregon's needs.	Tracking data entered into ATTAINS by EPA R10	Ongoing

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 1: Water Quality Standards and Assessments</i>			
1.9	<p>DEQ will review and prioritize needed updates to the IR assessment methodology.</p> <p>After an initial planning process, DEQ will identify which water quality standards assessment methodology updates and revisions could be undertaken this biennium, subject to resource availability and priorities.</p> <p>DEQ will consider whether methodology updates for biological criteria can be completed during this time period.</p>	<p>Updates/new protocols for Oregon Assessment Methodology for Integrated Report on Water Quality Status</p> <p>Id. of methodology updates to be completed this biennium.</p>	Ongoing

2015-2016 Performance Partnership Agreement			
NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 2: TMDLS</i>			
2.1	Develop TMDLs and WQMPs in accordance with 303(d) list schedule.	Issuance of TMDLs for the:	
		- Coquille Basin moved from 12/14 to	12/16-
		- MidCoast Basins moved from 12/15 to	12/17
		- Chetco Basin from 12/16 to	6/17
		- Sixes Basin from 6/16 to	6/17
		Begin Powder/Burnt Basins TMDL Development	3/18
		Upper Deschutes Basin TMDL Development	Ongoing
		Begin Coos TMDL development -6/15	12/17
		Issuance of revised TMDLs for the:	
		-Upper Klamath River and Lost River TMDLs (chlorophyll-a, ammonia toxicity, phosphorus, and pH -Western Hood Temperature TMDL	9/16
Evaluate and develop potential approaches for the remaining category 5 and 3 listings for the Willamette Basin	9/16 12/16		

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 2: TMDLS</i>			
2.2	Implement TMDL Wasteload Allocations in NPDES permits through collaboration with NPDES permit writers.	Pollutant Discharge Limits that will meet WLAs for each permitted discharge.	Ongoing
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.	<p>About 84% of 79 DMAs in WR Willamette Basin are successfully implementing TMDL Plans.</p> <p>Basin Coordinators continue to support DMA implementation activities by connecting DMAs with funding sources, such as SRF, 319 grants and private grant opportunities.</p> <p>In 2015-2016 Basin Coordinators facilitated seven TA workshops specific to stormwater management and post-construction TMDL Plan elements, and continue to work with DMAs to include all six minimum stormwater control measures in TMDL Plans.</p>

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 2: TMDLS</i>			
2.3			Selected projects/ programs in 2015-2016 that Willamette Basin Coordinators facilitated include, but are not limited to: Western Oregon LID Manual to assist small communities with LID planning and implementation; Assist Long Tom Watershed Council's Urban Waters Program to find funding for stormwater treatment facilities within Eugene and Springfield UGB; Lincoln County onsite (septic) records review to help focus outreach and assistance; South Santiam Watershed Council to analyze water quality data and trends; Lane Council of Governments to apply for funding for outreach in the SWV GWMA.
2.4	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	Completed Implementation plans that guide management practices, pollutant controls to meet load allocations in	See 2.3 Above

2015-2016 Performance Partnership Agreement			
NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 2: TMDLS</i>			
	agencies to leverage Farm Bill resources to implement priority best management practices in critical areas.	TMDLs. Facilitate projects that result in improvements in water quality.	
2.5	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.	Ongoing
2.6	Work with EPA to develop a plan that is consistent with EPA's 303(d) Vision by December 31, 2014. This plan may describe ODEQ's process, actions, or determinations on the following components of EPA's 303(d) Vision: prioritization, assessment, protection, alternatives, engagement, and integration.	Incorporate the components of EPA's 303(d) TMDL Vision into the TMDL Program planning documents.	Ongoing

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
Element 4: Groundwater Program			
4.2	Implement the Northern Malheur County Groundwater Management Area Action Plan by focusing on agricultural, residential, commercial, industrial, municipal and public water supply activities that will prevent and reduce nitrate contamination in groundwater.	<p><u>Coordination</u></p> <ul style="list-style-type: none"> - Meet with local stakeholders, Groundwater Management Committee, and local agencies to coordinate Action Plan activities. - Provide technical support. - Research BMPs and their effectiveness. <p><u>Education and Outreach</u></p> <ul style="list-style-type: none"> - Organize education and outreach efforts to increase awareness of groundwater vulnerability and BMP. <p><u>Monitoring and Data Analysis</u></p> <ul style="list-style-type: none"> - Monitor groundwater quality at 36 domestic and irrigation wells to evaluate impacts and effectiveness of Action Plan. - Complete groundwater nitrate trend analysis. if possible with staff changes/shortages.. - Evaluate success of BMP awareness and implementation. 	<p style="text-align: center;">Meet as needed; typically 1 meeting/ yr.</p> <p style="text-align: center;">Ongoing Ongoing</p> <p style="text-align: center;">Annually</p> <p style="text-align: center;">Quarterly</p> <p style="text-align: center;">Every four years</p>

