

SUBMITTED TO EPA REGION X

BY

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

MARCH 18, 2002

PORTLAND, OR



2001 Nonpoint Source Pollution 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 program.

Like many other years in the Oregon program, 2001 was extremely rewarding and productive. As described below, Oregon is clearly making significant progress toward meeting the substantial challenges presented by nonpoint source 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 \$2.2 million dollars in nonpoint source grants and another \$16 million in OWEB watershed restoration money to projects all across the State.
- Issued of 970 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, and
- 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 first of its kind in Oregon, a locallysupported watershed festival in Tillamook.
- FY 2002 Anticipated Activities
- Re-evaluate the quality of Oregon's waters and update the "impaired water" list.
- Update water quality memorandum of agreements with USFS and BLM.
- ✓ Continue to develop TMDLs addressing nonpoint sources of water pollution.
- Offer urban nonpoint sources technical assistance to address stormwater concerns in communities.
- Complete initial issuance of Agricultural Water Quality Management Plans throughout the state.
- Evaluate sufficiency of Forest Practices Act rules.

- 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.
- Submit program documentation for the State's Coastal Nonpoint source program to EPA and NOAA.

We will look for 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 out partner agencies to discuss the application of the anti-degradation component of our water quality standards to Nonpoint sources.

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. Table of Contents

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I. 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):

- ✓ 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.
- Permits for point sources, including storm water, discharging pollutants to State waters.
- ✓ Water quality [401] certifications of certain nonpoint source pollutant discharges including hydroelectric projects, and dredge and fill activities.
- Nonpoint source water quality management plans specifically developed for forestry, agriculture and urban activities.

- Biennial assessment of State waters to identify those waters that are not meeting water quality standards
- Pretreatment, Sewage Sludge Management and On-Site System programs to ensure that water quality is not compromised by other land- based activities.
- ✓ Development of total maximum daily loads (TMDLs) to correct those waters that are not meeting water quality standards.
- 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.



- ✓ Education and outreach activities to continuously remind the public about the importance of understanding NPS pollution and its impact in water quality.
- 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 subbasins.

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



Tidegate as a water quality/watershed restoration tool, Tillamook Basin (2001)

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:

- Department of Environmental Quality (see www.deq.state.or.us);
- ✓ Department of Agriculture (see www.oda.state.or.us)
- ✓ Department of Forestry (see www.odf.state.or.us);
- ✓ Oregon Watershed Enhancement Board (see www.oweb.state.or.us)
- ✓ Department of Fish and Wildlife (see www.dfw.state.or.us)
- ✓ Department of Land, Conservation and Development (see www.lcd.state.or.us)
- ✓ Department of Economic & Community Development (see www.econ.state.or.us)

 Department of Transportation (see 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 2001

Oregon's Nonpoint Source program has been extremely active in 2001. Significant accomplishments were made in various aspects of the State program including program improvement, relationships with partners, and enhancements in watersheds throughout the State. The highlights for this reporting period are set out below:

A. TEMPERATURE, TOXICS AND BIOCRITERIA 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



Federal state and local partners in action. Tillamook Watershed, 2001

reevaluated. These include a comprehensive review of the toxic pollutant criteria set out in Table 20 of the rule.

Nearly 250 of these criteria are expected to change by the end of 2002. Of these, 57 are designed to protect aquatic life, while 193 are focused on protecting human health.

We expect to complete this update by the end of calendar year 2002.

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.

On October 31, 2001, EPA released draft guidance containing recommendations to States and Tribes for developing and implementing temperature criteria throughout the Pacific Northwest. A public workshop on the guidance was held in Salem on December 4, 2001. The public comment period closed February 22, 2002. DEQ expects to continue to participate in the process until a final guidance becomes available. Once the guidance is final, Oregon has, according to an agreement with EPA regarding the State's existing temperature criteria, one year to

> decide whether and how to adopt the EPA guidance (Summer 2003).

DEQ has also been actively working on a methodology to develop numeric biocriteria for various "ecoregions" around the State.

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.

building, installation, excavation, machinery, equipment or devices.

 \checkmark Be documented.

Expenses that do not quality for the tax credit include

- \checkmark Septic tanks or other facilities for human waste:
- \checkmark Asbestos abatement; or any investment used for cleanup of emergency spills or unauthorized releases;

Other insignificant nonpoint source control measures

The rules allow a 50% credit for nonpoint source	Northeastern Basins: Highlights of 2001 319 Projects 319 NPS projects in the Northeastern Basin are focussed on vegetation	~	Other insignifican nonpoint source control measures
control expenses approved or "certified" by the Department. See Oregon	application of chemicals through land use practices associated with agriculture and transportation. For surface water, elevated temperature is the most widespread concern. For groundwater, excess nitrate presents area-wide problems. This has led to the designation of two ground water management areas. In 2001, the 319 program funded ripation vegetation restoration, enging demonstration of conservation	Item inclu	ns that do qualify ude
Administrative Rules OAR [340-16-0005- 0080] for a	tillage, noxious weed reduction, precision application of conservation and irrigation water, support for temperature TMDL development and basin assessment, education, outreach and coordination of efforts.	~	Landscaping and fencing;
description of the process to follow to obtain a pollution control tax credit.	In Umatilla County an increase of zero to 25,000 acres of conservation tillage in less than 5 years. enabled by 319 awards, has led to a widespread acceptance and understanding of the Umatilla and Walla Walla Basin TMDL efforts. Municipalities and County officials now meet regularly to develop responsiveness to these watershed goals in Morrow, Union and Umatilla Counties. The Walla Walla Basin Watershed Council le facilitation and umatilia for analytication and flaw restoration.	~	Reconstruction of parking lots, and roadways so long as they have a
Source Pollution Tax Credit is	projects. This Council has a position funded through the 319 program which has co-developed the Oregon temperature TMDL - they can now model temperature reduction associated with large projects; This is very		pollution-control purpose.
intended to cover expenditures for "on-the-ground" management practices and improvements. It is not intended to cover education	empowering to project managers and participants. With this level of increased activity and awareness, the program in northeastern Oregon is evolving toward a new focus of linking restoration to regulatory mechanisms, i.e., ordinances, easements, incentives, etc. At the same time the program must follow through with ongoing outreach and technical demonstrations, that maintain and guide the trends toward improved water quality.	In a expe leas follo circu	ddition, the ense must meet at t one of the wing umstances: <i>Be incurred as a</i>
outreach or monitoring	costs.	J Drotoci	result of a U.S.

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,

Environmental Protection Agency or Oregon Department of Environmental Quality requirement, including TMDLs and groundwater management area action plans; or

 \checkmark 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 fundingimplementation plan including the Tax Credit option to implement management practices addressing NPS pollution concerns.

C. TMDLs Addressing Nonpoint Source Pollution

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 and pending TMDLs.

The majority of the State's TMDL work involves nonpoint sources of pollution. DEQ estimates that 75 percent (68) of the 91 watershed subbasins 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];*

- ✓ Lower Snake Creek temperature, sedimentation, pH, nutrients, aquatic weeds/algae and dissolved oxygen];
- Upper Grand 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 <u>a</u> 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/Snake Rivers MOA.

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.

