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# 2005 NPS PROGRAM ANNUAL REPORT

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AS REQUIRED BY THE CLEAN WATER ACT



SUBMITTED TO EPA REGION X



State of Oregon  
Department of  
Environmental  
Quality

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BY OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

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MARCH 2006

PORTLAND, OR

## Oregon 2005 NPS Program Annual Report

This annual report is written in response to section 319 (h)(8) and (11) of the Clean Water Act (33 USC 1329). The report documents the activities and accomplishments of the State of Oregon in general and the Oregon Department of Environmental Quality (ODEQ) in particular regarding the administration of the State's Nonpoint Source (NPS) pollution water program.

The report covers an update on the NPS activities implemented by the state during the period January 2005 – December 2005. Like many other years in the Oregon program, this period was rewarding and productive. As described below, Oregon is clearly making significant progress toward meeting the substantial challenges presented by NPS water pollution.

The State program continues to find innovative, cooperative, community-based, methods to improve water quality and enhance watersheds. Some of the highlights from this year include the following accomplishments:

- ✓ Distributed of over \$1.9 million dollars in nonpoint source grants and another \$22 million in OWEB watershed restoration money to projects all across the State.
- ✓ Received approval on two TMDL basin studies, for about 1,060 river miles of sub-basin scale, total maximum daily loads (TMDLs) addressing nonpoint source pollution concerns.
- ✓ Strengthened partnerships at all levels of government as well as cooperative ventures with private individuals and organizations.
- ✓ Conducted innovative and effective outreach and education events to inform Oregon citizens about nonpoint source concerns, and to motivate better stewardship of our waters, including the field trips, presentation to varied groups, high school student's watershed summit (Student Watershed Research Project, SWRP), children watershed festival in Tillamook.
- ✓ Revised Oregon's Water Quality Standards including beneficial use designations and temperature criteria.

### Anticipated Activities

- ✓ Re-evaluate the quality of Oregon's waters and update the "impaired water" list.
- ✓ Continued implementation of memorandum of agreements with United States Forest Service and Bureau of Land Management.
- ✓ Continue to develop TMDLs addressing NPS of water pollution.
- ✓ Offer urban NPS technical assistance to address stormwater phase II concerns in communities.
- ✓ Complete initial issuance of Agricultural Water Quality Management Plans throughout the state.
- ✓ Continue work on evaluation of sufficiency of Forest Practices Act rules.

- ✓ Continue to integrate the state revolving fund loan program into nonpoint source activities,
- ✓ Continue to distribute grants and loans to projects that will advance the mission and effectiveness of the nonpoint source program, including identifying high priority projects and implementation of TMDL plans.
- ✓ Identify additional ways of improving our partnership with various State, Tribal, Federal, and Local government agencies, as well as watershed councils, soil and water conservation districts and private individuals and organizations.

We continue to work with our partner agencies to discuss the application of the anti-degradation component of our water quality standards to Nonpoint sources of pollution.

#### Conclusion

Oregon is tackling the hard issues and meeting the significant challenges posed by the Nonpoint source water pollution. We are well on our way toward greater accountability for our investments in Oregon's watersheds; partnering to advance restoration efforts; and greater citizen understanding of the health of their local watershed.

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## Oregon's Water Resources

With its nearly 97,000 square miles, Oregon ranks as the tenth largest state in the nation. The Oregon landscape is as diverse as it is beautiful. Surface water resources are a major feature of Oregon. The State has over 100,000 miles of rivers, 6,200 lakes, nine major estuaries, and over 360 miles of coastline.

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, in 1996 the State adopted the Oregon Plan for Salmon and Watersheds to focus work on watershed restoration and recovery of endangered salmonid populations.

At present, responsibility is divided between several State agencies that work in an active and effective partnership to protect State waters. The State water quality program can be divided into the ten interdependent program elements listed below. The 10 basic water quality program components are as follows (not listed in order of priority):

- 1. Water quality standards that establish, for each watershed basin, beneficial uses for the waterbody as well as maximum levels of pollutants that can be discharged without adversely effecting the designated use.*
- 2. Permits for point sources, including storm water, discharging pollutants to State waters.*
- 3. Water quality [401] certifications of certain nonpoint source pollutant discharges including hydroelectric projects, and dredge and fill activities.*
- 4. Nonpoint source water quality management plans specifically developed for forestry, agriculture and urban activities.*
- 5. Biennial assessment of State waters to identify those waters that are not meeting water quality standards*
- 6. Pretreatment, Sewage Sludge Management and On-Site System programs to ensure that water quality is not compromised by other land- based activities.*
- 7. Development of total maximum daily loads (TMDLs) to correct those waters that are not meeting water quality standards.*
- 8. Cost-share grants and low interest loan programs to address municipal sewage treatment and disposal needs, and activities to reduce or eliminate nonpoint sources of pollution.*
- 9. Education and outreach activities to continuously remind the public about the importance of understanding NPS pollution and its impact in water quality.*
- 10. Facility or activity-specific compliance assessment, a pilot NPS effectiveness monitoring effort, technical assistance and enforcement as warranted to ensure State water quality requirements are met.*

## II. Oregon's Nonpoint Source Program

Nonpoint source pollution refers to pollutants that reach State waters by non-discreet means (primarily runoff during rain events, or percolation of polluted water to groundwater). Nonpoint sources are often linked with land use activities through which the runoff passes.

Nonpoint sources also include atmospheric deposition and pollutants in groundwater or soils that migrate or travel to surface waters. Nonpoint sources continue to be a leading cause of significant water quality impacts across the State and the nation as a whole.

DEQ first began to address nonpoint source issues in October 1976. A comprehensive survey of nonpoint source pollution was first undertaken in 1978 and in 1988 and more recently in 2000.

Oregon first received EPA approval of its nonpoint source program in 1989. NOAA and EPA conditionally approved the State's Coastal Nonpoint Program under section 6217 of the Coastal Zone Management Act in 1998. The base program was updated and re-approved in 2000.

In Oregon, the most prevalent nonpoint source pollutants are temperature, sediment, bacteria and nutrients. These pollutants are most effectively controlling through the use of performance-based standards and best management practices (BMPs). BMPs offer a range of both efficient and cost effective solutions to water quality problems.

Oregon's nonpoint source program primarily focuses on 4 land use sectors: *agriculture, forestry, urban storm water and hydromodification.*

Oregon and the Federal government continue to make a significant investment in addressing nonpoint sources of pollution as well as watershed restoration.

Oregon's strategy for improving State waters is to approach the problem holistically. The State has been divided into 21 watershed basins and 91 sub-basins.

The State's permitting assessment and TMDL work has been aligned and prioritized according to these sub-basins.

Another major component of the State strategy is to involve as many partners and leverage as many resources and technical perspectives as possible.

Oregon has relied on longstanding partnerships to address these various activities and sources.

As noted above, many of the State's Departments, Boards and Commissions are now actively involved in addressing nonpoint source and watershed concerns. They include but are not limited to the following:

- ✓ *Department of Environmental Quality [www.deq.state.or.us](http://www.deq.state.or.us)*
- ✓ *Department of Agriculture <http://egov.oregon.gov/ODA>*
- ✓ *Department of Forestry [www.odf.state.or.us](http://www.odf.state.or.us)*

- ✓ *Oregon Watershed Enhancement Board* [www.oweb.state.or.us](http://www.oweb.state.or.us)
- ✓ *Department of Fish and Wildlife* [www.dfw.state.or.us](http://www.dfw.state.or.us)
- ✓ *Department of Land, Conservation and Development* [www.lcd.state.or.us](http://www.lcd.state.or.us)
- ✓ *Department of Economic & Community Development* <http://econ.oregon.gov>
- ✓ *Department of Transportation* [www.odot.state.or.us](http://www.odot.state.or.us), and many others.

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

### **III. Nonpoint Source Activities and Accomplishments in 2005**

**NPS Program Plan** – During 2005, we completed a review of the NPS program plan which has prioritized our work efforts over the next 2 years. The review is a result of regional meetings planned, and identified where the program's successes, challenges, and needs were. A group of regional and HQ staff took this information and created the programs priorities. In short, agriculture has become the #1 program priority. This review of priorities will be turned into a implementation plan during 2006.

## **A. TEMPERATURE, TOXICS AND BIO-CRITERIA PARAMETERS IN WATER QUALITY CRITERIA: REVIEW OF STANDARDS**

Every three years, Oregon is required to review and revise its water quality standards, and submit any new or revised standard to EPA for review and approval.

The Oregon water quality standards, including the narrative and numeric criteria, are set out in Chapter 340, Division 41 of the Oregon Administrative Rules. A significant number of Oregon water quality criteria are currently being reevaluated. These include a comprehensive review of the toxic pollutant criteria, 273 criteria (for 136 pollutants) set out in Table 20 of the rule.

We expect to complete this update by early 2004.

In addition, since October 1999, DEQ has been participating in a review of the water quality temperature criteria with EPA, the States of Idaho and Washington, the U.S. Fish & Wildlife Service, the National Marine Fisheries Services, the Columbia River Intertribal Fish Commission, and the Nez Perce.

In April 2003, EPA released draft guidance containing recommendations to States and Tribes for developing and implementing temperature criteria throughout the Pacific Northwest. Through DEQ's review work of the temperature criteria the rules were adopted in December 2003 and sent to EPA for approval. For reference the related documents, including tables can be found under "WATER QUALITY STANDARDS and BENEFICIAL USES – Division 41 at <http://www.deq.state.or.us/wq/wqrules/wqrules.htm>

DEQ has also been actively working on a update Turbidity criteria.

The biocriteria are benchmarks of DEQ expectations regarding the number and diversity of aquatic life in Oregon waterways. Once in place, these biocriteria numbers will be used as another tool to evaluate the health of the State's rivers and streams.

For more information on these efforts, please contact Debra Sturdevant, at DEQ, at (503) 229-6691.



## **B. NONPOINT SOURCE POLLUTION TAX CREDITS**

In 1999, the Legislature authorized a tax credit for nonpoint sources of pollution. This authorization required Department rulemaking before the tax credit program was effective. This rulemaking effort was completed in January 2001 and expenses incurred for nonpoint source controls are now, for the first time in Oregon, eligible for tax credits.

The rules allow a 50% credit for nonpoint source control expenses approved or "certified" by the Department. See Oregon Administrative Rules OAR [340-16-0005-0080] for a description of the process to follow to obtain a pollution control tax credit.

The Nonpoint Source Pollution Tax Credit is intended to cover expenditures for "on-the-ground" management practices and improvements. It is not intended to cover education, outreach or monitoring costs.