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
Element 4: Groundwater Program			
4.3	Implement the Southern Willamette Valley Groundwater Management Area Action Plan by focusing on agricultural, residential, commercial, industrial, municipal and public water supply activities that will prevent and reduce nitrate contamination in groundwater.	<p><u>Coordination</u></p> <ul style="list-style-type: none"> - Meet with local stakeholders, Groundwater Management Committee, and local agencies to coordinate Action Plan activities. - Provide technical support. - Research BMPs and their effectiveness. <p><u>Education and Outreach</u></p> <ul style="list-style-type: none"> - Organize education and outreach efforts to increase awareness of groundwater vulnerability and BMPs, including 2 demonstration projects and 2 workshops. - Maintain GWMA website. <p><u>Monitoring and Data Analysis</u></p> <ul style="list-style-type: none"> - Monitor groundwater quality at 25 monitoring wells and 15 domestic wells to evaluate impacts and effectiveness of Action Plan. - Conduct nitrate well water screening events. - Evaluate success of BMP awareness and implementation. 	<p style="text-align: center;">3-4 SWV GWMA Committee meetings per year</p> <p style="text-align: center;">Ongoing Ongoing</p> <p style="text-align: center;">2 demonstration projects per biennium; 2 major outreach/education events per year</p> <p style="text-align: center;">Ongoing 2-4 times per year</p> <p style="text-align: center;">10 events per biennium</p> <p style="text-align: center;">As scheduled</p>

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 4: Groundwater Program</i>			
4.4	Each year, two geographic areas will be identified for groundwater monitoring activities beginning in 2014 with complete coverage of the state over a ten year cycle. Groundwater monitoring locations and timing will be prioritized to complement the information needed for developing the Basin Assessment reports DEQ uses for planning geographically-targeted water quality protection activities. Department, the Oregon Department of Agriculture	<u>Monitoring and Data Collection</u> - Monitoring at approximately 50 wells (combination of domestic wells and monitoring wells) in a geographically targeted area of Oregon outside of the GWMA's. - Nitrates and targeted analytes based on known or suspected risk factors.	Ongoing
4.5	Complete federal and state groundwater reporting requirements.	- Biennial Report to the legislature. - Groundwater component of 305(b) report.	Ongoing
4.6	Participate in EPA-sponsored annual groundwater meetings and conferences as workload and resources allow.	Meetings	Ongoing
<i>Element 7: Water Quality 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.	- 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.	Ongoing

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 4: Groundwater Program</i>			
7.4	Collect water quality data to support TMDL development on an annual schedule following a prioritization process.	TMDLs developed on schedule and supported by adequate data.	Ongoing
7.5	DEQ will collaborate with EPA, as resources allow, on EPA monitoring projects conducted in Oregon.	To be determined	As scheduled by EPA

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
<i>Element 8: Management of Nonpoint Sources of Pollution</i>			
	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.	May 2015 and May 2016
8.2	Prepare an annual report of NPS program accomplishments.	NPS Annual Report	March 2015 and August 2016
8.3	Determine with EPA available NPS Success Stories documenting either water quality progress or full restoration under Program Activity Measure (PAM).	NPS Success Stories written and posted on EPA's website.	Ongoing; No new stories this year
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.	February 2015, February 2016 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.	To be reviewed in 2017

2015-2016 Performance Partnership Agreement NPS and 319-Funded Related Water Quality Component			
Number	DEQ Commitment	Outputs	Target Date
8.6	Implement Agency Toxics Reduction Strategy.	Implement a toxics reduction strategy that incorporates air, land and water. This effort includes the Pesticide Stewardship Partnerships, Pesticide Collection Events, and other priority activities.	Ongoing PSP work, product stewardship rules, periodic pesticide collection events
8.7	Ag Area Plan & Rule biennial reviews and ODA/DEQ MOA implementation	Review and comment on ODA's agricultural area rules and plans during their biennial review process.	During 2015-2016 WR Willamette Basin Coordinators assessed and provided feedback to ODA on the Upper Willamette and Upper Siuslaw, and Middle Willamette Ag Area Plans. Basin Coordinators attended the Ag Area Plan LAC meetings (December 2015, April, 2016) and presented water quality data trends as well as an overview of how the Ag Area Plans fit in the broader world of TMDL.

Project Implementation

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

Total Maximum Daily Load Program

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

The Water Quality Management Plan (WQMP) is the framework for TMDL implementation that is issued by Oregon along with the TMDL (OAR 340-042-0040(1)). The WQMP lays out the strategies for TMDL implementation and serves as a multi-sector plan and provides the reasonable assurance that the TMDL will be implemented and allocations achieved.

In order to ensure TMDLs developed or implemented with § 319-funds have maximum utility for addressing NPS's of pollution and help to inform and facilitate the implementation of NPS projects, the state will include the following supplemental information to support the load allocations specified in the TMDL:

- An identification of total NPS existing loads and total NPS load reductions necessary to meet water quality standards, by source type (when data is available);
- A detailed identification of the causes and sources of NPS pollution by source type to be addressed in order to achieve the load reductions specified in the TMDL (e.g., acres of various row crops, number and size of animal feedlots, acres and density of residential areas, and when data is available); and
- An analysis of the NPS management measures by source type expected to be implemented to achieve the necessary load reductions, with the recognition that adaptive management may be necessary during implementation. EPA encourages state NPS staff to work with state TMDL staff during TMDL development. NPS staff can bring knowledge of BMP effectiveness and feasibility to ensure that NPS load reduction goals in the TMDL are achievable. Additionally, coordination between the two programs will provide a smoother transition from development of the TMDL to its implementation.