In January 2001, DEQ signed a Memorandum of Agreement with the EPA and the State of Idaho

Table I: Completed and Pending TMDLs

Subbasin	TMDLs/ Sub-	River Miles	Status
Bear Creek	3	27	1992 (APROVED)
Clear Lake 35 acres	1		1992 (APROVED)
Coast Fork, Willamette	2	66	1996 (APROVED)
Columbia Slough	10	19	1998 (APROVED)
Coquille River	3	346	1996 (APROVED)
Garrison Lake, 90 acres	1		1992 (APROVED)
Little River	16	173	2002 (APPROVED)
Lobster Creek	3	17	(public comment opened 11/01)
Lower Sucker Creek	3	10	2001 (public comment opened
			10/01)
Nestucca Bay	6	106	(public comment closed)
Pudding River	16	60	1993 (APROVED)
Rickreall Creek	1	9	1994 (APROVED)
Snake River–Hells Canyon	8	221	(public comment opened on 12/01)
Sprague	15	324	7/2001
Tillamook Bay (Tillamook/	39	224	2001 (APPROVED)
Nestucca)			, , ,
Tualatin	97	277	2001 (APPROVED)
Tualatin River	12	283	1992 (APROVED)
Tualatin River	12	283	1994 (APROVED)
Umatilla	34	379	2001 (APPROVED)
Up. Sucker Grayback	1	0.6	1999 (APPROVED)
Upper Grande Ronde	74	469	2000 (APPROVED 5/3/00)
Upper Klamath Lake	8	6	(public comment opened on 12/01)
Upper S. Fork Coquille	7	90	2001 (APPROVED)
Wallowa	18	145	Under development
Western Hood	7	31	2001
Williamson	3	93	Under development
Yamhill River	3	201	1992 (APPROVED)
TOTAL SUBMITTED (1999-	411 TMDL's	3401.6 miles	
7/2001)			

N/	THE			
Year	TMDL'S	# IMDL'S	# IMDL's Required Yet To	IMDL's Required to be
	Approved by	Submitted to	Be Submitted to EPA	Approved by EPA,
	EPA	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	
2004			311	310
2005			143	
2006			134	
2007			112	
2008				982
2010				1153

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

D. MEMORANDUM OF AGREEMENT BETWEEN USFS AND DEQ.

During the year 2001, DEQ initiated discussion with the United States Forest Service (FS) and Bureau of Land Management (BLM) to update existing water quality joint efforts (Memorandum of Agreement, a.k.a. MOA). These agreements are expected to be completed during 2002 are aimed at strengthenening 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 purposes of the MOAs are to:

✓ Collaborate on priorities, strategies and funding using a watershed approach to protect and restore water quality on National Forest System (NFS) and Bureau of Land Management (BLM) lands.

- ✓ Foster and enhance communication, coordination and working relationships between DEQ and the FS/BLM.
- ✓ Identify FS/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 FS/BLM as a Designated Management Agency (DMA) for meeting Clean Water Act (CWA) requirements on NFS/BLM lands.
- Recognize, clarify and support DEQ and FS/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 MOAs create a framework in which the DEQ and FS/BLM can effectively cooperate on programs and projects of mutual concern to protect, restore and maintain water quality Statewide. These MOAs also minimize duplication of efforts.

E. COASTAL ZONE NPS PROGRAM

Oregon's Coastal Nonpoint Pollution Control Program (CNPCP) has been developed in compliance with requirements adopted as part of the Coastal Zone Management Act Reauthorization Amendments of 1990 (CZARA). CNPCP is administered at the federal level by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Air Administration (NOAA).

At the state level, the CNPCP is coordinated jointly by the Department of Land Conservation and Development (DLCD) and DEQ. 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 riparian areas and 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 zone. Current state water quality, wetland, and land use laws, as well as the Forest Practices Act and the early development of The Oregon Plan for Salmon and Watersheds, insured that the state already met many requirements of CZARA. 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.

North Coast Basins: Highlights of 2001 319 Projects

Tillamook Children's Clean Water Festival

The festival was a collaboration between Portland State University and the Tillamook County Performance Partnership. The event was held on May 29, 2001 at the Twin Rocks Friends Camp at Raceway Beach. The festival involved 500 fourth grade students from throughout Tillamook County. The festival also involved some two dozen teachers and volunteers. The event centered on a number of workshop presentations. Events included: Water On The Move; Physical Properties of Water; Water Quality; Water Quality and Conservation; Groundwater/Hydrology; Watersheds and Wetlands; and Getting Involved.

Tillamook Bay Watershed Monitoring

The Tillamook County Performance Partnership conducted water quality monitoring within the Tillamook Bay Watershed. One project involved an allvolunteer basin-wide water quality monitoring program. The volunteers sampled temperature, bacteria, and sediment five times per week. The second project, in conjunction with Oregon State University, used state-of-the art DNA testing that differentiates between human, livestock, and animal fecal coliform. These two projects provided data to DEQ critical in the development of the Tillamook Basin TMDL information and data provided by the monitoring projects is valuable as TMDL Implementation Plans are developed.

Nestucca-Neskowin Watershed Monitoring and Enhancement

The Nestucca-Neskowin Watershed Council conducted basin-wide water quality monitoring and riparian restoration activities. The Nestucca-Neskowin Watershed Council Technical Assistant coordinated volunteers in the collection of water quality data. The volunteers sampled temperature, bacteria, and sediment 5 times per month. The data collected has been critical for the development of a Nestucca-Neskowin Watershed TMDL. The TMDL is expected to be completed by July, 2002. Data and information provided by the project has also been crucial in the development of riparian restoration projects. Currently the Council is involved in restoration projects on 12 individual properties in the Three Rivers area of the watershed.

Nehalem Watershed Monitoring and Riparian Enhancement

The Nehalem Watershed Council conducted water quality monitoring and riparian restoration throughout the Nehalem River watershed. The Nehalem Watershed Council Coordinator in conjunction with volunteers sampled temperature, bacteria, and sediment 5 times per month. Data and information provided has assisted the DEQ in the development of a Nehalem River watershed TMDL. The TMDL is expected to be completed in 2002. The data has also assisted the Watershed Council in the identification, prioritization and construction of specific riparian restoration projects. Restoration efforts to date have resulted in 50 individual projects and over 14 miles of riparian restoration.

Since receipt of the conditional approval of the state's CNPCP the following activities have occurred:

 Received approval by NOAA and EPA of the state's request to maintain the CNPCP boundary for the Columbia River at the

existing Coastal Program boundary at Puget Island.

- Received agreement by both EPA and NOAA to approve existing Oregon Plan commitments, along with provisions in current land use laws as meeting the urban watershed management measure.
- Received agreement by both EPA and NOAA to exempt the state from meeting state and federal highway management measures due to ODOT's intention of covering all construction and maintenance activities under a statewide municipal stormwater National Pollutant Discharge Elimination System permit.
- Received tentative agreement by both EPA and NOAA on the Oregon's submittal on measures for Protecting and Restoring Riparian Areas.
- Received tentative agreement by both EPA and NOAA on the Oregon's submittal on Measures for Marinas and Recreational Boating.
- ✓ Developed the DLCD/DEQ Water Quality Model Code and Guidebook which recommends implementing mechanisms such as model ordinances, comprehensive land use plans amendments, rules changes, guidance documents and education and technical training to meet many of the urban management measures.
- ✓ Developed educational and presentation materials for local governments 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.
- ✓ Obtained federal funding (through EPA's Section 319 and NOAA) for DEQ and DLCD's CNPCP Coordinator positions.

On going tasks to be completed by DLCD and DEQ to provide a complete Oregon CNPCP Program Plan for NOAA and EPA approval by December 2002:

Obtain a legal opinion from the state attorney general stating that existing enforcement authorities can be used to prevent NPS and require management measure implementation, as necessary.

Prepare a description of the mechanisms or process that links the implementing agency with the enforcement agency and a commitment to use the existing enforcement authorities where necessary.

Prepare a Submittal of Additional Information on the State's Measures for Agricultural Sources to NOAA and EPA.

Prepare a Submittal of Additional Information on the State's Measures for Urban Sources to NOAA and EPA, including finalizing the Water Quality Model Code and Guidebook to facilitate the adoption of local ordinances designed to meet Clean Water Act requirements; Endangered Species Act, 4(d) Rule; and natural resource statewide land use planning goals.

Develop technical assistance program for local governments to facilitate the adoption of the urban component of basin-wide water quality management plans, building on work already completed with development of the Water Quality Model Code and Guidebook and related materials.

Implement remaining management measures prioritized as commitments under The Oregon Plan. Continue progress reporting by implementing state agencies as part of The Oregon Plan. Continue to prepare CNPCP yearly progress reports to NOAA and EPA on meeting program requirements and implementation of CNPCP Management Measures.