To be eligible, the applicant must:

- ✓ *Be an Oregon taxpayer;*
- ✓ *Make a qualifying investment;*
- ✓ *Be the owner and operator of the facility or property in question.*
- ✓ *The nonpoint source pollution expense must be for the purchase of land, or a structure, building, installation, excavation, machinery, equipment or devices.*
- ✓ *Be documented.*

Expenses that do not qualify for the tax credit include

- ✓ *Septic tanks or other facilities for human waste;*
- ✓ *Asbestos abatement; or any investment used for cleanup of emergency spills or unauthorized releases;*
- ✓ *Other insignificant nonpoint source control measures*

Items that do qualify include

- ✓ *Vehicles*
- ✓ *Landscaping and fencing,*
- ✓ *Reconstruction of parking lots, and roadways so long as they have a pollution-control purpose.*

In addition, the expense must meet at least one of the following circumstances:

- ✓ *Be incurred as a result of a U.S. Environmental Protection Agency or Oregon Department of Environmental Quality requirement, including TMDLs and groundwater management area action plans; or*
- ✓ *Exclusively function to control, prevent or reduce nonpoint source pollution and be effective in controlling, reducing or preventing water pollution; and be authorized by one or more of the partner agencies listed in the State NPS Control Program Plan.*

The partners and activities include expenses incurred pursuant to the following:

- ✓ *Agricultural water quality management plans administered by the Oregon Department of Agriculture.*
- ✓ *Forest management practices administered by the Oregon Department of Forestry.*
- ✓ *Estuary plans.*
- ✓ *Match expenses for a Nonpoint Source or watershed grant agreement by either DEQ or OWEB.*
- ✓ *Expenses verified by research conducted by Oregon State University's agricultural experiment station, U.S. Department of Agriculture's research service, or the Oregon Department of Agriculture.*

An applicant has two years after the completion of construction to file an application with the Department.

Discussion with potential tax credit users has been on the increase. We expect to identify pilot projects and provide a funding-implementation plan including the Tax Credit option to implement management practices addressing NPS pollution concerns.

### **C. STATE REVOLVING FUND – OREGON 319(H) GRANTS INCREASED COOPERATION**

The Oregon DEQ is committed to identify water quality project as it seeks to orient the NPS programs toward watersheds as management units and to begin comprehensive control projects in targeted watersheds. In an effort to reinforce this commitment to address NPS water quality needs the SRF Loan Program went through review to include NPS criteria in the selection of projects. In summary the new rules went into effect in June 2003, which allows to have a more direct focus on environmental benefit, and less emphasis on compliance. The new SRF program looks like this:

#### General Description

The proposed rules establish three new loans within the program. These new loans include the Emergency Loan and Urgent Repair Loan, both developed to address emergency community needs. A Local Revolving Loan has been included in the program to clearly allow pass-through loans to local communities with the intention the funds will be used to make local loans to citizens within that jurisdiction. Additionally, a “sponsorship option” was made available with construction loans that allows a water restoration project to be funded in conjunction with a traditional wastewater project at a reduced interest rate.

We expect to identify an increasing number of projects that traditionally have been funded in part by 319(h) funds. The new rules allow public agencies to establish their loan program to implement NPS projects such as onsite repair, AFO maintenance projects, “new” BMP implementation projects.

#### D. TMDLS ADDRESSING NONPOINT SOURCE POLLUTION (NEED TO UPDATE)

According to the most recent (1998) assessment of the State's water quality, 13,687 miles of State waters are not currently achieving water quality standards. Over 12,100 of these miles are impaired due to temperature. Under Federal law, a total maximum daily load (TMDL) analysis and allocation must be undertaken for these water bodies. Given the numbers of impaired waters, DEQ has elected to perform its TMDL work on a subbasin basis, rather than water segment by segment. Table I presents completed TMDLs.

The majority of the State's TMDL work involves nonpoint sources of pollution. DEQ estimates that 75 percent (68) of the 91 watershed sub-basins are primarily affected by forestry, agriculture, urban development and other nonpoint sources. Nonpoint sources of pollution also play a significant role in the remaining 23 sub-basin where impairment is attributed to both point and NPS.

On February 1, 2000, DEQ and EPA entered into an MOA formalizing Oregon's commitment to develop TMDLs for its impaired water bodies. The MOA describes the basic elements of a TMDL, opportunities for public involvement and establishes sequence for TMDL development in all 91 sub-basins. The agreement calls for all currently known impaired waters to have completed TMDLs by June 30, 2007. Please refer to Table I for a detailed list of the subbasins in which a TMDL has been approved, under development, or submitted for review, and Table II for a full schedule of TMDLs.

Since the agreement, seven subbasin TMDLs were completed and sent to EPA for review:

- ✓ *Little River [temperature, sediment and pH]; á*
- ✓ *Lower Snake Creek temperature, sedimentation, pH, nutrients, aquatic weeds/algae and dissolved oxygen];*
- ✓ *Upper Grande Ronde [temperature, sedimentation, pH, nutrients, aquatic weeds/algae and dissolved oxygen];*
- ✓ *Umatilla [Flow, bacteria, temperature, and sediment]*
- ✓ *Tualatin [phosphorus and ammonia in the main stem of the river, and bacteria, dissolved oxygen, temperature and chlorophyll a in the tributaries]; and*
- ✓ *Upper South Fork of the Coquille [temperature]*
- ✓ *Tillamook [bacteria and temperature]*

These sub-basin TMDLs cover 274 separate water segments listed as impaired on the State's 303(d) list.

Columbia River Nonpoint Source

*Total Dissolved Gas TMDL*

In November 2002, EPA approved the total dissolved gas TMDL for the lower Columbia River (mouth to RM 309). This TMDL established load allocations for the four lower river hydropower projects operated by the U.S. Army Corps of Engineers (Bonneville, The Dalles, John Day, McNary). Load allocations were based on excess pressure of dissolved gases introduced by spilling water over the spillways of dams.

Accompanying the TMDL is a multi-year implementation plan. Phase one of the plan, spanning 2002-2010, envisages total dissolved gas levels above load allocations due to fish passage requirements for ESA listed threatened and endangered species. During this time evaluations for remedial actions to improve total dissolved gas levels and biological assessments of the effects of total dissolved gas exposure will be conducted. In the second phase, spanning 2010-2018, measures identified in phase one will be implemented. Data gathered in the research studies will be used to support a site specific criteria for total dissolved gas should that be warranted.

### *Columbia River Federal Navigation Improvement Project*

On June 23, 2003, DEQ released a conditioned water quality (Section 401) certification for the above project. The project entails deepening the existing 40 foot federal navigation channel to 43 feet from River Mile 3 to River Mile 105. The water quality certification contained a number of conditions relating to turbidity, dissolved oxygen, toxics and timing. The certification also established an adaptive management framework which will enable the States to maintain oversight as the project proceeds. Various studies are called for, and the adaptive management framework will provide for operational decisions to be made in light of data collected. The certification required that a realtime website be established to report data to the public to ensure that there is transparency in conducting the project.

### North Coast TMDL.

On August 20, EPA approved this TMDL which was issued by DEQ on June 30. This TMDL address listings for temperature, bacteria, and biological criteria. Including listings from the recently approved 2002 303(d) list, there are approximately 393 miles of river listed for elevated temperatures, 10 miles of river and bay waters were listed for bacteria, 3 miles of river were listed for E. coli bacteria, and 4 miles were listed for biological criteria for a total of 408 miles and 56 individual listings. This represents another collaborative effort by NWR, Lab, and Headquarters staff.

### Willamette River TMDL.

The Willamette River TMDL Council met in July to receive staff updates/presentations on the temperature and mercury TMDLs. Discussions focused on the mainstem temperature model and source characterization results for mercury. The latest modeling results show that point sources are not affecting the water temperature of the mainstem Willamette.

In January 2001, DEQ signed a Memorandum of Agreement with the EPA and the State of Idaho regarding the development of the TMDLs for Total Dissolved Gas and Temperature. This agreement lays out how EPA, Idaho, Washington and Oregon will coordinate efforts on this TMDL

**Table. 1 Oregon TMDLs Approved by USEPA - May 2000 through September 2003**

Waterbody (Basin/TMDL Segments)	Water Quality Concern Addressed	TMDL Parameters	USEPA Approval Date	Completed TMDL Segments (cumulative)
Upper Grande Ronde Sub-basin (Grande	Temperature, pH, Algae, DO,	Temperature, Sediment, Nitrogen, Phosphorous	05/03/2000	73

Ronde/73)	Sedimentation			
Upper South Fork Coquille River (South Coast/4)	Temperature	Temperature	03/23/2001	77
Umatilla River Basin (Umatilla/45)	Temperature, pH, Sedimentation, Turbidity, Aquatic Weeds, Algae	Temperature, pH, Sedimentation, Turbidity, Aquatic Weeds, Algae	05/09/2001	122
Tillamook (North Coast/40)	Temperature, Bacteria	Temperature, Bacteria	07/31/2001	162
Tualatin (Willamette/101)	Temperature, Bacteria, DO, Algae, pH	Temperature, Bacteria, DO, Settleable Volatile Solids, Ammonia, Chlorophyll a, pH, Phosphorus	08/07/2001	263
Little River (North Umpqua/16)	Temperature, pH, Sedimentation	Temperature, pH, Sediment	01/29/2002	279
Western Hood (Hood/7)	Temperature	Temperature	01/30/2002	286
Nestucca Bay (North Coast/6)	Temperature, Bacteria, Sediment	Temperature, Bacteria, Sediment	05/13/2002	292
Lower Sucker Creek Watershed (Illinois/3)	Temperature	Temperature	05/30/2002	295
Lobster Creek Watershed (Rogue/3)	Temperature	Temperature	06/13/2002	298
Upper Klamath Lake Drainage (Klamath/32)	Temperature, pH, DO, Chlorophyll a	Temperature, pH, DO, Chlorophyll a	08/07/2002	330
Lower Columbia River (Lower Columbia/7)	Total Dissolved Gas	Total Dissolved Gas	11/18/2002	337
North Coast Subbasins (North Coast/56)	Temperature, Bacteria	Temperature, Bacteria	08/20/2003	393

*Table 2. Full Schedule for TMDL Development (numbers represent impaired stream segments)*

Year	TMDL's Approved by EPA	# TMDL's Submitted to EPA	# TMDL's Required Yet To Be Submitted to EPA	TMDL's Required to be Approved by EPA, Cumulative Totals.
1991	8	-		
1992	20	-		
1993	16	-		
1994	13	-		
1995	-	-		
1996	5	-		
1997	-	-		
1998	10	-		
1999	-	1	207	
2000	74	74	160	
2001	177	23	124	
2002			310	
2003			324	

Year	TMDL's Approved by EPA	# TMDL's Submitted to EPA	# TMDL's Required Yet To Be Submitted to EPA	TMDL's Required to be Approved by EPA, Cumulative Totals.
2004			311	310
2005			143	
2006			134	
2007			112	
2008				982
2010				1153

## **E. MEMORANDUM OF AGREEMENT BETWEEN BUREAU OF LAND MANAGEMENT AND DEQ.**

During the years 2002 - 2003, DEQ initiated discussion with the United States Bureau of Land Management (BLM) to update existing water quality joint efforts (Memorandum of Agreement, a.k.a. MOA). The agreement was completed during 2003 and is aimed at strengthening working relations and establishing closer coordination, particularly regarding TMDL development and implementation.