Because the submission of this additional information is a § 319 NPS program requirement, the information provided may be reviewed for adequacy by EPA regional NPS program staff as part of the grant oversight process. Such review is separate from the review by EPA regional staff pursuant to Clean Water Act § 303(d) and EPA's TMDL regulations at 40 CFR Part 130.7, for TMDLs submitted to EPA by the state.

Water Quality Standards

Activities in 2015-6 for water quality standards review and development were:

- [EQC granted a petition to conduct rulemaking to designate the North Fork Smith River as an Outstanding Resource Waters at their meeting on April 20, 2016](#)
- EPA approves bacteria standards and created designated use maps for approved [Oregon's revised ammonia standards for the protection of aquatic life](#)
- [DEQ is taking comment on freshwater copper standards revisions](#)

Oregon's 2012 Integrated Report and 303(d) list

DEQ submitted **Oregon's 2012 Integrated Report and 303(d)** list to EPA in November 2014. The report is available at DEQ's web page: <https://www.oregon.gov/deq/wq/Pages/2012-Integrated-Report.aspx> along with a summary of the results. EPA will review and either approve or disapprove the 2012 303(d) list as submitted. After EPA takes final action, Oregon's 2012 303(d) list will become effective for Clean Water Act purposes.

After EPA takes final action to approve, disapprove, or add more listings, Oregon's 2012 303(d) list will become effective for Clean Water Act purposes. Until then, the changes made to the 303(d) list with the 2012 Integrated Report are provisional, and the final 2010 303(d) list remains the effective list for Clean Water Act purposes.

Cross Program Efforts to Address Toxic Chemicals

DEQ Toxics Reduction Strategy

During 2015, DEQ continued work on the short-term Toxics Reduction Strategy priority actions established in 2012.

- Developing and implementing low toxicity state purchasing guidelines – DAS completed procurement guidelines with DEQ support, which were institutionalized as policy by the State's COO. DEQ continues to support DAS on procurement specifications for individual product categories. Advancing Green Chemistry in Oregon through collaborations with other agencies and other states – DEQ participates in the Interstate Chemicals Clearinghouse and Northwest Green Chemistry, which develop tools designed to advance safer chemicals alternatives assessments. In 2015, the directors of Oregon DEQ, the Washington Department of Ecology and the California Department of Toxics Substances Control signed a memorandum of understanding (MOU) to facilitate collaboration on green chemistry and safer products work. The 2013 and 2015 Oregon Legislatures allocated stable funding to ODA and DEQ to support on-going

implementation and enhancement of the Pesticide Stewardship Partnership Program. This has resulted in:

- The establishment of a new PSP in the Middle Rogue Watershed, as well as pilot monitoring activity in the South Umpqua, South Coast and Middle Deschutes Basins. Monitoring of bed sediment was also added to the PSP monitoring program.
- Water quality improvement trends were demonstrated in 2014-15 in multiple watersheds, including the reduction in the percentage of Malathion detections above the water quality standard from 83% in 2011 to 19% in 2015 in streams near The Dalles.
- Pesticide waste collection events throughout the state collected and properly disposed of over 200,000 pounds of unused and unwanted pesticides between 2014-2016 from growers and other commercial pesticide users.
- Pesticide stewardship technical assistance grants were allocated to 10 local and state entities since 2014 to foster the adoption of pesticide use practices that reduce water quality impacts. State funds were also used to purchase two pieces of equipment designed to train applicators in PSP watersheds on ways to increase sprayer efficiencies and reduce pesticide drift.

More information on DEQ's Toxics Reduction Strategy can be found here:

<http://www.oregon.gov/deq/Hazards-and-Cleanup/ToxicReduction/Pages/Reducing-Toxics.aspx>.

Pesticides Stewardship Partnerships (PSPs) and Water Quality Pesticide Management Team (WQPMT)

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. The inter-agency Water Quality Pesticide Team (WQPMT) is tasked with overseeing implementation of the PSP Program.

The WQPMT is composed of representatives from DEQ, ODA, the Oregon Health Authority (OHA), Oregon Department of Forestry (ODF), and the Oregon Watershed Enhancement Board (OWEB). Oregon State University (OSU) serves as a technical consultant to the WQPMT. 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. In 2014-2015, the WQPMT assessed multiple watersheds for the expansion of the PSP program, and selected the Middle Rogue as the next project area. This Team also prioritized areas of the state for conducting pesticide waste collections, and evaluated and selected applications submitted for pesticide stewardship technical assistance grant funds. All of these tasks were related to the enhancement and expansion of the PSP program facilitated by the new legislatively allocated funding. More information on the PSP program can be found at: <https://www.oregon.gov/deq/wq/programs/Pages/Pesticide.aspx>

Information on the WQPMT can be found at:

<http://www.oregon.gov/ODA/programs/Pesticides/Water/Pages/AboutWaterPesticides.aspx>

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 for all public water systems; refer to DEQ's drinking water website for more information:
<https://www.oregon.gov/deq/wq/programs/Pages/DWP.aspx>

DEQ Drinking Water Protection staff, in cooperation with OHA's Drinking Water Program, began updating Source Water Assessments, beginning with the coastal Public Water Systems (PWSs). Updated Source Water Assessments help PWSs to understand natural and anthropogenic hazards and risk in their Drinking Water Source Areas. A draft surface water resource guide for PWSs was written.