Implement CNPCP Management Measures through Urban Water Quality Management Implementation Plans being developed as required by the TMDL process, the agricultural water quality plans (SB1010 Rules) and the State Forest Practices Act in the following Oregon Plan priority basins: Umpqua, Rogue, South Coast, and Tillamook/North Coast Basins.

Prepare a final CNPCP submittal plan to NOAA and EPA and receive full program approval.

F. 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 demostration of BMP as it pertains to groundwater quality protection.

DEQ Nonpoint Source Grants

In 2001, DEQ revised the cirteria 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;

Western Basins: Highlights of 2001 319 Projects

319 funds have been used effectively in the Umpqua basin, covering the spectrum from assessment through water quality management planning and on to implementation. The Umpqua Basin Watershed Council is using a 319 grant to conduct watershed assessment in the privately-owned sections of the Umpqua Basin, to complement the watershed assessments already conducted on federal land by the Forest Service and BLM. These assessment include actions plans to address problems identified during the assessment process. 319 funds are also assisting the Watershed Council to develop a basin-wide temperatures management plan based on intensive temperature studies in the basin over the past three years. A draft document outlining management strategies for temperature control has been circulated to watershed council members for their review, and will be expanded for their individual watershed assessments the Council is conducting.

On the implementation side, the Watershed Council is administering a grant to assist with riparian fencing and planting. The program, which results in conservation easements in riparian areas, has more landowners interest that can be accommodated, so the council staff developed a priority ranking system in order to use the funds where they will do the most good. The priority system takes into consideration the ecological condition of the watershed and its importance to sensitive fish species.

Another implementation project that will help fish as well as water quality is the effort to restore riparian vegetation on the North Fork of the Smith River. This tributary to the Umpqua, in many ways a unique watershed, supports more than half the Coho population of the entire Oregon Coast. The North Fork has temperature problems, which the riparian restoration will address. This is a challenging area for restoration due to the high streamflows during the most winters, when flooding and debris take their toll on fences and plantings. The Umpqua Soil and Water Conservation District is using this project to demonstrate to skeptical landowners that riparian restoration is possible even on the North Fork.

During 2001, DEQ made approximately \$2.5 million dollars available for 46 projects. The projects are summarized as follows:

FY 2001 Oregon 319 Projects

\$477,298
\$301,037
\$343,870
\$645,770
\$765,432
\$2,535,727

A summary of the description and status for each of project is found in Table III.

In order to qualify for this funding, each recipient agreed to match these funds with (40%) value in either in kind services or other funds (state, local) to support the project, or both.

Criteria for funding 2001 projects included:

- Whether the project objectives were clear, realistic and will protect or improve water quality.
- ✓ Whether the activities are appropriate and will achieve the project goals.
- ✓ The degree of local support as indicated (resources or technical support), is in excess of the required local match.
- Expectation that the project will result in long-term improvement or protection of water quality.
- ✓ Whether the project is cost-effective/efficient.
- I. Proposals should be consistent with Oregon 319 Priorities: Projects addressing these priorities must include one or more of the following:
- *II.* Projects addressing the Total Maximum Daily Loads priorities;
- III. Water quality projects addressing priority issues in publicly owned lakes currently listed in the priority streams document (303(d) list);
- *IV.* Drinking water supplies from surface reservoirs and river intakes;

- V. Groundwater protection projects addressing contamination, Refer to Table V for a list of priority needs;
- VI. 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;
- VII. Other water bodies (surface or groundwater) that are publicly owned and locally important;
- VIII. Public water supplies that can demonstrate a need for protection or improvement.
- IX. Control of non-agricultural NPS pollution (such as urban stormwater, construction site erosion, etc.);
- X. 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, BMPs;
- XI. Loss of floodplain or wetland function;
- *XII.* Low and high flow affecting habitat and water quality;
- XIII. Information/education of public or targeted groups on NPS pollution issues and promoting increased use of BMPs in a watershed;
- XIV. Projects demonstrating strong local/regional involvement and support, including financial support or other resource contributions from governmental/private sources.
- XV. Activities that will help restore waterbodies on the "non-attainment list" (also referred to as the "303(d) list", or "Total Maximum Daily Load (or TMDL) list:"), which are waters that do not meet water quality standards;
- ✓ Soundness of the water quality description and the applicant's technical ability to carry out the project.

In 2002, 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. To date, few public

agencies have sought to use the funds for their nonpoint sources.

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 OWEB recognizes that a vast number of grant opportunities are available to local groups and has an interest in providing a coordination function in

this area. Some of the many funding sources OWEB coordinates include:

- ✓ Agricultural Conservation Program,
- ✓ Clean Water Act grants,
- ✓ Conservation Reserve Enhancement Program,
- ✓ FEMA grants, and Farmers Home Administration programs,
- ✓ Hire-the-Fisher Program,
- ✓ Jobs-in-the-Woods Program,
- ✓ Lottery funds/local government grants,
- ✓ ODFW Restoration and Enhancement Board, and
- ✓ Stewardship Incentives Program.

The 2001 Legislative Assembly increased OWEB's two-year funding to over \$40,000,000 (state and federal funds combined) to provide grants to local Watershed Councils and others. During 2001, OWEB distributed over \$16.1 million in grants for watershed enhancement and salmon recovery. These projects include education and outreach, water quality monitoring and assessments, support for watershed council personnel, and restoration projects such as

erosion control, vegetation management, wetlands, habitat restoration and fish passage improvements.

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, the reader is referred to the OWEB website.

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: <u>http://www.oweb.state.or.us/</u>

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 agency for addressing water quality mechanism for TMDLs as they affect agricultural activities. Regulations associated with the plans



issues

associated with agricultural activities in Oregon [see Oregon Revised Statutes (ORS) 568.900 through 568.933 and ORS 561.191].

ODA is responsible for developing and implementing agricultural water quality management area plans. The purposes of these plans are to prevent and control water pollution from agricultural activities and soil erosion. These plans also serve as the principal implementation are adopted in the form of administrative rules. Once adopted, they carry the force of law, and noncompliance is subject to enforcement.

ODA has aggregated a number of the state's 91 sub-basins into larger agricultural water quality planning areas, resulting in 39 agricultural water quality management planning areas covering virtually all of the state.

Summary of ODA's Agricultural Water Quality Management Area Plans (AWQMAP)

Plans already	Plans proposed for	Plans currently in	Plans yet to be initiated
16/39	4/39	16/39	3/39

The sixteen AWQMA Plans already adopted are:

- Tualatin River
- Bear Creek
- Upper Grande Ronde
- Umatilla River
- Lower Deschutes
- North Coast
- Yamhill River

Sandy Inland Rogue

 \checkmark

Additional plans that are in various stages of development are:

- \checkmark Coos & Coquille
- North/Middle Forks

John Day

- \checkmark Walla Walla
- \checkmark Southern Willamette

Vallev

- \checkmark Lost River
- Klamath Headwaters
- Mid-Coast
- Curry
- ODA expects to have all plans adopted or nearing the final stages of development by the end of 2002. Of course, once a corresponding TMDL is issued for an area with an existing agricultural water quality management plan, the plan may have to be revised to ensure consistency with the final TMDL.

As part of the development and implementation of these agricultural water quality management plans, the Oregon Department of Agriculture 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 conducting technical assistance, financial assistance, and educational outreach activities for agricultural and rural landowners to raise awareness of water quality and natural resource issues, to develop collaborative solutions, and to engage them in conservation work.

Landowner workshops, "shop talks", BMP field days, demonstration projects, and other activities are the primary means being employed to raise awareness of agricultural water guality issues and their possible solutions. In addition, coordination of agricultural educational outreach, monitoring, and financial assistance activities

 \checkmark Mid John Day

Umpqua

Malheur

Clackamas

Lower Columbia -

✓ Hood River

- \checkmark
- \checkmark
- \checkmark
- \checkmark South Santiam
- \checkmark Goose and Summer
- Lakes
- \checkmark Greater Harney Basin
- \checkmark Upper Willamette

with watershed councils and the Oregon Watershed Enhancement Board is broadening the base of projects and conservation practices being implemented on-the-ground.