The MOAs focus on protection, restoration and maintenance of physical, chemical and biological conditions of water that support beneficial uses (defined in Oregon Administrative Rules, Division 41) by working in a proactive and collaborative manner. The purpose of the MOA is to:

- ✓ *Collaborate on priorities, strategies and funding using a watershed approach to protect and restore water quality on Bureau of Land Management (BLM) lands.*
- ✓ *Foster and enhance communication, coordination and working relationships between DEQ and the BLM.*
- ✓ *Identify BLM and State of Oregon policy, programs, and practices that ensure attainment of Federal and State water quality laws and regulations that collectively support the assignment of the BLM as a Designated Management Agency (DMA) for meeting Clean Water Act (CWA) requirements on NFS/BLM lands.*
- ✓ *Recognize, clarify and support DEQ and BLM roles and responsibilities specific to water quality.*
- ✓ *Establish a process for joint review of ongoing watershed protection, restoration, and compliance activities, including a plan for short and long-term work.*
- ✓ *Create an annual evaluation process to improve methods and approaches for meeting water quality goals and standards.*

The MOA create a framework in which the DEQ and BLM can effectively cooperate on programs and projects of mutual concern to protect, restore and maintain water quality Statewide. The MOA also minimize duplication of efforts.



## **F. FOREST CONVERSION MOU**

The Oregon Department of Forestry (ODF), Oregon Department of Agriculture (ODA), Oregon Division of State Lands (DSL), Oregon Department of Land Conservation and Development (DLCD), Oregon Department of Fish and Wildlife (ODFW), Oregon Parks and Recreation Department (OPRD), and Oregon Department of Environmental Quality (DEQ) have common interests and responsibilities in protecting waters of the state and other natural resources during the conversion of forestland to non-forest uses. The Memorandum of Understanding, drafted during 2003 calls for closely coordinate efforts, insure agency coordination and minimize duplication, and to work towards common goals in regulating the conversion process.

The purpose of this agreement is to clarify the roles and responsibilities of the state agencies involved during the conversion of forestland to other nonforest uses on publicly or privately owned lands, to ensure that state water quality standards and other resources are protected throughout the process, and to ensure a smooth transition in jurisdiction between the agencies.

Signing of the MOU is expected to occur in early 2004.

## **G. SUFFICIENCY ANALYSIS**

The Department of Forestry and Department of Environmental Quality agreed through an April 1998 Memorandum of Understanding to jointly evaluate the effectiveness of the Forest Practices Act to protect water quality. The analysis focused on temperature, sedimentation, aquatic habitat modification, and bio-criteria. The Sufficiency Analysis: A Statewide Evaluation of Forest Practices Act Effectiveness in Protecting Water Quality was signed by the State Forester and the Director of DEQ in October, 2002.

There were 12 recommendations in the sufficiency analysis, and the purpose of those recommendations was to ensure that the FPA goals and objectives, and thus water quality standards were being met. ODF developed series of rule changes concepts based on the sufficiency analysis as well as the recommendations made by the IMST (Independent Multidisciplinary Science Team) FPAC (Forest Practices Advisory Committee) and ERFAC. (Eastside Riparian Functions Advisory Committee)

*Recommendations addressing issues associated with roads and land slides have resulted in FPA rule changes in 2002.*

Recommendations addressing large wood and temperature and fish passage issues are currently being proposed to and considered by the Board of Forestry. Due to lack of specific scientific data required by ORS 527.714, some recommendations are being proposed as voluntary measures, whereas recommendations with sufficient research evidence are proposed to be rule changes. The adoption date for the voluntary measures and the proposed rule changes is not certain. ODF is scheduled to propose all of its recommendations to the Board of Forestry by April 04, however, ODF will need to conduct ORS 527.714 analysis before the board makes its final decision.

## H. COASTAL ZONE NPS PROGRAM

Oregon's Coastal Nonpoint Pollution Control Program (CNPCP) is being developed in compliance with requirements adopted as part of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The new requirements were designed to restore and protect coastal waters from nonpoint source pollution and require coastal states to implement a set of *management measures* based on guidance published by EPA. The guidance contains 56 management measures separated into six groups. There are measures for the following areas: agricultural activities, forestry activities, urban areas, marinas, hydromodification activities, and protecting wetlands.

In July of 1995, Oregon completed its Program Submittal for the CNPCP. Oregon's CNPCP Submittal described existing programs and proposed work tasks that would meet the terms of CZARA and EPA's guidance and work to improve water quality in Oregon's coastal management area. In January 1998, after reviewing the state's program submittal, EPA and NOAA returned their findings to the state that granted a conditional approval to Oregon's program. The findings included 13 conditions of approval.

To better respond to the conditions of approval, Department of Environmental Quality (DEQ) and Department of Land Conservation and Development (DLCD) divided them into 40 discrete tasks. Of these tasks, approximately 25% have been addressed to the satisfaction of EPA and NOAA, although documentation of these resolutions has not yet been formalized. With the help of partner agencies, (such as the Oregon Department of Transportation (ODOT) and the Department of Agriculture (ODA)), who participated in development of the original submittal, the remaining 75% were prioritized within the framework of the state's larger water quality and salmon recovery efforts.

By January 2003 all CNPCP management measures program submittals were sent to NOAA and EPA for review and program plan approval. Specifically the following tasks were completed:

- ✓ NOAA and EPA Region 10 in an interim decision memo dated January 10, 2003 have preliminarily approved Measures for Marinas and Recreational Boating.
- ✓ NOAA and EPA Region 10 in an interim decision memo dated January 10, 2003 have preliminarily approved the following Measures for Hydromodification: Dams,
- ✓ NOAA and EPA Region 10 in an interim decision memo dated January 10, 2003 have preliminarily approved Measures for Critical Coastal Areas.
- ✓ NOAA and EPA Region 10 in an interim decision memo dated January 10, 2003 have preliminarily approved Measures for Technical Assistance.
- ✓ Developed an internal draft outline of (Urban) TMDL Implementation Plan Guidance for Communities Identified as Designated Management Agencies.
- ✓ Obtained federal funding (through EPA's Section 319 and NOAA) for DEQ and DLCD's CNPCP Coordinator positions.

- ✓ Developed educational, presentation materials, and a technical assistance program for local governments in the CNPCP to facilitate the adoption of local development codes protective of water quality and aquatic habitat as recommended in the DLCD/DEQ Water Quality Model Code and Guidebook and the development and implementation of Urban and Rural Areas TMDL Implementation Plans.
- ✓ Began implementing remaining management measures prioritized as commitments under The Oregon Plan.
- ✓ Continued to prepare CNPCP yearly progress reports to NOAA and EPA on meeting program requirements and implementation of CNPCP Management Measures.

Implementation of CNPCP Management Measures is occurring through Urban and Rural Areas TMDL Implementation Plans being developed as required by the TMDL process, the agricultural water quality plans (SB1010 Rules) and the State Forest Practices Act.

## I. NONPOINT SOURCE GRANTS

There are two primary programs that provide funding for various nonpoint source pollution and watershed enhancement projects in Oregon. One is administered by DEQ, and the other is administered by OWEB. A third program is administered by the Department of Agriculture (Fertilizer Tax Fund Program), which supports research and demonstration of BMP as it pertains to groundwater quality protection.

### DEQ 319 Nonpoint Source Grants

Section 319 funds are competitively awarded to projects consistent with the Revised Oregon Nonpoint Source (NPS) Control Program Plan (2000). This plan is available for downloading or viewing on DEQ's web site: <http://www.deq.state.or.us/wq/nonpoint/NPSPlan.htm>

The criteria for evaluation 319 proposals is in constant evolution. Due in part to the progress of the TMDL development/implementation work needs and other priority water quality work, such as groundwater management areas. We are noticing an improvement on the proposals being submitted in terms of linking restoration work over time and with each other, adapting to the the same trend of adapting to fit needs.

Specifically, 319 funds are intended for projects targeting NPS issues in priority watersheds or waterbodies and groundwater protection areas. Refer to Tables 4-9 in this document for detailed information on DEQ's priority water quality concerns and the geographic locations being targeted. As background, refer to the list of stream segments that do not meet water quality standards. These can be found on the DEQ's Water Quality Division's web page: <http://www.deq.state.or.us/wq/303dlist/303dpage.htm>.