Drinking Water Revolving Loan Fund

In Oregon, the Drinking Water Revolving Loan Fund (DWRLF) is administered by OHA who works cooperatively with DEQ on source water protection efforts. Money from the DWRLF is used to fund:

- Source Water Protection Grants for source water protection activities, monitoring, and planning in Drinking Water Source Areas (DWSAs) . In 2015, a total of eight DWRLF projects were recommended for funding with funding awards totaling \$137,900. See section 3.0 for additional detail;
- 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.

These will help reduce nonpoint source pollution from nutrients, bacteria, sediment, petroleum products, organic carbon, and metals swill help understand sources of pesticides and other pollutants that threaten safe drinking water.

Drinking Water Providers Partnership

In 2015, DEQ began collaborating with the USDA Forest Service, BLM, EPA Oregon Ops, and Geos Institute to develop concepts for watershed restoration and improvement projects within municipal watersheds. The agencies consolidated funding and applied for additional grants to create a source for providing grants to protect the health of watersheds which communities depend upon for drinking water while also benefiting aquatic and riparian ecosystems, including the native fish that inhabit them. A total of 12 projects were funded and work will begin in 2016. Funded projects include riparian and floodplain restoration, large wood placement, culvert replacement, weed control, road inventory/reconstruction/decommissioning, sediment delivery reduction and cattle exclusion in watersheds in the Mid-Coast, South Coast, Umpqua, Rogue, Powder, and Willamette basins.

In 2015, DEQ worked directly with multiple public water systems to encourage protection strategies on a watershed scale basis. This includes coordinating with surface water providers in the Rogue River, Willamette, Umpqua, Siletz, and Clackamas subbasins. DEQ is also expanding on previous projects to help PWSs cost-effectively address similar risks. For example, work completed by the Clackamas River Water Providers using DWSRF funds address septic system risks is now being used in the source area for River Grove Water District's groundwater supply and will soon be used in the Molalla watershed. Numerous communities and citizens in the coastal watersheds have been vocal in expressing concerns over the past year with their surface water sources for drinking water that may be related to land use and other human activities. DEQ staff provided technical assistance to public water systems in the North Coast as part of this larger effort, including addressing issues surrounding gravel quarries within their source area, pesticide spraying, and forest harvests on private lands. In 2015, DEQ and OHA initiated a project to prepare updated source water assessments that include new mapping of natural/anthropogenic features and information on susceptibility; links to government and non-profit organizations that may be able to assist; and information for how to improve collaboration with upstream partners. Updated source water assessments will be completed for community water systems along the coast first as they experience unique issues due to their geographic setting, climatic and geological vulnerabilities, and seasonal tourist demands.

In addition to technical assistance provided by staff and nonpoint source reduction projects funded through the Drinking Water Revolving Loan Fund, the following are 319 funded projects address nonpoint source pollution to public drinking water sources:

South Umpqua Subbasin: In 2015, Douglas SWCD completed work in the Olalla-Looking glass watershed upstream of the intake for Winston-Dillard Water District. The South Umpqua River serves as a drinking water source for a number of public water systems, serving over 21,000 residents year-round. Contaminants of concern that are associated with nonpoint source pollution in the watershed include bacteria, nutrients, toxins from harmful algae blooms, and turbidity. Sources include grazing animals, manure management practices, bank erosion, fertilizer applications, stormwater runoff and poorly functioning septic systems. Work included landowner outreach and education and riparian restoration on three sites in the watershed, along with water quality monitoring by PUR upstream and downstream of two project sites prior to implementation.

Rice Creek Watershed in South Umpqua Subbasin: In 2015, Partnership for Umpqua Rivers PUR completed a riparian enhancement project addressing nonpoint source contamination associated with stormwater runoff, bank erosion, and grazing animals on a 1.1 mile stretch of Rice Creek, a tributary to the South Umpqua River. Work included installation of two hard crossings for livestock. The project is a key component of associated work scheduled for completion by the end of 2016 including fencing, off-channel livestock watering, and riparian plantings.

Siletz Watershed: In 2015, Lincoln SWCD continued to work on previously identified high priority sites for BMP implementation on agricultural lands in the Siletz Watershed. The ongoing work addresses bank erosion, riparian degradation, and sediment delivery issues in the watershed above the drinking water intakes for the Cities of Newport, Toledo, and Siletz.

Jackson County groundwater: In 2015, Jackson SWCD completed an outreach/education and technical assistance project to increase awareness about nitrate contamination risks to private and public wells, and to promote the implementation of BMPs to reduce risks.

Partners in the Clackamas River sub-basin implemented regional strategies in the Clackamas watershed reducing nonpoint source pollution attributed to septic systems, pesticide use, pharmaceuticals, potential spills, hazardous chemical use, algal blooms, and other sources. See the Clackamas River Water Providers Annual Report at <http://www.clackamasproviders.org/watershed-programs/> for more information on risk reduction programs.