OREGON DEPARTMENT OF FORESTRY

The Oregon Department of Forestry (ODF) has statutory authority to manage programs designed to protect water quality on State and private forestlands.

ODF is required to implement "best management practices" and other rules established by the Board of Forestry to ensure that to the maximum extent practicable nonpoint source pollution from forest operations do not impair the achievement and maintenance of water quality standards established by DEQ (through its policy-making body, the Environmental Quality Commission).

The Departments of Environmental Quality and Forestry have undertaken a "sufficiency" review of ODF's strategy in implementing the Forest Practices Act (FPA) and its effectiveness protecting water quality. This is a statewide evaluation, with regional considerations, and is currently focussing five water quality parameters: Temperature; Sedimentation; Turbidity; Habitat

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- Middle Deschutes
- Wallowa
- Molalla -Pudding/French Prairie/North Santiam
- Owyhee
- Lower Willamette
- Powder Brownlee
- Upper John Day Burnt River Middle Willamette Upper Deschutes

Modification; Biological Criteria; as well as a sixth category 'others' which may include Toxics. When completed (in 2002) this phase of the evaluation will result in potential rule and policy recommendations to the Board of Forestry (BOF).

The Board of Forestry (BOF) has also formed the forest practices advisory committees (FPAC) to review the FPA and make recommendations for needed changes if any are identified. The foundation of this committees' work is the body of scientific analysis and data that establish relationships between forest landscape condition, forest land management, and condition of the aquatic resources. The Eastern Riparian Functions Advisory Committee (ERFAC) was formed to work with interests in eastern Oregon to develop riparian measures for eastern Oregon forests. Since many of the riparian recommendations by the FPAC were based on data regarding western Oregon forests, the ERFAC was established to examine those recommendations and modify them in order to meet water quality standards and protect and restore salmonid habitat in eastern Oregon. ERFAC is comprised of individuals representing small and large forest landowners, environmental and sports-fishing organizations, logging and commercial fishing interests, local

governments, and labor unions. ERFAC is expected to make its recommendations to the BOF in the Fall of 2002.

OREGON STATE UNIVERSITY

The Oregon State University Agricultural Experimental Stations are continually engaged in updating its existing **BMP** manuals for agricultural commodities. These documents will become an integral tool in DEQ's agricultural NPS efforts. Completed manuals will feature in-depth descriptions, photographs and diagrams.

There exist strong relationships

between OSU and DEQ, particularly with OSU Extension. An example of this partnership is the efforts accomplished through the funding of 319

FPAC identified 24 recommendations to the BOF. These include: increasing density of tree retention along some forested streams; forested buffers in areas where no buffer requirements previously existed; improvements on fish passage; reduced sedimentation associated with proposed and existing forest roads; identification and protection of high risk sites (landslide prone sites); and the initiation of a "landscape approach" to assessing watersheds and forestry related impacts to water quality.

ODF is in the process of developing a



strategic plan under BOF direction, with proposed changes subject to public involvement.

project with the OSU Bioresource Engineering Department. The project consisted of funding a three-year field staff in the Rogue Basin, to assist with implementation of AWQMP and TMDL development. This field staff filled a need bringing together the education and cooperating efforts needed in the basin. A result of this partnership will be to utilize the lessons learned through this effort in and apply them to other basins.

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 the end of 2002.

DEQ expects EPA to issue final guidance to States and Tribes for developing water quality criteria for temperature in 2002, and DEQ expects to revise the Oregon criteria in 2003.

DEQ expects to adopt a methodology for selecting appropriate biocriteria by 2003.

TMDI s

DEQ will continue to develop and implement

TMDLs that address Nonpoint Source pollution throughout Oregon. During 2002, DEQ is expected to complete the TMDL for the Tillamook Basin, Hood Basin, Lower Sucker Creek, Little River (Umpgua), Lower Grande Ronde, and Upper Klamath Lake.

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 subbasins by the end of 2003. The nine sub-basins targeted for completion by 2003 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. Grants

In 2002, 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 is has produced a watershed education curriculum, named Watershed Steward Educational Program (WSEP). WSEP 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.

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.

For general information on the nonpoint Source program, contact Mark Charles at (1) (800) 452-4011 ext. 5589/(503) 229-5589. charles.mark@deq.state.or.us.