The awarding of 319 funds will be weighed toward supporting projects that build organizational capacity, implement restoration activities, monitor water quality in support of Total Maximum Daily Load (TMDL) development or implementation, or measure progress towards achieving TMDL allocations. While Section 319 funds are not intended for research, these funds can be used to evaluate or assess the effectiveness of agricultural, forestry and urban best management practices (BMPs) which address water quality concerns, or other nonpoint source management programs. In 2003, DEQ revised the criteria for evaluating and prioritized 319 grant proposals for funding. The revised criteria is as follows:

- ✓ Projects addressing the Total Maximum Daily Loads priorities listed in any of the subbasins listed
- ✓ Significant publicly owned lakes currently listed in the Priority streams document (303(d) list);
- ✓ Drinking water supplies from surface reservoirs and river intakes;
- ✓ Groundwater protection projects addressing contamination;
- ✓ Ongoing agricultural and urban NPS projects making significant progress in addressing Nonpoint problems and can demonstrate a need to extend or expand the scope of the project;
- ✓ Other water bodies (surface or groundwater) that are publicly owned and locally important;
- ✓ Public water supplies that can demonstrate a need for protection or improvement.
- ✓ Control of non-agricultural NPS pollution (such as urban stormwater, construction site erosion, etc.);
- ✓ Demonstration of innovative or alternative NPS control strategies or practices being part of an overall watershed project and used to promote greater implementation of best management practices;
- ✓ Information/education of public or targeted groups on NPS pollution issues in a priority basin;
- ✓ Promoting increased use of BMPs in a watershed;

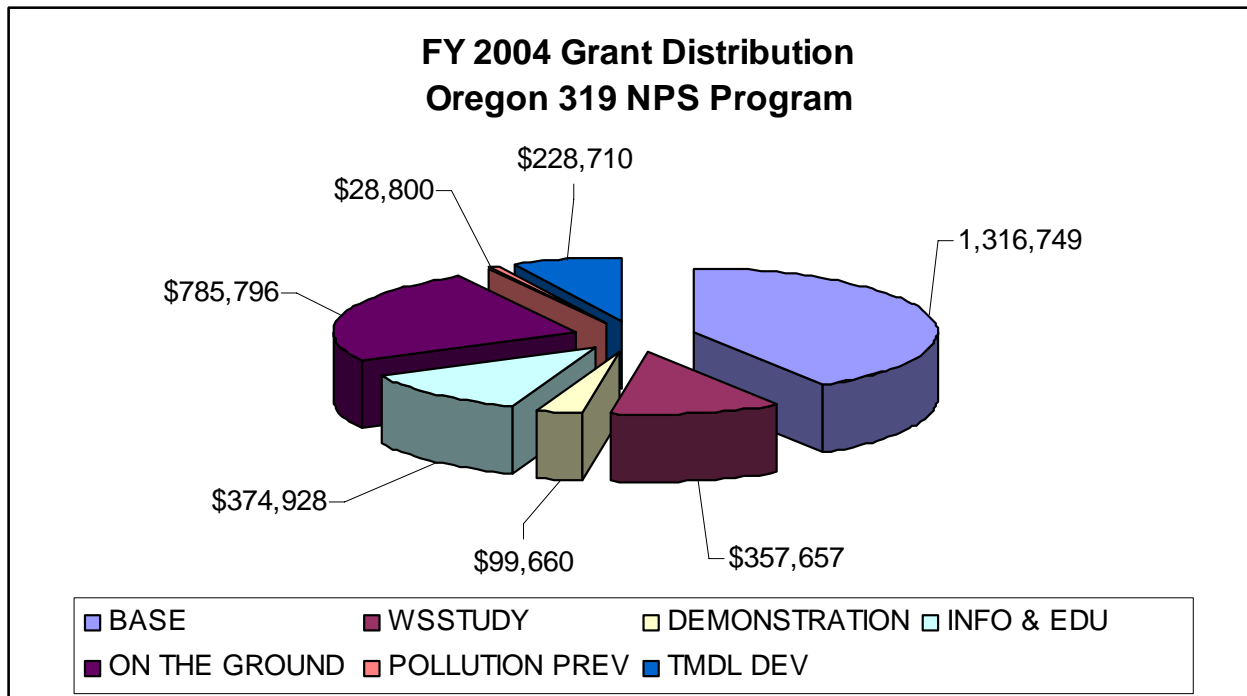
During 2003, DEQ requested proposals to address NPS priorities. There were about 65 requests for funding, of which about 32 projects were prioritized to fit the Oregon 319 funding allocation. The projects are summarized as follows:

Summary tables for the FY 2004 319 projects

**TABLE 3. LIST OF 319 NPS ON THE GROUND PROJECT PROPOSALS SUBMITTED to EPA for FUNDING (FY 2004).**

<b>EPA # OR- 319</b>	<b>Name</b>	<b>What kind?</b>	<b>Who will implement it?</b>	<b>Where?</b>	<b>How much?</b>
01-04	Fieldwork/Tech Admin Support	Base	DEQ	Statewide	<b>\$1,316,749</b>
32-04	Bacteria source fingerprinting study	WS Study	Rogue Valley COG	ROGUE	<b>\$19,900</b>
46-04	Long Tom WS Council Phase II Watershed Monitoring	WS Study	Long Tom WSC	UP WILLAMETTE	<b>\$59,000</b>
49-04	Siuslaw Estuarine Wetland Site Prioritization Project	WS Study	Siuslaw WSC	MID Coast	<b>\$23,920</b>
55-04	McKenzie R. Watershed NPS Assessment and Evaluation	WS Study	Eugene Wat & Electr Brd	MCKENZIE	<b>\$35,000</b>
57-04	Coos and Curry Counties WQ Monitoring Planning	WS Study	SW Oregon RC&DC	S. COAST	<b>\$14,578</b>
63-04	Smith River WS Bacteria Source Tracking Project	WS Study	Smith River WSC	UMPQUA	<b>\$102,616</b>
64-04	Charact. And Hydrodyn. Dist. Of Bacterial Contamination within S. Slough Estuary	WS Study	OR DSL	S. COAST	<b>\$82,650</b>
14-04	Johnson Creek Pesticide Investigation Contamination Turbidity	Watershed Study	Johnson Creek WSC	L. Willamette	<b>\$19,993</b>
15-04	Eval. & Demo.Sprayer Meth.to Reduce Pest. Drift from Orch. to Stream	Demonstration	Mid-Colum.Ag Re.& Ext. Ctr.	MID EAST	<b>\$99,660</b>
19-04	Small Acreage Water Quality Technical Assistance Program	Info & Ed.	E.Mult.SWCD&Clack.Co.SWCD	L. WILLAMETTE	<b>\$99,990</b>
21-04	Clean Water Action Project	Info & Ed.	ODEQ	TUALATIN	<b>\$35,000</b>
40-04	Private Well Outreach for the Willamette Groundwater Mgmt Area	Info & Ed.	Oregon State University	UP WILLAMETTE	<b>\$125,588</b>
43-04	Organizing 2005 Children's Clean Water Festival in Tillamook County	Info & Ed.	Tillamook Estuaries Partner.	TILLAMOOK	<b>\$5,000</b>
47-04	Crooked River Watershed Riparian Planting and Propagation Program	Info & Ed.	Crooked River WSC	EASTERN	<b>\$29,350</b>
53-04	Up Willamette Groundwater Quality Improv/Protection	Info & Ed.	Lane Co COG	UP WILLAMETTE	<b>\$80,000</b>
04-04	2004-05 Nestucca-Neskowin WS Council Streamside Planting Prog.	On the ground	Nestucca-Neskowin WS Cou	N. WEST	<b>\$48,400</b>
05-04	2004-05 Nestucca-Neskowin WS Council Streamside Plant.Maint.Proj.	On the ground	Nestucca-Neskowin WS Cou	N. WEST	<b>\$16,225</b>
22-04	City of Wheeler Stormwater Pollution Reduction Project	On the ground	City of Wheeler	N. WEST	<b>\$28,200</b>
24-04	Tillamook SWCD 2004 Stream Enhancement & Restoration	On the ground	Tillamook Co. SWCD	TILLAMOOK	<b>\$60,084</b>
25-04	Mid-coast Ag. NPS Pollution Reduction	On the ground	Lincoln SWCD	MIDCOAST	<b>\$213,523</b>
30-04	Upper Nehalem Watershed Riparian Restoration & Monitoring Program	On the ground	Upper Nehalem WS Council	N. WEST	<b>\$56,925</b>
37-04	Myrtle Creek Watershed Riparian Fencing Planting	On the ground	Umpqua Basin WSC	UMPQUA	<b>\$24,200</b>

39-04	Burnt River BMP Juniper Riprap Study	On the ground	Burnt River SWCD	EASTERN	\$14,200
44-04	Tillamook buffer Strip Effectiveness Study: Phase II	On the ground	Tillamook Estuaries Partner.	TILLAMOOK	\$23,550
45-04	Backyard Planting Program	On the ground	Tillamook Estuaries Partner.	TILLAMOOK	\$36,300
54-04	Lane Regional TMDL Impl. Plan - Willamette Basin	On the ground	Lane Co COG	UP WILLAMETTE	\$148,349
58-04	Mountain Creek Storm Drain Treatment Wetlands	On the ground	City of Ashland	ROGUE	\$59,000
59-04	Walla Walla TMDL Impl and BMP Monitoring (2004-2005)	On the ground	Walla Walla WSC	EASTERN	\$39,270
60-04	Lower South Fork Coquille Riparian Restoration	On the ground	Coos SWCD	S. COAST	\$17,570
29-04	NPS Stormwater Protection System	Pollution Prevention	City of Sutherlin	UMPQUA	\$28,800
02-04	Applegate River TMDL Implementation Plan Dev.	TMDL Dev	Applegate River WSC	S. WEST	\$38,260
20-04	Temp.Asses.in Supp.of TMDL Devel. in Deschute&JohnDay River Basins	TMDL Dev	ODEQ	EASTERN	\$190,450
Subtotal of pass through funds for implementation projects:					\$1,875,551
Subtotal of BASE program					\$1,316,749
<b>Total request for FY 2004</b>					<b>\$3,192,300</b>



For additional information on the workplans presented to EPA Region X for funding for the 2004 FY, please refer to the document: "OREGON's INTENDED USE PLAN for FY 2004"

## OWEB Watershed Enhancement Grants

The Oregon Watershed Enhancement Board (OWEB) (formerly the Governor's Watershed Enhancement Board, GWEB) plays a key role in assisting Watershed Councils and Soil and Water Conservation Districts with technical support and funding. The OWEB administers a watershed restoration grant program, which annually disperses millions of dollars to local groups and individuals.

The Oregon Watershed Enhancement Board's (OWEB) primary function is to administer a competitive grant program that annually underwrites \$20 million in watershed protection and restoration actions across Oregon. Almost any person, group, or local agency is eligible to apply. State and federal agencies are ineligible, but can partner with a qualified applicant. Regional panels with expertise in such disciplines as forest and range management, water quality, hydrology, and fish biology evaluate proposals, bringing their knowledge of local conditions and concerns to the evaluation process. The regional panels make recommendations on the technical merit of projects, and OWEB staff take these recommendations to the Board in the context of the program budget. OWEB funds roughly half of the approximately 400 applications it receives each year. Please refer to the enclosed document named: "**Investments in Oregon's Future**". This document highlights only a few of OWEB's significant investments in each of 15 basins that make up the hydrological map of Oregon. While the project examples have been drawn from a pool of investments dating to 1997, the map below, and individual basin maps that preface each section, identify the location of projects funded by OWEB in each basin from July 2001 through December 2002.

OWEB also invests approximately \$5 million annually to conduct research and monitoring and to provide technical assistance that relates directly to supporting successful watershed restoration and protection. These investments are vital for grounding OWEB's policies and project funding decisions in the best science available, and to the successful implementation of restoration projects. These investments are not highlighted in the stories that follow, but are the foundation of the successful projects.