Groundwater Management Areas

Groundwater Management Areas (GWMAs) 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 GWMAs 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.

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).

EPA and NOAA determined that Oregon had not submitted a fully approvable Coastal Nonpoint Program under the Coastal Zone Act Reauthorization Amendments (CZARA). The Program was not fully approvable because of gaps in Oregon's program related to private forestry to meet or maintain water quality standards and protect beneficial uses. The state of Oregon is working with EPA and NOAA to resolve these gaps. Specific gaps identified by EPA and NOAA were:

- Additional riparian protections for small and medium sized fish-bearing streams and non-fish-bearing streams,
- Sediment from legacy roads and old roads,
- Sediment from landslide prone areas,
- Aerial application of herbicides on non-fish bearing streams.

DEQ, ODF, EPA, and the Governor's Natural Resource Office are working cooperatively to identify management measures that should meet water quality standards and TMDL load allocations and reduce nonpoint source pollution from private forestlands. While additional protections on SSBT streams will be regulatory, voluntary measures are being considered for the remaining issues. These voluntary measures

will be examined through implementation and effectiveness monitoring and must have a regulatory backstop should voluntary means prove insufficient.

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. In addition, increase 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.
- Biomonitoring – Collecting data to identify watersheds where aquatic life is impaired and begin to identify chemical and physical indicators that are related to biological impairments.

Progress of 319 Grant Funded Projects

2015 319 NPS Pass Through Grant Projects

DEQ 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. This is typically an annual solicitation during the months of October through.

The 319 Nonpoint Source Pass Through Grant funds target prioritized basins for specific NPS pollutants to effectively improve water quality that were used to fund a total of 9 projects in Eastern Region, Headquarters, Northwest Region, and Western Region (Table 8). Priorities were identified by DEQ NPS and TMDL staff. The four general focus areas used to develop DEQ project priorities were:

- TMDL Implementation.
- 303(d) listings.
- Ground Water Management Areas (GWMAs).
- Drinking Water Source Areas.

Table 3. Oregon 319 2015 Project List by Region and Type.

REGION/ PROJECT #	TYPE	Title	Recipient	Summary	Budget /Match	Source of Match
NWR/ W15600	Restoration	Backyard Planting Program 2015	TEP	Continued stakeholders effort to extend riparian restoration sites	\$9,454 / \$6,303	OWEB
NWR/ W15601	Restoration	NNWC Restoration	Nestucca- Neskowin Watersheds Council	Continued riparian restoration, by maintaining past restorations sites and adding additional sites	\$9,454 / \$6,303	OWEB, Whole Watershed Restoration Initiative, Northwest Oregon Restoration Partnership, Tillamook County Public Works, volunteers.
NWR/ W15602	Effectiveness Monitoring	UNWC Restoration	Upper Nehalem Watershed Council	Temperature and turbidity monitoring to support regional monitoring plan development	\$4,000 / \$2,567	OWEB
ER/ W15603	Best Management Practice	Salmon Safe Certification in Peas/Wheat Agronomic Crop Rotation (partial funding)	OSU Extension - Umatilla	Establishing a program for producing wheat and green peas using less and softer pesticides and improved BMPs	\$22,907 / \$15,271	OSU staff volunteer hours and in- kind hours
WR/ W15604	Restoration	North Fork Coquille Watershed Riparian Restoration and Knotweed Project	Coquille Watershed Association	Proposes to address water quality issues in the North Fork Coquille River by working with landowners to improve riparian conditions. Primarily through planting, fencing, and noxious weed removal, such knotweed.	\$9,600 / \$6,400	Coos, SWCD, Weedbaord, ODFW
WR/ W15605	Effectiveness Monitoring	Wise Pre- Project Effectiveness Monitoring	Rogue River Watershed Council	Rogue, Bear, Little Butte -Install flow and water quality measurement monitoring stations and begin collection of data prior to	\$13,307 / \$8,871	Jackson Watermaster, RVCOG, RRWC

REGION/ PROJECT #	TYPE	Title	Recipient	Summary	Budget /Match	Source of Match
				irrigation system infrastructure upgrades so that the flow and water quality benefits can be demonstrated.		
HQ / W15606	Best Management Practice	PSP	various	WQ sampling to support the PSP. Conduct outreach	\$5,000 / \$3,333	State
HQ / W15607	Effectiveness Monitoring	TMDL implementation status and trends		Evaluation of TMDL implementation status / trend information	\$2,127 / \$1,418	PSU
HQ / W15608	Restoration	Willamette Riparian re- vegetation	BEF	cont. of a riparian re-veg program. Along streams in priority watersheds of the Willamette Basin.	\$5,000 / \$3,333	OWEB
Total Budget					\$80,848 / \$53,799	

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 **one 319 funded project**. Load reduction estimates were included in the EPA database GRTS (Grants Reporting and Tracking System).

Table 9 has the total 2015 load reduction estimate by pollutant for six 2015 319 funded projects. These were projects where it was appropriate to estimate load reductions.