SUMMARY TABLES FOR THE FY 2001 319 PROJECTS

Table III. STATUS table for Oregon 319 FY 2001 Grants

EPA #	CAT	BASIN/ REGION	TYPE	REGION	PROJECT NAME	\$ REQ'TD	IMPLEMENT WORK	STATUS
01-01	PE	METRO	NPS	NWR	STUDENT WATERSHED RESEARCH PROJECT (SWRP)	\$46,585	OREGON GRADUATE INST.	ACTIVE
02-01	BMP	TILLAMOOK CO	NPS	NWR	LANEDA AVENUE STREET AND STORM DRAINAGE IMPROVEMENTS	\$30,000	CITY OF MANZANITA	ACTIVE
03-01	REST	TILLAMOOK CO	TMDL	NWR	TILLAMOOK SWCD STREAM ENHANCEMENT PROJECTS	\$58,725	TILLAMOOK SWCD	ACTIVE
04-01	BMP	NESTUCCA- NESKOWIN	TMDL	NWR	NESTUCCA-NESKOWIN WATERSHED COUNCIL	\$15,000	NESTUCCA NESKOWIN WSC	ACTIVE
51-01	WSS	COLUMBIA	TMDL	SW	COLUMBIA RIVER TMDL COORDINATION	\$108,538	DEQ-HQ	ACTIVE
05-01	MONI T	LOWER COLUMBIA	TMDL	NWR	L. COLUMBIA RIVER WSC MONIT AND RIPARIAN RESTORATION PROJECT	\$26,265	COLUMBIA SLOUGH WSC	ACTIVE
06-01	REST	UPPER NEHALEM	TMDL	NWR	NEHALEM WATERSHED HEALTH AND RIPARIAN RESTORATION	\$46,950	UPPER NEHALEM WSC	ACTIVE
07-01	REST	TILLAMOOK CO	NPS	NWR	SAM DOWNS RD.	AM DOWNS RD. \$61,310 DEP		ACTIVE
08-01	REST	NORTH COAST, LOWER COLUMBIA	TMDL	WIL	RESTORATION, ENHANCEMENT & PROTECT. SITES TO IMPROVE WQ IN COL. SLOUGH	STORATION, ENHANCEMENT & PROTECT. \$21,000 SITES TO IMPROVE WQ IN COL. SLOUGH		ACTIVE
09-01	MONI T	TILLAMOOK CO	TMDL	NWR	BACTERIA MONITORING IN THE TILLAMOOK BAY WATERSHED	\$10,362	TILLAMOOK CO PERF. PARTNERSHIP	ACTIVE
10-01	WSS	TILLAMOOK CO	NPS	NWR	DETECTING FECAL POLLUTION SOURCES IN THE TILLAMOOK WATERSHED	\$51,279	TILLAMOOK CO PERF. PARTNERSHIP	ACTIVE
11-01	PE	METRO	NPS	WIL	NATURESCAPING FOR CLEAN RIVERS	\$82,813	E. MULTNOMAH SWCD	ACTIVE
12-01	MONI T	WILLAMETT E	NPS	NWR	GPS MONIT OF MANURE AND IRR DELIVERY SYS ON WILL VALLEY DAIRY FARMS	\$25,410	OSU	ACTIVE
13-01	MONI T	MID WILLAMETT E	TMDL	NWR	LIVESTOCK NUTR & SED MONIT 4 TMDL \$2,710 PEDEE/RITNER DEV ON PEDEE CK, TRIBUTARY TO THE USC LUCKIAMUTE R		PEDEE/RITNER WSC	ACTIVE
14-01	REST	L. WILLAMETT E	NPS	WIL	WATERSHED REVEGETATION PROGRAM	\$75,000	CITY OF PORTLAND	ACTIVE
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EPA #	CAT	BASIN/ REGION	TYPE	REGION	PROJECT NAME	\$ REQ'TD	IMPLEMENT WORK	STATUS
15-01	MONI T	N. SANTIAM	TMDL	NWR	N. SANTIAM RIVER WATER QUALITY MONIT/EDUCATION PROJECT	\$22,250	CITY OF PORTLAND	ACTIVE
16-01	EDU	TUALATIN	NPS	NWR	"ONLY RAIN DOWN THE DRAIN" Public Awareness Campaign	\$55,000	TUALATIN BAS.REG COALITION	ACTIVE
17-01	BMP	YAMHILL	NPS	WIL	YAMHILL SUB-BASIN WATERSHED LANDOWNER TECH ASSISTANCE	\$46,000	YAMHILL SWCD	ACTIVE
18-01	BMP	WR	NPS	WR	BUILDING FOR A BETTER OREGON: WORKSHOPS TO CONTROL NON-POINT SOURCE POLLUTION FROM CONSTRUCTION AND ROAD BUILDING ACTIVITIES	\$42,400	PACIFIC STATES MARINE FISHERIES COMM	ACTIVE
19-01	REST	CURRY CO	TMDL	WR	CURRY SEDIMENT ABATEMENT	\$128,580	CURRY SWCD	ACTIVE
20-01	REST	UMPQUA BASIN	NPS	WR	NORTH FORK OF THE SMITH RIVER RIPARIAN ENHANCEMENT PROJECT	\$12,000	UMPQUA SWCD	ACTIVE
21-01	BMP	MID ROGUE	NPS	WR	GRAVE CREEK WATERSHED ASSESSMENT, PLANNING, AND EDUCATION EFFORT	\$18,480	,IDDLE ROGUE SWCD	ACTIVE
22-01	WSS	ROGUE	TMDL	WR	PRIVATE ROAD INVENTORY AND SEDIMENT YIELD ANALYSIS	\$16,644	WILIAMS CREEK WSC	ACTIVE
23-01	REST	UMPQUA BASIN	NPS	WR	JOYCE RANCH RIVERBANK STABILIZATION AND RIPAR ESTABLISH DEMO PROJ	\$28,325	DOUGLAS SWCD	ACTIVE
24-01	REST	UMPQUA BASIN	NPS	WR	UMPQUA BASIN RIPARIAN FENCING/PLANTING PROJECT	\$15,500	UMPQUA BASIN WSC	ACTIVE
25-01	REST	ROGUE	NPS	WR	APPLEGATE WATERSHED RIPARIAN RESTORATION PROGRAM	\$68,380	APPLEGATE R. WSC	ACTIVE
26-01	BMP	COQUILLE	NPS	WR	FERRY CREEK AND GEIGER CREEK SEDIMENT ABATEMENT	\$49,610	COQUILLE WS ASSOCIATION	ACTIVE
27-01	WSS	COQUILLE	NPS	WR	SOUTH FORK COQUILLE ROAD AND LANDING INVENTORY	\$35,750	COQUIILE WS ASSOCIATION	ACTIVE
28-01	REST	ROGUE	NPS	WR	LITTLE APPLEGATE FISH PASSAGE, STREAM FLOW AND WQ ENH PROJ– (FARMER'S DITCH PROJ)	\$70,000	COQUILLE WS ASSOCIATION	ACTIVE
29-01	WSS	COOS CO	TMDL	WR	TENMILE LAKES' WATERSHED RIPARIAN AND SEDIMENT ASSESSMENT	\$77,486	TENMILE LAKES BASIN PARTNERSHIP	ACTIVE
30-01	WSS	UMPQUA BASIN	TMDL	WR	UMPQUA STREAM TEMPERATURE MANAGEMENT PLANNING 2001	\$21,000	UMPQUA BASIN WSC	ACTIVE
31-01	BMP	CURRY CO	NPS	WR	PORT ORFORD MUNICIPAL WATER SUPPLY: SEDIMENT SOURCE REDUCTION	\$25,487	S. COAST COORDINATING WSC	ACTIVE
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EPA #	CAT	BASIN/ REGION	TYPE	REGION	PROJECT NAME	\$ REQ'TD	IMPLEMENT WORK	STATUS
32-01	WQA	COOS BAY	TMDL	WR	BACTERIOLOG CHARCT. OF DIRECT BAY TRIBUT STREAMS IN THE COOS ESTUARY, COOS CO, OR	\$48,228 COOS WS ASSOCIATION		ACTIVE
33-01	BMP	ILLINOIS	NPS	WR	SUCKER CREEK GRAVEL PUSH-UP DAM REMOVAL AND WATER CONSERVATION PROJECT	VI \$20,000 ILLINOIS VALLEY		ACTIVE
34-01	WSS	UMPQUA BASIN	TMDL	WR	UMPQUA BASIN WATERSHED ASSESSMENT AND ACTION PLAN, PHASE II	\$104,081	UMPQUA BASIN WSC	ACTIVE
35-01	PE	MID COLUMBIA	NPS	ER	A DEMO PROJ TO REDUCE RISK OF AG NPS THRU IPM IN THE DALLES AREA ORCHARDS	\$69,867	Wy'EAST RCDA	ACTIVE
36-01	PE	HOOD BASIN	NPS	ER	WRENTHAM SOIL-BIOENGINEERING DEMONSTRATION PROJECT	\$66,505	WASCO SWCD	ACTIVE
37-01	REST	HOOD BASIN	NPS	ER	FIFTEEN MILE WATERSHED IMPROVEMENT PROJECT	\$60,000	WASCO SWCD	ACTIVE
38-01	EDU	KLAMATH BASIN	NPS	ER	URBAN NPS EDUCATIONAL PROGRAM	\$12,000	\$12,000 OSU	
39-01	BMP	UPPER DESCHUTES	TMDL	ER	UPPER DESCHUTES WATER QUALITY AND TMDL DEVELOPMENT	\$45,611	\$45,611 UPPER DESCHUTES WSC	
40-01	MONI T	WALLA WALLA	TMDL	ER	WALLA WALLA WQ MONIT AND TMDL DEV/IMPL	\$26,900	\$26,900 WALLA WALLA WSC	
41-01	BMP	MALHEUR BASIN	NPS	ER	WILLOW CREEK DEMONSTRATION AND BMP IMPLEMENTATION PROJECT	\$42,000	WILLOW CREEK WSC	ACTIVE
42-01	WSS	UPPER DESCHUTES	TMDL	ER	TEMPERATURE ASSESSMENT IN SUPPORT OF TMDL DEVELOPMENT IN THE UPPER DESCHUTES AND LITTLE DESCHUTES SUB- BASINS OF CENTRAL OREGON	\$85,650	DEQ-ER	ACTIVE
43-01	BMP	PRIORITY BASINS	NPS	SW	DEFINING THE PERFORMANCE CHACTERISTICS OF THE STANDARD, ROCK FILLED, ON SITE, SEWAGE DISPOSAL TRENCH	\$75,000	DEQ-HQ	ACTIVE
44-01	BMP	MALHEUR BASIN	NPS	ER	DEMONSTRATIONS AND INNOVATIONS TO EXPAND SUBSURFACE DRIP IRRIGATION (SDI) IN OREGON	\$67,710	\$67,710 OSU	
45-01	MONI T	HOOD BASIN	NPS	ER	ORGANOPO4 RUNOFF & EFFECTS ON SALMONIDS IN HOOD R. BASIN: MONIT TO EVAL IMPACT OF LOAD REDUCT PRACT	\$94,140	\$94,140 OSU	
46-01	WSS	GRANDE RONDE	TMDL	ER	GRANDE RONDE BASIN WATERSHED ASSESSMENTS WILLOW CREEK UPPER WALLOWA RIVER	\$23,000	GRANDE RONDE MODEL WS	ACTIVE