The following pie chart distribution presents a breakdown of types and the number of projects funded during the 2001-2003 bienium.

Similar to DEQ's nonpoint source grants, OWEB grant recipients must pledge at least 25% in matching funds in order to receive their grants. Therefore, the total value of these combined projects is at least \$ 20 million each year. For more detailed information on the OWEB program, please refer to the OWEB website: <http://www.oweb.state.or.us/>

OWEB's watershed assessment guidance manual for local Watershed Councils has been and continues to be used by a number of Watershed Councils. A stream and watershed restoration inventory is being developed to track public and private efforts to restore watershed health. OWEB, after input from the Joint Legislative Committee on Salmon and Stream Enhancement, adopted priorities for funding for the Watershed Improvement Grant Fund, with emphasis on whole watershed approaches, beginning in the head- waters and uplands and working downslope and downstream.

Members of the Oregon Governor's Watershed Enhancement Board include one person from each of the bodies listed below:

Organizations with Voting Board Members:

- ✓ *Oregon Environmental Quality Commission;*
- ✓ *Oregon Water Resources Commission;*
- ✓ *Oregon Board of Agriculture;*
- ✓ *Oregon Fish and Wildlife Commission;*
- ✓ *Oregon Board of Forestry;*
- ✓ *Six members representing Watershed Councils, citizens, and First Nations.*

Organizations with Non-Voting Board Members:

- ✓ *USDA Forest Service;*
- ✓ *USDI Bureau of Land Management;*
- ✓ *Oregon State University Cooperative Extension Service;*
- ✓ *USDA Natural Resources Conservation Service;*
- ✓ *Environmental Protection Agency; and National Marine Fisheries Service.*

OWEB-DEQ Partnership

OWEB plays a very large and an ever-increasing role in Oregon's NPS control program. It is the principal funding source for implementation of The Oregon Plan, including the financial and technical support of Watershed Councils.

In recent years, OWEB has published several important documents to guide watershed processes that address watershed assessment, water quality monitoring, aquatic habitat restoration, and watershed scale restoration action plans. Some of these documents include:

- ✓ *Water Quality Monitoring Technical Guide Book;*
- ✓ *Habitat Restoration Guide*
- ✓ *Oregon Watershed Assessment Manual*
- ✓ *Oregon Aquatic Habitat Restoration and Enhancement Guide*



Each of these documents was prepared with DEQ input, and each has become central to the functioning of our NPS program. OWEB's regional and statewide advisory committees, as well as the Board itself, serve as highly energized forums for discussion and action on watershed issues of all kinds. Copies of these documents could be obtained by accessing the OWEB webpage at: <http://www.oweb.state.or.us/>

Together, the Nonpoint Source and the watershed restoration grants promote the shared vision of healthy watersheds and natural habitats that support thriving communities and strong economies.

## **OREGON DEPARTMENT OF AGRICULTURE**

The Oregon Department of Agriculture (ODA) is the lead state agency for addressing water quality issues associated with agricultural activities in Oregon [see Oregon Revised Statutes (ORS) 568.900 through 568.933, ORS 561.191, and ORS 468B.200 through 468B.230].

ODA is responsible for developing and implementing agricultural water quality management area plans and the administrative rules. When adopted, the plans and administrative rules provide the strategy and regulatory backstop, i.e. the force of law, necessary to address water pollution from agricultural activities and lands. The purpose of these plans and rules is to prevent and control water pollution from agricultural activities and soil erosion. These plans and rules also serve as the principal implementation mechanism for TMDLs as they affect agricultural lands and activities.

ODA has identified 39 agricultural water quality management planning areas (AgWQMA) that cover all of the non-federal and non-tribal lands in the state. As of December 31, 2002, AgWQMA plans and rules have been completed for 24 of the 39 areas. The remaining areas are in various stages of development and are expected to be completed by mid 2004. As TMDLs are issued for an area with an existing agricultural water quality management plan, the plan will be reviewed and revised as necessary to ensure consistency with the TMDL.

As part of the development and implementation of these agriculture water quality management plans, ODA and its partner agencies in conservation efforts – the state's 45 soil and water conservation districts, the USDA Natural Resources Conservation Service, the USDA Farm Services Agency, and Oregon State University – are providing technical assistance, providing financial assistance, and conducting educational outreach activities to agricultural and rural landowners. These efforts are to raise awareness of water quality and natural resources issues, to develop collaborative solutions, and to engage landowners in conservation work.

Landowner workshops, one-on-one meetings, BMP field days, demonstration projects, and other activities are the primary means being employed to raise awareness of agricultural water quality issues and their solutions. During 2002 an EPA 319 grant supported the Oregon Department of Agriculture's program by supporting designated management agencies efforts toward implementing the existing AgWQMA program. The EPA 319 grant directly contributed to supporting 163 public meetings, 42 workshops, 29 field tours, 25 demonstration projects, 94 press releases, and, over 660 meetings with individual landowners. These outreach activities resulted in landowners pursuing and completing development of at least 65 individual farm plans and the implementation of over 50 conservation projects. In addition other landowners were inspired to pursue conservation activities on their own without outside assistance. Thus, the numbers reported here are probably an underestimation of the number of conservation projects implemented as a result of the outreach associated with this grant.

The result of all of these outreach activities is that land owners are much more aware of water quality concerns and the relationship of these concerns to beneficial uses. Thus, landowners are much more proactive about water quality issues than they were five years ago and we continue to see landowner interest develop.

The Agricultural Water Quality Management Plan (AgWQMP) review process has begun addressing TMDLs as they are approved and the plans are up for review. The plans are on a two year cycle to be reviewed and updated as necessary. As TMDLs are approved, the results from them are shared with the Local Advisory Committees and incorporated into the plans. The plans include best management practices that address the issues raised in the TMDLs. Additionally, all but five basins in Oregon have AgWQMP's in place currently.

Representatives from DEQ and ODA worked together with a number of interests (representatives from Soil and Water Conservation Districts, Watershed Councils, etc.) to support two Agriculture Riparian Workshops open to the public. The workshops were held in two locations around Oregon and focused on TMDLs, the importance of riparian areas, and examples of practices to enhance and restore them



## Oregon Department of Forestry

Currently, the ODF staff is updating and revising the Forest Practice's Act (FPA) Water Protection Rules. The revisions will include recommendations that were made by the Forest Practices Advisory Committee (FPAC), the Eastside Riparian Functions Advisory Committee (ERFAC), and the joint ODF/DEQ Sufficiency Analysis.

The recommendations have been combined and drafted into rule language. The Board of Forestry is required to approve the draft language before it goes out for public comment and then will adopt new rules following the public comment period.

Combined with the July Board of Forestry meeting was a field trip to the Hinkle Creek Paired Watershed Study site. The tour was conducted by ODF staff and researchers that are conducting various riparian studies in the area. The purpose of the tour was to familiarize all of the participants with the rule concepts being proposed, to discuss how those concepts would be implemented on the ground, and to review issues related to water quality and fish habitat.

## **IV. FUTURE DIRECTION FOR THE OREGON NONPOINT SOURCE PROGRAM**

### **WATER QUALITY STANDARDS**

DEQ expects to adopt comprehensive revisions to the State water quality toxic criteria set out in Table 20 by early 2004.

Due to a federal court decision which overturned EPA's 1999 approval of Oregon's water quality criteria for temperature, DEQ expects to revise Oregon's temperature criteria by the end of 2003.

### **TMDLS**

DEQ will continue to develop and implement TMDLs that address Nonpoint Source pollution throughout Oregon. During 2003 - 04, DEQ intends to complete the TMDL for the Willamette, Umpqua, Rogue and North Coast (Wallowa, Walla Walla, Imnaha and Lower Grande Ronde) basins.

### **WILLAMETTE BASIN**

The DEQ has begun the development of Total Maximum Daily Loads (TMDLs) for the Willamette River and some of its tributary rivers and streams. The DEQ is scheduled to complete TMDLs for nine of the 12 Willamette River sub-basins by the end of 2004. The nine sub-basins are the Lower Willamette, Clackamas, Middle Willamette, North Santiam, South Santiam, Upper Willamette, McKenzie, Middle Fork and Coast Fork. TMDLs for the Yamhill and Molalla-Pudding sub-basins are not due until 2007. With Tualatin TMDLs completed (2001), the DEQ is approaching the work on TMDLs for the remaining 9 sub-basins as one large project.

Total maximum daily loads for temperature, bacteria, mercury and several other parameters will be developed for the Willamette Basin in 2004. Load allocations for nonpoint sources including urban, agriculture and forestry will require protection or restoration of riparian areas that provide shade to temperature impaired streams and their tributaries. Load allocations for bacteria and mercury will emphasize pollution prevention and management strategies that decrease delivery of these pollutants to surface waters in the basin. DEQ has collaborated with federal and local agencies and watershed councils to gather information used to support the development of these TMDLs.

### **GRANTS**

For FY 2004, DEQ will continue to provide approximately \$2.2 million in Nonpoint Source grant money. Similarly, OWEB will continue to fund watershed council personnel and restoration projects.

In addition, DEQ intends to undertake rulemaking in our State Revolving Fund (SRF) Loan Program to clarify the eligibility criteria for community nonpoint source projects. Historically, the SRF has been used to provide low interest loans to “public entities” to construct domestic wastewater infrastructure. Existing law already allows public entities to borrow money for nonpoint source control purposes, but to date, few public agencies have sought to use the money in this manner. DEQ will consider changing its rules to ensure community nonpoint source pollution projects are given appropriate access to the SRF.

## **TRAINING AND OUTREACH**

The Oregon State University Extension Service has developed a watershed education curriculum, named Watershed Steward Educational Program (WSEP). The WSEP is an umbrella program for statewide watershed education delivered through the partnership of Oregon State University (OSU) Extension Service and Oregon Sea Grant. WSEP works in collaboration with other organizations, such as [watershed councils](#), [soil and water conservation districts](#) (SWCDs), federal and state agencies, and non-profit groups to meet the watershed education needs of Oregon citizens and to help carry out the mission of the [Oregon Plan for Salmon and Watersheds](#). The WSEP will continue to evolve to have an active role in providing the needed education forum for watershed partners.

The aim of WSEP is to increase the capacity of watershed groups and community members to identify and address water resource issues at local levels. Increased capacity is achieved through: education programs, skill-building Master projects new and strengthened local partnerships among residents, organizations, businesses, agencies, and educational institutions.