Table 4. 2015 Report of Estimated NPS Load Reductions of 319 Funded Projects, as Reported in GRTS

#	PROJ. TITLE	\$\$ year	BDGT	CONTRACT WITH	END DATE	N, lbs/yr	P, lbs/yr	SED, T/yr	BOD, lbs/yr
W13700	Milton-Freewater Levee Setback Smith R. Channel	2011	\$96,000	Walla Walla Basin Watershed Council	31-Dec-2015	21,044	5,918	3,518	50,526
W12648	Backyard Planting Program Year 10	2011	\$53,115	Tillamook Estuaries Partnership	30-Sep-2015	5,859	1,836	1,368	13,237
W12650	Tillamook SWCD 2012 Stream Enhancement & Rest.	2011	\$35,925	Tillamook County SWCD	30-Jun-2015	2,501	742	454	2,911
W13705	Nestucca Riparian Restoration	2012	\$45,000	Nestucca Neskowin Watershed Council	30-Sep-2015	3,792	1,376	1,064	20,584
W13709	Upper Nehalem Riparian Restoration	2012	\$45,000	Upper Nehalem Watershed Council	30-Sep-2015	1,829	524	387	4,605
W12655	Mid-Coast BMP Implementation Project	2011	\$45,420	Lincoln SWCD	30-Jun-2015	20,748		11,264	

Note: The estimates reported in this table were part of the annual report to EPA for Load Reduction Estimates for the year 2015.

5. Success Stories and Environmental Improvement

WQ-10 and SP-12 Projects

This **Section 319 Nonpoint Source Success Stories** Web site features stories about primarily nonpoint source-impaired waterbodies where restoration efforts have led to documented water quality improvements. **Waterbodies are separated into three categories of stories**, depending on the type of water quality improvement achieved:

- [Stories about partially or fully restored waterbodies](#)
- [Stories that show progress toward achieving water quality goals](#)
- [Stories about ecological restoration](#)

DEQ must prepare these annual reports in order to receive 319 dollars from EPA. And EPA needs these Success Stories because Congress wants to know why the 319 dollars are needed and how successful they are being used.

All previous Oregon's Watershed Measures & Waterbody Restoration Stories “Success Stories” are developed by DEQ staff with assistance from EPA’s contractor Tetra Tech. It takes a lot of time from DEQ staff to gather the information to put the story together, as well as reviewing the information for accuracy. Although these stories are required by EPA, DEQ staff have found benefits in developing these stories including using the stories to publicize success and further their outreach goals.

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

Table 5. 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)	South Umpqua – Rice Creek
		Kilchis River 4/22/2013 (1)	
OREGON TOTAL	1	30	3

There are 2 success stories added to this year's annual report as follows:

1. The **Kilchis River**, Stakeholders Implement Practices to Reduce Bacteria Levels. The Kilchis River was added to the State's 303(d) list in 1998 for exceeding bacteria water quality standards for recreational use. The Tillamook Bay TMDL was subsequently completed in 2001. Since that time DEQ has been working with local land owners and partners such as the Tillamook SWCD, Tillamook Estuaries Partnership (TEP), ODA, and Tillamook Bay Watershed Council to implement various water quality improvement projects. The projects include riparian restoration, manure management structures, off-channel watering stations, and livestock exclusion fencing many of which were funded through DEQ's 319 Grant program. Long-term E. coli bacteria monitoring performed by TEP, with the help of local volunteers, has shown that as of 2009 the Kilchis River has meet the recreational use standard for E. coli bacteria.
2. The **Tillamook River**, Stakeholders Implement Practices to Reduce Bacteria. The Tillamook River was also added to the State's 303(d) list in 1998 for exceeding bacteria water quality standards for recreational use. The 2001 Tillamook Bay TMDL also covered the Tillamook River. The Tillamook River has the largest agricultural lands per watershed area in the Tillamook Bay Watershed. Similarly to the Kilchis River, DEQ has been working with local land owners, primarily agricultural, and partners such as the Tillamook SWCD, Tillamook Estuaries Partnership (TEP), ODA, and Tillamook Bay Watershed Council, as well as the Tillamook County Creamery Association, to implement various water quality improvement projects. These projects also focused on similar BMPs as the Kilchis and include riparian restoration, manure management structures, off-channel watering stations, and livestock exclusion fencing and were also funded through DEQ's 319 Grant program. Long-term E. coli bacteria monitoring performed by TEP, with the help of local volunteers, has shown that while the Tillamook River is not meeting recreational use standard for E. coli bacteria every long-term monitoring location is showing a statistically significant decreasing trend in E. coli bacteria concentrations.