EPA #	CAT	BASIN/ REGION	TYPE	REGION	PROJECT NAME	\$ REQ'TD	IMPLEMENT WORK	STATUS
47-01	CRD	STATEWIDE	NPS	SW	OREGON NPS PROGRAMS: ADMINISTRATION, COORDINATION AND PLANNING	\$509,093	DEQ	ACTIVE
48-01	MONI T	GRANDE RONDE	NPS	SW	GRANDE RONDE MONITORING	\$93,000	DEQ LAB	ACTIVE
49-01	WSS	PRIORITY BASINS	TMDL	SW	TMDL MODELING IN PRIORITY BASINS	\$193,776	DEQ-HQ	ACTIVE
50-01	PE	WILLAMETT E	NPS	WIL	WILLAMETTE RIVER URBAN STREAM BROCHURE	\$11,100	AUDUBON SOC OF PORTLAND	ACTIVE
52-02	CRD	COAST	NPS	WIDE	CZ NPS	\$175,000	DEQ-WQ	ACTIVE
					OREGON 319 BUDGET FOR FY 2001 WORKPLANS	\$3,217,500		

PRIORITIES FOR FUNDING PRIORITY PROJECTS UNDER THE OREGON 319 PROGRAM FOR FY 2001

Table IV. WESTERN OREGON PRIORITY for FY 2001 319 PROJECTS: S. Coast TMDL Status 03/00

TMDL				Program	mmatic Activity	Needs for 31	9 Funds	
Submittal Date	Subbasin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implemen tation	Prinary 319 Project Need
1999	Lower Rogue	Lobster Creek,	Temperature	Complete	Complete	High	High	Planning, RipZn Enhncmt, Sed. abatement
1999	Coquille	Upper So Fork	Temperature	Complete	Complete	Complete	High	RipZn Enhancement, Sed abatement
2000	Coquille	East Fork Coquille River	Temperature	Complete	Complete	Complete	High	Monitoring, RipZn Enhncmt, Sed. abatement
2000	Coos Bay	Larson Slough,	T, bacteria	High	Medium	Medium	Medium	Condition Assessment
2000	Coquille	Middle Fork (Big Creek)	Temperature	Complete	Complete	High	Medium	Monitoring
2001	Chetco	Chetco River(upper)	Temperature	USFS	High	High	Medium	Monit, enhancement planning
2001	Coquille	Lower So Fork	Temperature, bacteria	In Progress	High	High	Medium	Monit, enhancement planning
2001	N Tenmile	Tenmile Lake	Aquatic weeds, algae	In Progress	High	High	Medium	Monit, enhancement planning
2001	Sixes	Elk River	Temperature	Medium	High	High	Medium	Monit, develop planning components
2001	Coquille	North Fork	Temp, bacteria	High	High	Medium	Medium	Condition Assessment
2002	Sixes	New River, Fourmile, Morton, Floras	Temperature	Complete	Complete	High	High	Planning, RipZn Enhncmt, Sed abatement
2002	Chetco	Chetco River (lower)	Temperature	In Progress	High	High	Medium	Monit, enhancement planning
2002	Sixes	Sixes River	Temperature	In Progress	High	High	Medium	Monit, enhancement planning
2002	Chetco	Hunter Creek	Temperature	High	High	Medium	Medium	Condition Assessment, Monit
2002	Coquille	Cunningham Creek	Bacteria, DO	High	Medium	Medium	Medium	Condition Assessment
2002	Coquille	Catching Creek,	Temperature	High	Medium	Medium	Medium	Condition Assessment
2003	Sixes	Floras, Croft Lakes	Aquatic weeds, algae	High	High	Medium	Medium	Condition Assess, Monit
2004	Coos	Coos Bay	Bacteria	High	High	High	High	Assessment, Monit, Planning, Implement.

TMDL				Program	mmatic Activity	Needs for 319	9 Funds	D. ju
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implemen tation	Primary 319 Project Need
	Middle Rogue	Bear Creek	Temp, bact, hab/flow mod	Low	High	High	Medium	TMDL Development
	Lower Rogue	Grave Creek	Temperature	High	High	Medium	Medium	Assessment
	Illinois	Sucker Creek (Private Lands)	Temp, hab/flow mod	Low	High	High	Medium	TMDL Development
1999	River	Sucker Creek (Fed Lands)	Temp, hab/flow mod	Low	Low	Medium	Medium	Planning
		Illinois River Lawson	Temperature	Low	High	Medium	Medium	TMDL Development
		Williams Creek	Temperature	High	High	Medium	Low	Assessment
	Applegate	Star/Beaver/Palmer	Sediment, hab/flow mod	High	High	Medium	Low	Assessment
		Little Applegate	Temperature	Low	High	Medium	Low	TMDL Development
	Upper Rogue	Foster/Woodruff/Abbott	Temperature, hab mod	Low	High	Medium	Low	TMDL Development
		E. Fork Illinois	Temp, flow modification	High	High	Medium	Low	Assessment
		Althouse Creek	Temperature	High	High	Medium	Low	Assessment
		West Fork Illinois	Temp, flow modification	High	High	Medium	Low	Assessment
2000	Illinois	Deer Creek	Temperature	High	High	Medium	Low	Assessment
		Illinois River-Josephine	Temperature	High	High	Medium	Low	Assessment
		Briggs Creek	Temperature	High	High	Medium	Low	Assessment
		Illinois River-Klondike	Temperature	High	High	Medium	Low	Assessment
		Silver Creek	Temperature	High	High	Medium	Low	Assessment
		Indigo Creek	Temperature	High	High	Medium	Low	Assessment

Table V. WESTERN OREGON PRIORITY for FY 2001 319 PROJECTS: Rogue Basin TMDL Status 7/00

TMDL				Prograi	mmatic Activity	Needs for 31	19 Funds	Primary 319 Project NeedImplementationAssessmentImplementationNoneAssessmentAssessmentAssessmentSessmentAssessment
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessm ent	TMDL Develop ment	Plannin g	Impleme ntation	Primary 319 Project Need
1000	No. Umpqua	Little River	T, sed, pH, hab. Mod	Low	Low	Low	Med	Implementation
1777	So. Umpqua	West Fork Cow Creek	Temperature	High	High	Low	Med	Assessment
	Umpqua	Lower Smith River	Temperature	Low	Low	Low	High	Implementation
	So	So Umpqua Headwaters	T, pH, sed, flow m	Low	Low	Low	Low	None
	SU.	Middle Cow Creek	Temperature	High	Low	Low	Med	Assessment
2000	ompqua	Lower Cow Creek	T, pH, tox. hab mod	High	Low	Low	Med	Assessment
	No.	Steamboat/Canton Ck.	DO, pH, T, sed, hab. m	Low	Low	Low	Low	None
	Umpqua	Rock Creek	Temperature	Low	High	High	Low	TMDL
	Umnqua	Upper Smith River	Temperature	Low	High	High	Low	TMDL
	Umpqua	Loon Lake		Low	High	High	Med	TMDL
	So	Elk Creek	Temp, flow mod	Med	Med	Low	Med	Assessment
	Umpgua	Galesville		Med	Med	Low	Med	Assessment
	ompquu	Middle South Umpqua	Bact,DO,pH,temp.	Low	Med	Low	Med	TMDL
2001	No. Umpqua	No Umpqua Headwaters	DO, pH, T, hab. mod	Low	Low	Low	Low	None
		Tyee Frontal		Low	Low	Low	Med	Implementation
	Umpqua	Calapooya Creek	Bac, DO, pH, tem, flow /habitat	Med	Low	Low	Med	Assessment
		Myrtle Creek	T, hab./flow mod	Med	Low	Low	Med	Assessment
	So.	Olalla/Lookinglass	Biol. crit, flow mod	Med	Low	Low	Med	Assessment
	Umpqua	Lower South Umpqua	T, pH, DO, bact, hab.	Low	Low	Low	Med	Implementation
2002	No.	Middle North Umpqua	Temp, DO, pH	Low	Low	Low	Med	Implementation
	Umpqua	Lower North Umpqua	Temp, flow mod	Med	Low	Low	Med	Assessment
	United	Elk Creek	Bact, DO, T, flow mod.	Med	Low	Low	Med	Assessment
	unpqua	Reedsport/Elkton Fr.		Low	Low	Low	Med	Implementation
		Smith/Umpqua Estuary		Med	Low	Low	High	Implementation