WSEP offers 3 program types:

The Core Program Advanced Programs Supplemental Programs is a comprehensive watershed enhancement educational program (consisting of curriculum, training materials and learning aids) that will enable target audiences to learn to form effective partnerships, to assess conditions and develop strategies for mitigating or enhancing watershed resources, and to implement effective enhancement projects. WSEP is a joint program of the agriculture, forestry and Sea Grant Extension program areas.

DEQ seeks opportunities to leverage funds while targeting the general public in an ongoing effort for water quality education. This effort involves many partners at the local, state and federal level. Through the 319 priority process we expect to continue to identify those water quality education projects that assist the state of Oregon to accomplish this goal.

Partners

The State and Federal agencies operating in Oregon have a long history of cooperation in water quality programs. Many of these relationships have been formalized in memoranda of agreement as early as 1976. These documents reflect commitments to share information and work cooperatively on matters of mutual interest.

Although these agreements have been revised from time to time, the most recent one was signed more than ten years ago. Consequently, these agreements do not directly address many of the existing features of the State water quality program including the Nonpoint Source Program, monitoring and assessments, and TMDLs. Therefore, negotiations are already underway to revise many of these agreements and ensure that the combined agency efforts are as efficient and effective as possible.

### **PROGRAM CONTACTS**

For More information on the Oregon Nonpoint Source Program, contact any of the following individuals:

For information on nonpoint source grants, contact Ivan Camacho at (1) (800) 452-4011 ext. 5088/(503) 229-5088. [camacho.ivan@deq.state.or.us](mailto:camacho.ivan@deq.state.or.us).

For information on coastal and small community stormwater nonpoint source programs, contact Don Yon at (1) (800) 452-4011 ext. 5076/(503) 229-5076. [Yon.Donald.R@deq.state.or.us](mailto:Yon.Donald.R@deq.state.or.us).

For general information on the nonpoint Source program, contact Gene Foster at (1) (800) 452-4011 ext. 5589/(503) 229-5589. [gene.foster@deq.state.or.us](mailto:gene.foster@deq.state.or.us).



Priorities for funding priority projects under the Oregon 319 program for FY 2004

TABLE 4. PROJECT PRIORITIES FOR EASTERN REGION PROPOSALS.

Eastern Region: Hood Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
Approved by EPA January 2002	Western Hood	All	Temperature (Hood River)	Completed	Completed	Needed	Needed	NPS Reduction Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts Develop and Implement Projects, Education and Programs to reduce NPS temperature Restoration of riparian shade, floodplains and wetlands Stable channel restoration Raise public awareness of NPS from forestry, agriculture, roadways, cities, development City, County, Agency implementation program development BMP monitoring and inventory
			Pesticides	Needed	Needed	Needed	Needed	
2004	Miles Creeks	All	Temperature (subbasin-wide) Sediment (Fifteenmile Watershed)	In progress	In progress	Needed	Needed	All of the above, plus: Facilitate WQMP development
	Miles Creeks (continued)		Pesticides (not listed in 2002 but identified by ODEQ as a significant NPS concern in the Basin based upon monitoring data)					

Eastern Region: Grande Ronde Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
Approved by EPA 2000	Upper Grande Ronde	All	Temperature, sediment, habitat, D.O., pH, algae, nutrients, bacteria, flow	Completed	Completed	Needed	Needed	NPS Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts Develop and Implement Projects, Education and Programs to reduce NPS temperature, sediment, bacteria and nutrients Restoration of riparian shade, floodplains and wetlands Stable channel restoration Animal feedlot controls/relocation Raise public awareness of NPS pollution from forestry, agriculture, roadways, cities, development City, County, Agency implementation program development BMP monitoring and inventory
In Develop. (2004)	Lower Grande Ronde	All	Temperature, sediment	In Progress	In Progress	Needed	Needed	All of the above plus Develop and implement projects, education, and programs to reduce NPS sediment
In Develop. (2004)	Wallowa	All	Temperature, dissolved oxygen, sediment, bacteria, pH	In Progress	In Progress	Needed	Needed	All of the above plus Develop and implement projects, education, and programs to reduce NPS sediment

Eastern Region: Grande Ronde Basin (cont)								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
In Develop. (2004)	Imnaha	All	Temperature	In Progress	In Progress	Needed	Needed	<p>NPS reduction projects that include demonstration, education, monitoring, and/or promotion of water quality efforts</p> <p>Develop and implement projects, education, and programs to reduce NPS temperature</p> <p>Restoration of riparian shade, floodplains, and wetlands</p> <p>Stable channel restoration</p> <p>Raise public awareness of NPS from forestry, agriculture, roadways, cities and development</p> <p>City, County, Agency implementation program development</p> <p>BMP monitoring and inventory</p>

\*

Eastern Region: Umatilla Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
Approved by EPA 2001	Umatilla	All	Temperature sedimentation bacteria (basin-wide) Nitrate (Wildhorse only) Ammonia (Low. Umatilla only)	Completed	Completed	Needed	Needed	NPS Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts Develop and Implement Projects, Education and Programs to reduce NPS temperature, sediment, bacteria and nutrients Restoration of riparian shade, floodplains and wetlands Stable channel restoration Animal feedlot controls/relocation Raise public awareness of NPS pollution from forestry, agriculture, roadways, cities, development City, County, Agency implementation program development BMP monitoring and inventory Umatilla Sub-basin - assess Wildhorse Creek nitrate source
In Develop. (2001)	Walla Walla	All	Temperature (basin-wide) Flow Mod. (North Fork WW only)	Complete	Complete	Needed	Needed	Ongoing TMDL implementation planning TMDL implementation (See Umatilla Subbasin above)
In Develop. (2001)	Willow	All	Temperature pH (basin-wide) Bacteria (Balm Fork only)	In progress	In progress	Needed	Needed	Facilitate WQMP development Monitoring and assessment related to TMDL development Stream temperature and bacteria reduction measures

Eastern Region: John Day Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2003	North Fork John Day	All	Temperature (widespread) Biological Criteria (Cottonwood Ck only)	Needed	Needed	Needed	Needed	Facilitate WQMP development Monitoring and assessment related to TMDL development Temperature reduction and habitat improvement measures.
2003	Middle Fork John Day	All	Temperature (widespread) Flow modification (mouth to Crawford Ck only)	Needed	Needed	Needed	Needed	

Eastern Region: Klamath Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
EPA Approved August 2002	Upper Klamath Lake, Sprague, Williamson	All	Temperature	Completed	Completed	Needed	Needed	<p>NPS Reduction Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts Develop and Implement Projects, Education and Programs to reduce NPS temperature Restoration of riparian shade, floodplains and wetlands</p> <p>Stable channel and wetland restoration Raise public awareness of NPS pollution from forestry, agriculture, roadways, cities, development City, County, Agency implementation program development BMP monitoring and inventory</p>
			pH, DO, Chlorophyll-a	Completed	Completed	Needed	Needed	
In Develop. Expected draft in 2005)	Lost River Upper Klamath	All	<p>Temperature</p> <p>pH, DO, bacteria, chlorophyll-a</p>	In progress	Needed	Needed	Needed	<p>Nonpoint Source Pollution Reduction Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts Develop and Implement Projects, Education and Programs to reduce NPS temperature Restoration of riparian shade, floodplains and wetlands Stable channel restoration Raise public awareness of NPS pollution from forestry, agriculture, roadways, cities, development City, County, Agency implementation program development Facilitate WQMP development</p>

Eastern Region: Malheur Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2003	Upper Malheur	All	Temperature (widespread) Bacteria, Flow Modification	Needed	Needed	Needed	Needed	<p>NPS Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts</p> <p>Develop and implement projects, education and programs to reduce NPS temperature, sediment, bacteria and nutrients</p> <p>Restoration of riparian shade, floodplains and wetlands</p> <p>Stable channel restoration</p> <p>Animal feedlot controls/relocation</p> <p>Raise public awareness of NPS pollution from agriculture, roadways, and development</p> <p>City, County, Agency implementation program development</p> <p>BMP monitoring and inventory</p>
2003	Lower Malheur	All	Temperature Bacteria, Toxics, Chlorophyll a	Needed	Needed	Needed	Needed	
				Needed	Needed	Needed	Needed	
2003	Bully	All	Bacteria (Mouth to Westfall) Chlorophyll a (Mouth to Bully Ck Reservoir)	Needed	Needed	Needed	Needed	
2003	Willow	All	Bacteria, Chlorophyll a	Needed	Needed	Needed	Needed	

Eastern Region: Deschutes Basin								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
In Develop. (2005)	Upper Deschutes	All	Temperature (Widespread) pH (Deschutes River) Dissolved Oxygen (Deschutes River) Sedimentation and Turbidity (Deschutes River) Chlorophyll-a (Deschutes River)	In progress  Needed: Lava Lake and Odell Lake assessment  Further implementation study on Deschutes River above Bent	In progress	Needed	Needed	Monitoring and assessment related to TMDL development Nonpoint Source Pollution Reduction Projects that include demonstration, education, monitoring, and/or promotion of water quality efforts Develop and Implement Projects, Education and Programs to reduce NPS temperature, pH, DO, sediment Restoration of riparian shade, floodplains and wetlands Stable channel restoration Raise public awareness of NPS pollution from forestry, agriculture, roadways, cities, development City, County, Agency implementation program development Facilitate WQMP development



Eastern Region: Deschutes Basin (continued)

TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
In Develop. (2005)	Little Deschutes	All	Temperature (widespread) Dissolved Oxygen (Little Deschute River)	In progress	In progress	Needed	Needed	All of the above listed for the Upper Deschutes Basin
In Develop. (2005)	Upper Crooked Lower Crooked	All	Temperature (widespread) pH (Crooked River) Fecal Coliform (Crooked River) Total Dissolved Gas (Crooked River)	Needed	Needed	Needed	Needed	All of the above listed for the Upper Deschutes Basin
In Develop. (2005)	Beaver-South Fork	All	Temperature (widespread)	Needed	Needed	Needed	Needed	All of the above listed for the Upper Deschutes Basin
In Develop. (2005)	Trout	All	Temperature (widespread) Sedimentation (widespread)	Needed	Needed	Needed	Needed	All of the above listed for the Upper Deschutes Basin

Eastern Region: Deschutes Basin (continued)

Programmatic Activity Needs for 319 Funds								
In Develop. (2005)	Lower Deschutes	All	Temperature (widespread)  pH (Deschutes River/Lake Billy Chinook)  Dissolved Oxygen (Deschutes River"  Chlorophyll-a (Deschutes River/Lake Billy Chinook)  Sedimentation (Rock Creek, Gate Creek)	Needed	Needed	Needed	Needed	All of the above listed for the Upper Deschutes Basin