APPENDIX 1. Progress of NPS 319 Funded Projects (Grant Performance Report)

Table 6. 319 Oregon Open Projects Status, 2011-2015

PROJ_#	PROJ_TITLE	Funding Yr	BDGT	CONTRACT_WITH	Balance	PROJ_MGR	End Yr
W11637	Wildhorse Creek Flow Monitoring	2011	\$12,256	Umatilla Basin Watershed Foundation	\$3,943.69	Dombrowski, Tonya	2016
W11639	OR Lake Watch Volunteer Monitoring	2011	\$9,939	Portland State University	\$9,939.00	Williams, Karen	2016
W11640	NORP Native Plant Propagation	2011	\$7,062	Tillamook Estuaries Partnership	\$7,062.00	Purcell, Jennifer	2016
W12641	Milton-Freewater Levee Setback	2012	\$96,000	Walla Walla Basin Watershed Council	\$61,733.52	Dombrowski, Tonya	2016
W12666	2015 Wasco County Pesticide Stewardship Partnership	2012	\$3,000	Wasco County Soil & Water	\$479.90	Crown, Julia	2016
W12668	Nitrogen Sources in a Tidally Restricted Estuary	2012	\$3,177	Curry Soil and Water Conservation District	\$447.88	Blake, Pam	2016
W12669	Tillamook SWCD 2015 Riparian Veg	2012	\$6,000	TBD	\$6,000.00	Purcell, Jennifer	2016
W12670	Nestucca - Neskowin WSC 2015 Riparian Restoration	2012	\$10,000	Nestucca Neskowin Watersheds	\$10,000.00	Purcell, Jennifer	2016
W12671	TEP Backyard Planting 2015/16	2012	\$5,000	Tillamook Estuaries Partnership	\$5,000.00	Purcell, Jennifer	2016
W12672	NW Oregon Restoration Partnership	2012	\$7,750	Tillamook Estuaries Partnership (TEP)	\$7,750.00	Purcell, Jennifer	2016
W12673	NPS#22: MOBILE WTR RESOURCE LEARNING LAB	2012	\$2,756	Umatilla Basin Watershed Foundation/Council (UBWC)	\$2,756.00	Dombrowski, Tonya	2016

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PROJ_#	PROJ_TITLE	Funding Yr	BDGT	CONTRACT_WITH	Balance	PROJ_MGR	End Yr
W13700	Walla Walla River Levee Setback	2013	\$45,000	Walla Walla Basin Watershed Council	\$364.04	Dombrowski, Tonya	2017
W13701	Klamath Tracking & Accounting Program (KTAP)	2013	\$56,000	Klamath Basin Rangeland Trust	\$35,445.39	Dombrowski, Tonya	2017
W13703	NMC WQ Improvement Outreach and BMP Demo Project	2013	\$49,950	Malheur SWCD	\$40,638.66	Dombrowski, Tonya	2017
W13704	BLM Nutrient Monitoring in the Powder Basin	2013	\$22,000	Powder Basin Watershed Council	\$11,429.22	Dombrowski, Tonya	2017
W13707	Mollala River Corridor campsite restoration	2013	\$15,000	Molalla River Watch	\$1,500.00	Williams, Karen	2017
W13708	BYPP 2013-17	2013	\$40,000	Tillamook Estuaries Partnership	\$26,948.58	Purcell, Jennifer	2017
W13713	South Umpqua WQ Improvement Project	2013	\$41,616	Partnership for Umpqua Rivers	\$22,392.89	Tugaw, Heather	2017
W13716	Siuslaw Riparian Restoration and WQ Monitoring	2013	\$15,524	Siuslaw Watershed Council	\$1,850.61	Waltz, David	2017
W13717	Big Elk Road Assessment	2013	\$15,524	Lincoln Soil & Water Conservation	\$4,040.98	Waltz, David	2017
W13718	GW Protection Ed. To Promote Public	2013	\$47,766	Oregon State University	\$4,776.60	Eldridge, Audrey	2017
W13723	Coos WA Biocriteria	2013	\$31,048	Coos Watershed Association	\$5,358.50	Blake, Pam	2017

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PROJ_#	PROJ_TITLE	Funding Yr	BDGT	CONTRACT_WITH	Balance	PROJ_MGR	End Yr
W13726	Upper Klamath Basin NPS Education	2013	\$12,742	Klamath Watershed Partnership	\$12,742.00	Dombroski, Tonya	2017
W14750	Mid. Deschutes River & Tumalo Crk. Temp. Monitoring	2014	\$18,340	Uppper Deschutes Watershed	\$13,339.66	Dombrowski, Tonya	2018
W14751	The Lower Mill Creek Riparian Restoration Project	2014	\$36,250	Wasco County Soil & Water Conservation	\$3,625.00	Dombrowski, Tonya	2018
W14752	Tri-County Yellow Flag Iris containment & Ctrl Project	2014	\$8,000	Tri-County Cooperative Weed Management Area	\$8,000.00	Dombrowski, Tonya	2018
W14753	PBWC WQ Monitoring Ext. and Expansion	2014	\$76,213	TBD	\$69,885.86	Dombrowski, Tonya	2018
W14754	FLIR Camera	2014	\$4,907	TBD	\$0.00	Dombrowski, Tonya	2018
W14755	Owyhee River Improvement Project Phase 4	2014	\$48,877	TBD	\$45,696.25	Dombrowski, Tonya	2018
W14756	Getting Word Out Malheur Basin	2014	\$27,120	Malheur Watershed Council	\$18,740.00	Dombrowski, Tonya	2018
W14757	Nestucca Riparian Restoration	2014	\$60,000	Nestucca Neskowin Watersheds	\$28,006.17	Purcell, Jennifer	2018
W14758	Milton Creek Riparian Enhancement	2014	\$24,836	Scapoose Bay Watershed Council	\$19,746.55	Drake, Doug	2018
W14759	Upper Nehalem Rip Rest & WQ Monitoring Project	2014	\$50,000	Upper Nehalem Watershed Council	\$29,152.77	Purcell, Jennifer	2018