Table VI. WESTERN OREGON PRIORITY for FY 2001 319 PROJECTS: Umpqua TMDL Status 7/00

Table VII. NORTHWEST OREGON PRIORITY SUB-BASINS FOR 319 PROJECTS IN FY 2001: Willamette

TMDL				Progra	mmatic Activity I	9 Funds	Drimary 310	
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implementat ion	Project Need
Approved 11/25/199 8	Columbia slough	Lower willamette	Algal growth/ phosphorus	Done	Needed	Needed	In development	Implement phosphorus control strategies identified in moas and permits
Approved 11/25/199 8	Columbia slough	Lower willamette	Do/bod	Done	Needed	Needed	In development	Inplement bod control strategies identified in moas and permits
Approved 11/25/199 8	Columbia slough	Lower willamette	Bacteria	Done	Needed	Needed	In development	Implement bacteria control strategies identified in moas and permits
Approved 11/25/199 8	Columbia slough	Lower willamette	Toxics (pb, ddt/dde, dieldrin, dioxin, pcbs)	Done	Needed	Needed	In development	Implement toxics control strategies identified in moas and permits
Approved 11/25/199 8	Columbia slough	Lower willamette	Temperature	Needed	Needed	Needed	In development	Need additional temperature data (flir, continuous monitoring) of slough

Table VIII. NORTHWEST OREGON PRIORITY SUB-BASINS FOR 319 PROJECTS IN FY 2001: Northcoast

TMDL				Progra	mmatic Activity I	9 Funds	Primary 319	
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implement- ation	Project Need
In developmn t, due in 2000	Tillamook	Wilson-trask- nestucca	Temperature	Done	Needed	Needed	Nep CCMP	Implement temperature management strategies identified in ccmp
In developmn t, due in 2000	Tillamook	Wilson-trask- nestucca	Bacteria	Done	Needed	Needed	Nep CCMP	Implement bacteria management strategies identified in ccmp
Done (1/27/199 4)in revision, due in 2000	Tualatin	Tualatin	Algol growth/ phosphorus	Done	Needed	Needed	Done	Implement phosphorus control strategies identified in management plans
In developmn t, due in 2000	Tualatin	Tualatin	Temperature	In developme nt	Needed	Needed	In development	Implement temperature management strategies
In developmn t, due in 2000	Tualatin	Tualatin	Bacteria	In developme nt	Needed	Needed	In development , related to Pollution control	Implement bacteria management strategies identified in management plans

Table IX. NORTHWEST OREGON PRIORITY SUB-BASINS FOR 319 PROJECTS IN FY 2001: North Coast: Nehalem-Nestucca

TMDL			Programmatic Activity Needs for 319 Funds				9 Funds	Primary 319
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implemen tation	Project Need
Submitted	Nehalem	Nehalem	Temperature	Watershed plan being developed	Needed	Needed	In develop	Additional temperature assessment
Submitted	Nehalem	Nehalem	Bacteria	Watershed plan being developed	Needed	Needed	In develop	Additional bacteria assessment
	Nestucca	Wilson-trask- nestucca	Temperature	Watershed plan action available	Needed	Needed	In develop	Implement practices in watershed action plan
Submitted	Nestucca	Wilson-trask- nestucca	Bacteria	Watershed plan action available	Needed	Needed	In develop	Implement practices in watershed action plan
	Nestucca	Wilson-trask- nestucca	Sediment	Watershed plan action available	Needed	Needed	Needed	Additional sediment assessment, implement practices in watershed action plan

TMDL	Cult Durin	Materials and		Progra	mmatic Activity	Needs for 319	9 Funds	Primary 319		
Date Waters	Watersned	Listed Parameters	Assessment	TMDL Development	Planning	Implemen tation	Project Need			
In developme nt	Lower Columbia	Columbia	Bacteria, DO, Toxics (as DDE, DDT, PCB, pH)	Bi-state study, LCREP CCMP	Needed	Needed	LCREP CCMP	Implementation of LCREP CCMP		
In developme nt	Lower Columbia	Columbia	Total dissolved gas	USACOE gas abatement, EPA model	Commencing development in conjunction with Y2K waiver	Needed	USACOE gas abatement	TMDL development implementation planning		
In developme nt	Lower Columbia	Columbia	Temperature	EPA Model	Needed	Needed	Needed	Finalization of EPA model, conceptual approach for TMDL		
In developme nt	Lower Columbia	Columbia	N/A	Needed	N/A	Needed	Needed	Survey and management plan for non-indigenous aquatic invasive species.		

Table X. NORTHWEST OREGON PRIORITY SUB-BASINS FOR 319 PROJECTS IN FY 2001: Northcoast: Columbia River

Table AL EASTERN OREGON PRIORITT SUB-DASINS FOR ST9 PROJECTS IN FT 2001										
			Eastern F	Region: Colu	mbia River					
Tmdl	Sub-basin	Watershed	Listed parameters	Progra	mmatic activity	needs for 31	9 funds	Primary 310		
Submital Date				Assessment	TMDL development	Planning	Implemen tation	Project need		
Dec 2001	Lower Columbia	Columbia	Total dissolved gas	USACOE gas abatement, EPA model	Commencing development in conjunction with y2k waiver	Needed	USACOE gas abatement	Tmdl development implementation planning		
Dec 2001	Lower Columbia	Columbia	Temperature	EPA model	Needed	Needed	Needed	Finalization of epa model, conceptual approach for tmdl		
		_	Easter	n region: Kla	math basin					
Tmdl				Progra	mmatic activity	needs for 31	9 funds			
Tmdl Submital	Sub-basin	Watershed	Listed parameters	Progra	ammatic activity	needs for 31	9 funds	Primary 319		
Tmdl Submital Date	Sub-basin	Watershed	Listed parameters	Progra Assessment	mmatic activity TMDL development	needs for 31	9 funds Implementat ion	Primary 319 Project priorities		
Tmdl Submital Date	Sub-basin Sprague	Watershed All watersheds	Listed parameters Temperature Dissolved oxygen Ph	Progra Assessment	In progress	needs for 31	9 funds Implementat ion Needed	Primary 319 Project priorities Reduction of the following parameters - stream temperature, sediment, nutrients, bacteria; public awareness of nps pollution in urban situations. Use of innovative bmps, and/or education components.		

Table VI EASTERN OPECON REIODITY SUB RASINS FOR 310 PROJECTS IN EV 2001

			Eastern	Region: Uma	tilla basin			
TMDL				Progra	mmatic Activity	9 Funds	Primary 319	
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implemen tation	Project Need
APPROVED	Umatilla	All watersheds	Temperature, sediment, bacteria (basin-wide); nitrate (Wildhorse) ammonia (L. Umatilla)	In progress	In progress	Needed	Needed	Reduction of stream temp., sediment, nutrient, and bacteria impacts simultaneously innovative technologies that include monitoring and education components Raise public awareness of NPS pollution in urban situations Low cost restoration of degraded wet meadows Education component as a demonstration project. Projects that control introduction of pesticide residual into groundwater and surface waters; include monitoring and/or education/demonstration components; address reduction of one or more of the following: parameters: stream temperature, sediment, nutrient, and bacteria impacts.