TABLE 5. GROUNDWATER-RELATED 319 PRIORITIES, FY 2004 (Malheur, Lower Umatilla Basin and Upper Willamette)

Investigat'n Area	319 Priorities	Comments
Lower Umatilla Basin Groundwater Management Area	<p>Documentation of BMP Implementation throughout the GWMA in a system that allows spatial analysis (e.g., GIS)                      Field scale BMP performance evaluations                      Revision of some fertilization guides and recommended BMPs                      Evaluation of mineralization N test                      Development of outreach material / strategy for small acreage growers and/or lawn and garden care                      On-site system demonstration projects,                      Evaluation of nitrate leaching from food processing waste water land application during winter,                      Evaluation of differential nitrate leaching due to irrigation water mgt., nutrient application, and/or crop rotation.                      Other activities reducing pollutant loading to groundwater                      Post signs on major roads entering GWMA as a way to increase general awareness</p>	<p>Continued implementation of                      GWMA Action Plan</p>
Investigation Area	319 Priorities	Comments
Northern Malheur County Groundwater Management Area	<p>BMP Implementation                      Documentation of BMP Implementation throughout the GWMA in a system that allows spatial analysis (e.g., GIS)                      Educational programs to teach irrigation mgt. practices to farm owners and workers,                      Evaluation of differential nitrate leaching due to irrigation water mgt., nutrient application, and/or crop rotation,                      Research economic viability of converting from flood irrigation to drip irrigation for lower-value crops                      Other                      Post signs on major roads entering GWMA as a way to increase general awareness</p>	<p>Continued implementation of                      GWMA Action Plan</p>

Investigation Area	319 Priorities	Comments
Upper Willamette basin	<p>Public education and community involvement in basin specific groundwater quality issues,  Outreach to private well owners,  Hydrogeologic investigations to assist in GWMA investigations  Investigations into groundwater surface water interactions</p>	<p>The Upper Willamette Valley has been targeted for future Ground Water Management Area (GWMA) investigations due to identification of extensive groundwater contamination in the area. These projects integrate well with an overall watershed approach to water quality issues.</p>

TABLE 6. PROJECT PRIORITIES FOR WESTERN REGION PROPOSALS.

Western Region: Rogue Basin								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2004	Middle Rogue	Evans Creek	Temperature, bacteria	---	Needed	Needed	---	TMDL Development
		Bear Creek	Temp, bact, hab/flow mod	---	---	Needed	Needed	Implementation
2004	Lower Rogue	All other 5 <sup>th</sup> Fields	Temperature, bacteria	---	Needed	Needed	---	TMDL Development
		Grave Creek	Temperature	---	---	Needed	Needed	Implementation
2004	Illinois River	All other 5 <sup>th</sup> Fields	Temperature	---	Needed	Needed	---	TMDL Development
		Sucker Creek	Temp, hab/flow mod	---	---	Needed	Needed	Implementation
2003	Applegate	All other 5 <sup>th</sup> Fields	Temperature, flow mod	---	Needed	Needed	Needed	Implementation
		Williams Creek	Temperature	---	---	Needed	Needed	Implementation
2004	U Rogue (above Lost Ck Dam)	Star/Beaver/Palmer	Sediment, hab/flow mod	---	---	Needed	Needed	Implementation
		Little Applegate	Temperature	---	---	Needed	Needed	Implementation
2004	Upper Rogue (below Lost Creek Dam) Including Little Butte Creek	All other 5 <sup>th</sup> Fields	Flow mod, temperature	---	---	Needed	Needed	Implementation
		Foster/Woodruff/Abbott	Temperature, hab mod	---	---	---	Needed	Implementation
2004	Upper Rogue (below Lost Creek Dam) Including Little Butte Creek	All other 5 <sup>th</sup> Fields	Temperature	---	Needed	Needed	---	TMDL Development
		Little Butte Creek	Temp, flow mod, bacteria, sediment, habitat mod	---	Needed	Needed	---	TMDL Development
		Elk Creek	Temperature	---	Needed	Needed	---	TMDL Development
		Trail Creek	None	Needed	Needed	---	---	Assessment/Planning
2004	Upper Rogue (below Lost Creek Dam) Including Little Butte Creek	Big Butte Creek	Temperature	---	Needed	Needed	---	TMDL Development
		All other 5 <sup>th</sup> Fields	Temperature, sediment, pH chlphyl a, hab mod, bacteria	---	Needed	Needed	---	TMDL Development

Western Region: Umpqua Basin								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2008	North Umpqua	North Umpqua	Toxics	Needed				Subbasin-scale toxics assessment
2001		Little River	Temperature, sediment, pH, habitat modification			Needed		Implementation of shade targets; sediment control projects
2004		Steamboat/Canton	Temperature, DO, pH, sediment, habitat modification			Needed		Temperature reduction projects; sediment control projects
2004		Rock Creek	Temperature			Needed		Temperature reduction projects
2004		N. Umpqua Headwaters	Temperature, DO, pH, habitat modification			Needed		Temperature reduction projects
2004		Mid. N. Umpqua	Temperature, DO, pH			Needed		Temperature reduction projects
2004		L. N. Umpqua	Temperature, flow modification			Needed		Temperature reduction projects
2008		Sutherlin Creek Watershed	Arsenic, iron, lead, copper, manganese, mercury	Needed		Needed		Toxics assessment
2004		Diamond Lake	pH, algae			Needed		Nutrient reduction/tui chub removal
2008		South Umpqua Subbasin	Toxics	Needed				Subbasin-scale toxics assessment
2004	South Umpqua	W. Fork Cow Creek	Temperature			Needed		Temperature reduction projects
		S.. Umpqua Headwaters	Temperature, pH, sediment, flow modification			Needed		Temperature reduction projects; sediment control projects
		M. Cow Creek	Temperature			Needed		Temperature reduction projects
		Lower Cow Creek	Temperature, pH, toxics, habitat modification			Needed		Temperature reduction projects
		Elk Creek	Temperature, flow modification			Needed		Temperature reduction projects
		Upper Cow Creek	Temperature			Needed		Temperature reduction projects
		Middle South Umpqua	Temperature, bacteria, DO, pH,			Needed		Temperature reduction projects
		Myrtle Creek	Temperature, flow/habitat modification			Needed		Temperature reduction projects

		Deer Creek	Temperature, DO, bacteria		Needed	Temperature reduction projects; Bacteria source identification
		Lookingglass Creek	Biocriteria, flow modification		Needed	
		L. S. Umpqua	Temperature, pH, DO, bacteria, habitat modification		Needed	Temperature Reduction projects
2004	Smith River	Lower Smith River	Temperature, bacteria		Needed	Temperature reduction projects; bacteria source identification
		Upper Smith River	Temperature		Needed	Temperature reduction projects
2004	Umpqua Mainstem	Loon Lake	Temperature		Needed	Temperature reduction projects
2004		Wolf Creek (Tyee Frontal)	Temperature, bacteria		Needed	Temperature reduction projects
2004		Calapooya Creek	Temperature, bacteria, DO, pH, flow/habitat modification		Needed	Temperature reduction projects; bacteria source identification
2008		Calapooya Creek Watershed	Mercury, copper, lead, iron, manganese	Needed		Toxics assessment
2004		Elk Creek	Temperature, bacteria, DO, flow modification		Needed	Temperature reduction projects, bacteria source identification
2004		Paradise Creek (Reedsport/Elkt on Frontal)	Temperature		Needed	Temperature reduction projects
2004		Smith-Umpqua Estuary	Temperature, bacteria		Needed	Temperature reduction projects; bacteria source identification

Western Region: South Coast Basins								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2001	Coquille	Upper So Fork	Temperature				Needed	Implementation
2002	Lower Rogue	Lobster Creek	Temperature				Needed	Implementation
2002	Coquille	East Fork Coquille River	Temperature			Needed	Needed	Planning, Implementation
2002	Coquille	Big Creek (Middle Fork trib.)	Temperature			Needed	Needed	Planning, Implementation
2003	Chetco	Chetco River (lower)	Temperature	USFS ownership Needed		USFS - Needed	Needed - private lands	Assessment, Planning, Implementation
2003	Chetco	Hunter / Pistol / Winchuck	Temperature	USFS and Winchuck Needed	USFS and Winchuck Needed	USFS- Needed	Needed - private lands	Assessment, Planning, Monitoring, Implementation
2003	Chetco	Chetco River(upper)	Temperature	USFS ownership Needed	USFS - Needed	USFS- Needed	Medium	Assessment, Monitoring, WQRP development
2003	Sixes	Elk River	Temperature	USFS - ownership Needed	USFS - Needed	USFS - Needed	Needed - private lands	Assessment, Monitoring, WQRP development , Implementation
2003	Sixes	New River, Fourmile, Morton, Floras, Bethel, Butte	Temperature			Needed	Needed	Planning, Implementation
2003	Sixes	Sixes River	Temperature			Needed	Needed	Planning, Implementation
2003	Sixes	Floras, Croft Lakes	Aquatic weeds, algae	Needed	Needed	Medium	Medium	Condition Assessment, Monitoring
2004	Lower Rogue	Rouge mainstem	Temperature, pH		Needed	Medium	Medium	Monitoring
2005	Coquille	Middle Fork	Temperature, DO	Needed	Needed	Medium	Medium	Condition Assessment, Monitoring



Western Region: South Coast (cont)								
TMDL Submission Date	Sub-Basin	Watershed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2005	Coquille	North Fork	Temperature, bacteria			Needed	Needed	Planning, Implementation
2005	Coquille	Lower So Fork	Temperature, bacteria			Needed	Medium	Planning
2005	Coquille	Cunningham, Bear Creek	Bacteria, DO			Needed	Needed	Planning, Implementation
2005	Coquille	Catching Creek	Temperature	Needed	Needed	Medium	Medium	Condition Assessment, Monitoring
2005	Coquille	Coquille Bay	Bacteria	Needed	Needed	Medium		Condition Assessment, Monitoring
2005	Coquille	Coquille River	Bacteria, chlorophyll A, temperature	Needed	Needed	Medium		Condition Assessment, Monitoring
2005	Coos	Coos Bay	Bacteria	Needed	Needed	Needed	Needed	Condition Assessment, Monitoring, Planning, Implementation
2005	Coos	Larson, Catching, Coalbank, Haynes, Kentuck, Larson, Stock, Willanch Slough / Inlet	Bacteria	Needed	Needed	Needed	Needed	Condition Assessment, Monitoring, Planning, Implementation
2005	Coos	South Slough, Joe Ney Slough	Bacteria	Needed	Needed	Medium	Needed	Condition Assessment, Monitoring, Implementation
2005	Coos	Isthmus Slough	DO	Needed	Needed	Needed	Medium	Condition Assessment, Monitoring, Planning
2005	Coos	Larson Creek	Temperature	Needed	Needed	Medium	Needed	Condition Assessment, Monitoring, Implementation
2005	N Tenmile	Tenmile / Eel Lake	Aquatic weeds, algae			Needed	Needed	Planning, Implementation

TABLE 7. PROJECT PRIORITIES FOR NORTHWEST REGION PROPOSALS.