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PROJ_#	PROJ_TITLE	Funding Yr	BDGT	CONTRACT_WITH	Balance	PROJ_MGR	End Yr
W14760	Clackamas R WSC WQ Monitoring & Improvement Project	2014	\$18,480	Clackamas River Basin Council	\$6,780.51	Williams, Karen	2018
W14761	TWC Catchment Scorecard & WQ	2014	\$24,919	The Wetlands Conservancy	\$6,864.58	Matzke, Andrea	2018
W14762	Columbia Co. WS Scale WQ Monitoring	2014	\$14,060	TBD	\$14,060.00	Purcell, Jennifer	2018
W14763	2015 Children's Clean Water Festival	2014	\$4,958	Tillamook Estuaries Partnership	\$0.18	Purcell, Jennifer	2018
W14764	NORP Plant Purchase	2014	\$10,162	Tillamook Estuaries Partnership	\$10,162.00	Purcell, Jennifer	2018
W14765	TMDL Implementation Status & Trend Study	2014	\$14,403	PSU	\$9,001.00	Sobota, Daniel	2018
W14766	Will. Model WS Reveget & Stds of Prac guide 2015	2014	\$40,000	TBD	\$0.00	Mitchie, Ryan	2018
W14767	Walla Walla PSP Pass through 2015	2014	\$20,389	Walla Walla Basin Watershed Council	\$11,806.52	Crown, Julia	2018
W14769	NWQI	2014	\$25,000	TBD	\$25,000.00	Kishida, Koto	2018
W14770	Curry Cumulative Rest. For Aquatic Health	2014	\$25,780	Curry Soil and Water Conservation District	\$24,569.89	Meyers, Bill	2018
W14772	Expanding the ben: Riparian Reveg. Luckiamute Basin	2014	\$31,387	TBD	\$29,745.42	Woolverton, Priscilla	2018

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PROJ_#	PROJ_TITLE	Funding Yr	BDGT	CONTRACT_WITH	Balance	PROJ_MGR	End Yr
W14773	Coos Biocriteria Ass & Evaluation, Phase 2	2014	\$10,462	Coos Watershed Association	\$10,462.00	Woolverton, Priscilla	2018
W14774	10-mile WS WQ & Biological Monitoring	2014	\$11,736	City of Lakeside	\$3,644.14	Woolverton, Priscilla	2018
W14775	Gold Hill WQ Improvement - RARE	2014	\$12,000	City of Gold Hill	\$0.00	Woolverton, Priscilla	2018
W14776	Prioritizing Areas of Action Plan Imp.	2014	\$31,387	Lane Council of Governments	\$28,643.01	Woolverton, Priscilla	2018
W14777	Riparian Rest. & Continuous WQ Monitoring	2014	\$12,770	Siuslaw Watershed Council	\$11,535.13	Waltz, David	2018
W14778	Siletz, Yaquina, Beaver Cr Subbasin BMP Projects	2014	\$18,616	Lincoln Soil and Water Conservation	\$17,499.37	Waltz, David	2018
W14779	South Umpqua Rip. Enhancement and PSP	2014	\$43,050	Partnership for the Umpqua Rivers	\$5,971.52	Fern, Jacqueline	2018
W14780	Western Oregon LID Implementation Guidance	2014	\$15,000	Oregon Env. Council	\$1,500.00	Meyers, Bill	2018
W14781	2016 Children's Clean Water Festival	2014	\$1,292	Tillamook Estuaries Partnership	\$1,292.00	Purcell, Jennifer	2018
W15600	Backyard Planting Program 2015	2015	\$9,454	TBD	\$9,454.00	Purcell, Jennifer	2019
W15601	NNWC Continued RIP Restoration	2015	\$9,454	TBD	\$9,454.00	Purcell, Jennifer	2019

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PROJ_#	PROJ_TITLE	Funding Yr	BDGT	CONTRACT_WITH	Balance	PROJ_MGR	End Yr
W15602	UNWC Regional Monitor Plan Supp	2015	\$4,000	TBD	\$4,000.00	Purcell, Jennifer	2019
W15603	Salmon Safe Certification	2015	\$22,907	Oregon State University	\$22,907.00	Dombrowski, Tonya	2019
W15604	North Fork Coquille Restor/Knotweed	2015	\$9,600	TBD	\$9,600.00	Purcell, Jennifer	2019
W15605	Wise Pre-project Effectiveness	2015	\$13,307	TBD	\$13,307.00	Tugaw, Heather	2019
W15606	PSP Support-Sampling and Outreach	2015	\$5,000	TBD	\$5,000.00	Crown, Julia	2019
W15607	TMDL Implement Status and Trend	2015	\$2,129	TBD	\$2,129.00	Sobota, Daniel	2019
W15608	Willamette Riparian Revegetation	2015	\$5,000	TBD	\$5,000.00	Michie, Ryan	2019