TMDI				Progra	mmatic Activity	Needs for 319	9 Funds	_	
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implemen tation	Primary 319 Project Need	
Approved	Umatilla	All watersheds	Temperature, sediment, bacteria (basin- wide); nitrate (Wildhorse) ammonia (L. Umatilla)	In progress	In progress	Needed	Needed	Reduction of stream temp., sediment, nutrient, and bacteria impacts simultaneously	
	Walla walla	All	Temperature	In progress	In progress	Needed	Needed	Raise public awareness of nps pollution in urban situations	
	Walla walla	All	Temperature	In progress	In progress	Needed	Needed	Low cost restoration of degraded wet meadows	
Approved	Walla walla	All	Temperature	In progress	In progress	Needed	Needed	Education component should focus on its use as a demonstration project. Projects that prevent and control introduction of pesticide residual into groundwater and surface waters. Projects that include monitoring and/or education/demonstration components. Projects that address reduction of one or more of the following: parameters: stream temperature, sediment, nutrient, and bacteria impacts	

			Eastern	Region: Uma	tilla basin			
TMDL				Progra	mmatic Activity	Needs for 31	9 Funds	Drimany 210
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implementat ion	Project Need
	Willow	All	Temperature, pH (basin-wide), bacteria (Balm Fork)	In progress	In progress	Needed	Needed	Reduction of stream temp., sediment, nutrient, and bacteria impacts.
	Willow	All	Temperature, pH (basin-wide), bacteria (Balm Fork)	In progress	In progress	Needed	Needed	innovative technologies that include monitoring and education components
	Willow	All	Temperature, pH (basin-wide), bacteria (Balm Fork)	In progress	In progress	Needed	Needed	Raise public awareness of NPS pollution in urban situations
APPROVED	Willow	All	Temperature, pH (basin-wide), bacteria (Balm Fork)	In progress	In progress	Needed	Needed	Low cost restoration of degraded wet meadows
	Willow	All	Temperature, pH (basin-wide), bacteria (Balm Fork)	In progress	In progress	Needed	Needed	Education component should focus on its use as a demonstration project; prevent and control introduction of pesticide residual into ground / surface waters; include monitoring/ education / demonstration; address reduction of: stream temperature, sediment, nutrient, bacteria.

			Eastern	Region: Gran	de Ronde			
TMDL				Progra	mmatic Activity	9 Funds	Primary 319	
Submissn Date	Sub-Basin	Watershed	Listed Parameters	Assessment	TMDL Development	Planning	Implementat ion	Project Need
1999	Upper Grande Ronde	All watersheds	Temperature, sediment, habitat, D.O., pH, algae, nutrients, bacteria, flow				Needed	Reduction of stream temp., sediment, nutrient, and bacteria. Increase late season flow. Riparian Restoration. Flood plain reconnection. Education and outreach related to listed parameters.
2000	Lower Grande Ronde	All watersheds	Temperature, Flow, habitat, sediment,		Needed	Needed	Needed	Same as above
2000	Wallowa	All watersheds	Temperature, Flow, habitat, sediment, bacteria, pH		Needed	Needed	Needed	Same as above
2000	Imnaha	All watersheds	Temperature, habitat, sediment,		Needed	Needed	Needed	Same as above

			Easte	rn Region: Ho	od Basin			
TMDL			Listed	Prog	rammatic Activity N	leeds for 319 Fun	ds	Drimany 310
on Date	Sub-Basin	Watershed	Parameters	Assessme nt	TMDL Development	Planning	Implement ation	Project Priorities
2000 Hood River			Temperature	Done	In progress	In progress	Needed	Tmdl implementation and reduction of stream temperature, riparian vegetation and habitat enhancement, increased- stream flows
	All watersheds	Toxics	In progress	Needed	Needed	Needed	Prevent and control introduction of pesticide residual into groundwater and surface waters, monitoring, bmps or demonstration components.	
			Sediment, nutrients pH bacteria	Needed	Needed	Needed	Needed	Monitoring, education/demonstration strategies, innovative technologies, raising public awareness about nps pollution in urban, agricultural, or forest
			Temperature	In progress	In progress	In progress	Needed	Tmdl development and reduction of stream temperature - riparian vegetation and habitat enhancement, increased in- stream flows
2001	Mile Creeke	All watershade	Sediment	In progress	Needed	Needed	Needed	Same
2001		All watersneds	Toxics, nutrients pH bacteria	Needed	Needed	Needed	Needed	Projects that include monitoring, education/demonstration strategies, innovative technologies, raising public awareness about nps pollution in urban, agricultural, or forest
		Oregon's	2001 Nonpoint S	ource Progr	am Annual Ro	eport		41

			Eastern F	Region: Desch	utes Basin			
TMDL Submissi on Date	Sub-Basin	Watershed	Listed Parameters	Prog	rammatic Activity No	Primary 319 Project Priorities		
2002			Temperature	In progress	Needed	Needed	Needed	Projects that address collection of data, assessment of conditions, education/demonstration strategies
	Upper Deschutes	All watersheds	Sediment & Turbidity	Needed	Needed	Needed	Needed	Projects that address collection of data, assessment of conditions, education/demonstration strategies
			Ph Dissolved oxygen	Needed	Needed	Needed	Needed	Projects that address collection of data, assessment of conditions, education/demonstration strategies
2002	Little Deschutes	All watersheds	Temperature	In progress	Needed	Needed	Needed	Projects that address collection of data, assessment of conditions, education/demonstration strategies

			RIORITILS, IT	2001				
Area	319 Priorities	GWMA or Assessment Area	Characterizatio n Complete	Implementati on Documents	Milestones	Problem	Assessment	Projects Required By Action Plan
Priority Lower Umatilla Basin	 (1) On-site system demonstration projects, (1) Evaluation of nitrate leaching from food processing waste water land application during winter, (2) Evaluation of differential nitrate leaching due to irrigation water mgt., nutrient application, and/or crop rotation. 	Groundwater Management Area	1995	 (1) 12/97 Action Plan, (2) MOA between SWCDs, ODA, & DEQ, & (3) Action Plan Implementati on Work Plan 	Annual Reports plus Evaluations at 12/2001, 12/2005, & 12/2009 & every 4 yr. thereafter	Nitrate	Initial assess. complete, bimonthly sampling continuing	 Develop options for local govt. to address cumulative impacts of septic systems Determine where septic system loadings could create WQ problems based on development and hydrogeology (3) Determine how to incorporate WQ concerns into development proposals

Table XII. GROUNDWATER-RELATED 319 PRIORITIES, FY 2001

Northern Malheur County (Owyhee & Malheur Basins)	(1) Bi-monthly sampling of monitoring well network, (1) Educational programs to teach irrigation mgt. practices to farm owners and workers, (2) Evaluation of differential nitrate leaching due to irrigation water mgt., nutrient application, and/or crop rotation, (2) Research economic viability of converting from flood irrigation to drip irrigation for lower-value crops	Groundwater Management Area	1990	6/91 Action Plan	Informal annual reviews and trend analysis of first 5 yr. of data due in 1996	Nitrate	Initial assessment complete, bimonthly sampling continuing	 (1) Assist OSU Erg Exp. Station in their research projects (pg. 51 of Action Plan), (2) Assist OSU Extension and SCS in their educational and demonstration projects (pg. 52-54 of Action Plan) 		
Upper Willamette basin	Public education an specific g Outreac Hydrogeologic i Investigations	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			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. The Willamette is currently the focus of TMDL studies and is in the process of developing a Water Quality Management Plan					
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TMDL limited streams, where reduced input from stormwater is needed	Evaluation of potential impacts of stormwater injection and or infiltration on groundwater quality Analysis of pretreatment options and innovative technologies Development of BMPs for injection and infiltration of stormwater which ensure protection of both groundwater and surface water. Public outreach and community involvement projects	In areas of TMDL limited streams, where reduced input from stormwater is needed, communities are looking for alternative methods of stormwater management. Some of these practices, including infiltration or injection into the subsurface, have the potential to impact groundwater quality. Projects are needed that focus on stormwater management practices that will assist in enhancing natural groundwater recharge, while ensuring that pollutants associated with stormwater do not impact groundwater quality. These projects could be tied to the Upper Willamette Valley priority groundwater projects or integrated into the TMDL priorities.