Northwest Region: Tillamook Basin								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
Approved: Tillamook 7/31/01 Nestucca 5/13/02	Wilson-Trask-Nestucca	Tillamook Bay	Temperature, Bacteria	Done	Done	Done (still need stormwater plans as noted)	Needed	<ul style="list-style-type: none"> <li>Implement temperature, bacteria, and sediment control strategies in Comprehensive Conservation and Management Plan (CCMP) developed by the Tillamook Bay Nat'l Estuary Program/Till. Cty. Performance Partnership (1999) for all of Tillamook County.</li> <li>Activities that would increase riparian shading, control livestock access to streams, control sediment sources, enhance manure management.</li> <li>Development of stormwater management plans for small communities.</li> </ul>
		Nestucca Bay	Sediment Temperature, Bacteria	Done	Done	Done (still need stormwater plans as noted)	Needed	<ul style="list-style-type: none"> <li>Implement temperature, bacteria, and sediment control strategies in CCMP.</li> <li>Implement priority activities in Nestucca-Neskowin Watershed Council Action Plan.</li> <li>Activities that would increase riparian shading, control livestock access to streams, control sediment sources, enhance manure management.</li> <li>Development of stormwater management plans for small communities.</li> </ul>
Approved: 8/7/01	Tualatin		Algal Growth/ Phosphorus, Bacteria, Dissolved Oxygen, Temperature		Complete	In Progress	Needed	<p>Projects to investigate, develop, implement and evaluate strategies to address phosphorus, temperature, bacteria and dissolved oxygen. This may include:</p> <ul style="list-style-type: none"> <li>NPS and storm water projects to identify bacteria sources and to investigate, develop and implement source control plans for bacteria.</li> <li>NPS projects for rural roadway BMP implementation efforts to address TMDL parameters.</li> <li>NPS projects designed to restore riparian shade and bank stabilization.</li> <li>Projects to assist with the review of local codes and ordinances relating to the control of TMDL pollutants (e.g. street design, planning and zoning, etc.).</li> <li>NPS and storm water BMP effectiveness evaluation efforts.</li> </ul>

Northwest Region: Nehalem-Necanicum–Lower Columbia Basins								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
Submitted July 2003	Nehalem		Temperature, Bacteria	Done	Done	In Progress	Needed	<ul style="list-style-type: none"> <li>Activities that would increase riparian shading, control livestock access to streams, control sediment sources, enhance manure management.</li> <li>Development of stormwater management plans for small communities.</li> </ul>
Submitted July 2003	Necanicum		Temperature, Bacteria	Done	Done	In Progress	Needed	<ul style="list-style-type: none"> <li>Activities that would increase riparian shading, control livestock access to streams, control sediment sources, enhance manure management.</li> <li>Development of stormwater management plans for small communities.</li> </ul>
Temperature/Bacteria submitted July 2003	Lower Columbia	Youngs Bay	Temperature	Done	Done	In Progress	Needed	<ul style="list-style-type: none"> <li>Activities that would increase riparian shading, control livestock access to streams, control sediment sources, enhance manure management.</li> <li>Development of stormwater management plans for small communities.</li> <li>Implement Lower Columbia River Estuary Partnership Comprehensive Conservation Management Plan.</li> </ul>
Dissolved Oxygen completed 2003		Clatskanie	Temperature, Bacteria	Done	Done	In Progress		
			Dissolved Oxygen	In Progress	In Progress			
Due in 2003		Lakes	Aquatic Weeds	In Progress	In Progress	In Progress	Needed	<ul style="list-style-type: none"> <li>Projects that quantify groundwater contribution.</li> <li>Projects that control sediment and nutrient sources to lakes.</li> <li>Projects that control nuisance aquatic vegetation</li> </ul>

Northwest Region: Columbia River Basin								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				TMDL Assessment	TMDL Development	Planning	Implementation	
2003	Lower Columbia	Columbia	Toxics (DDO, DDT, PCB) Arsenic	Needed	Needed	Needed	Needed	Implement Lower Columbia River Estuary Partnership Comprehensive Conservation Management Plan.
2004	Lower Columbia	Columbia	Temperature	Done	In Progress	In Progress	Needed	Implement Lower Columbia River Estuary Partnership Comprehensive Conservation Management Plan.
2004	Sandy	Sandy	Temperature	Done	Done	In Progress	Needed	Implement management measures as identified in watershed plan and Sandy River Basin Plan TMDL-related WQ monitoring in lower watershed tributaries Pollutant source identification WQ monitoring Implementation of projects to restore riparian shade

TABLE 8. PROJECT PRIORITIES FOR WILLAMETTE BASIN PROPOSALS.

Western and Northwest Regions: Willamette Basin:								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				Assessment	TMDL Development	Planning	Implementation	
2003	Clackamas	Clackamas	Temperature Bacteria	In progress	In progress	Needed	Needed	E. coli bacteria data that meet DEQ Level A protocol, collected June – Sept.  Address sources of contamination identified in Source Water Assessment Report.  Implement actions identified in Watershed Council Action Plans.  Planning and implementation of sustainable development and associated monitoring.
2003	Coast fork Willamette	Brice, layng, row, sharps	Temperature	In progress	Needed	Needed	Needed	Riparian zone enhancement, long-term monitoring
2003	Coast fork Willamette	Cottage grove and dorena res	Mercury	Needed	Needed	Needed	Needed	Source (sediment) identification and long-term assessment/monitoring
2003	Coast fork Willamette	Willamette river	Bacteria	Needed	Needed	Needed	Needed	Source identification, long-term monitoring
Approved 11/25/1998	Lower Willamette	Columbia slough	Algal growth/ phosphorus, DO/BOD, Bacteria, Toxics (pb, ddt/dde, dieldrin, dioxin, pcbs)	Done	Done	In Progress	Needed	Implement control strategies identified in management plans and TMDL documents
2004	Lower Willamette	Columbia slough	Temperature	In progress	In Progress	In Progress	Needed	Implement control strategies identified in management plans and TMDL documents
2004	Lower Willamette	Fairview, Blue, Smith-Bybee lakes	pH, aquatic weeds or algae	In progress	Needed	Needed	Needed	Projects that quantify groundwater input. Projects that reduce sources of sedimentation and nutrients to lakes.  Feasibility studies or implementation and monitoring of

Western and Northwest Regions: Willamette Basin:

TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				Assessment	TMDL Development	Planning	Implementation	
								techniques to decrease algal production. Projects that control nuisance aquatic vegetation.
2004	Lower Willamette	Johnson creek	Temperature, bacteria, toxics	In progress	In Progress	Needed	Needed	NPS and Stormwater BMP implementation and effectiveness evaluation TMDL Implementation-related monitoring efforts in tributaries and in the upper watershed
2004	Lower willamette	Spring brook crk	Bacteria	In progress	In Progress	Needed	Needed	Pollutant source identification WQ monitoring efforts
2004	Lower willamette	Tryon creek	Temperature	In progress	In Progress	Needed	Needed	NPS BMP Implementation
2004	Lower willamette	Willamette river	Temperature, bacteria, Toxics	In progress	In Progress	Needed	Needed	Tmdl effort partnerships
2004	Mckenzie	Mckenzie, mohawk, mill ck., Blue river and others	Temperature	In progress	In progress	Needed	Needed	Riparian zone enhancement
2004	Middle fork willamette	Fall ck, hills ck., Salt ck., Winberry ck and others	Temperature	In progress	In progress	Needed	Needed	Riparian zone enhancement, long term monitoring
2007	Molalla/Pudding		Temperature E. coli	Needed	Needed	Needed	Needed	Continuous temperature data that meets DEQ Level A protocol. E. coli bacteria data that meets DEQ Level A protocol, collected Oct. – May.  Address sources of contamination identified in Source Water Assessment Report
2003	North Santiam	Most	Temperature	Complete	In Progress	Needed	Needed	Long term monitoring plan
2003	South Santiam	Crabtree, Hamilton, Thomas, Mcdowell	Temperature	Complete	In progress	Needed	Needed	Tmdl partnerships, riparian zone enhancement, long-term monitoring

Western and Northwest Regions: Willamette Basin:								
TMDL Submission Date	Sub-Basin	Water-shed	Listed Parameters	Programmatic Activity Needs for 319 Funds				Primary 319 Project Need
				Assessment	TMDL Development	Planning	Implementation	
		others						
2004	Upper Willamette	Amazon and coyote creeks	Bacteria, dissolved oxygen	In progress	Needed	Needed	Needed	Source identification, assessment and long-term monitoring. Implement priority actions in Long Tom Watershed Council Action Plan.
2004	Upper Willamette	Calapooia	Bacteria , temperature	In progress	Needed	Needed	Needed	Source identification, assessment and long-term monitoring
2004	Upper Willamette	Long Tom	Bacteria , temperature	In progress	Needed	Needed	Needed	Implement priority actions identified in Long Tom Watershed Council Plan 2001
2004	Upper Willamette	Luckiamute	Bacteria	In progress	Needed	Needed	Needed	Source identification, assessment and long-term monitoring
2004	Upper Willamette	Marys river	Bacteria, temperature	In progress	Needed	Needed	Needed	Source identification, assessment and long-term monitoring. Implement actions identified in "Mary's River Watershed Preliminary Assessment (April 1999) and list of "Short Term IAction Items."
2007	Yamhill						Needed	Implement actions identified in "Yamhill Basin 2001 Action Plan."

**TABLE 9. Source Water Assessment 319 PRIORITIES**

Investigation Area	319 Priorities	Comments
Basins with Source Water Assessment Reports	<p>Implement actions in a drinking water protection area                      Address potential sources of contamination identified in a Source Water Assessment Report</p>	<p>Source Water Assessment Reports are being developed for 2656 public water systems in Oregon. DEQ and Dept. Human Services Health Division will delineate the groundwater and surface water source areas which supply the public systems, inventory each of those areas to determine potential sources of contamination, and determine the most susceptible areas at risk for contamination. Water systems can then choose to develop a voluntary drinking water protection plan to reduce the risk associated with potential sources of contamination.</p>