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Region 10 Nonpoint Source Program Evaluation

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Executive Summary

In Spring of 2000, U.S. EPA Region 10 decided to undertake an evaluation of nonpoint source programs in the Pacific Northwest to (1) identify major strengths, weaknesses, and needs of nonpoint source programs in the Region and to (2) identify opportunities to improve program performance in achieving environmental results. Region 10 program managers feel such an evaluation is timely for two basic reasons: (1) Alaska, Idaho, Oregon, Washington, and the Pacific Northwest Tribes face mounting pressures to address nonpoint source pollution problems, especially through TMDL development and recovery planning for salmon, bull trout, and other threatened and endangered aquatic species and (2) the states have over ten years' experience with nonpoint source management programs, and recently developed and submitted to EPA their Year 2000 Nonpoint Source Program Plan Updates.

This report, prepared by Ross & Associates Environmental Consulting, Ltd., summarizes the results of the first step in this program review. It includes ideas and perspectives recorded during interviews and small group discussions with approximately 70 nonpoint source program managers, community leaders, and grantees from Idaho, Oregon, and Washington. Participants represented state and federal environmental, resource and land management, and other agencies; local government agencies and special districts; regional and local watershed management efforts; universities; and other public and private organizations.

The report describes and develops the following major findings and recommendations related to strengthening the nonpoint source program.

1. Continue to refine a program strategy that better integrates nonpoint source pollution control with watershed-level problem-solving.

2. Improve interagency communication, coordination, and collaboration to align priorities and strengthen support for watershed efforts.

3. Improve communication and coordination among clean water programs within environmental agencies to focus on priority watershed protection and restoration activities.

4. Build strong programs and capacity at the local, watershed level where most services are delivered.

5. Strengthen mechanisms for outcome-based management, including setting clear environmental goals, developing environmental performance measures, and applying lessons learned to improve programs.

6. Conduct targeted monitoring and evaluation to improve understanding of the effectiveness of BMPs and management strategies and share this knowledge widely.

7. Create opportunities for watershed residents and other nonpoint source program leaders to share ideas and information about their project successes and lessons learned.

8. Clarify and simplify Clean Water Act 319 grant priorities and procedures.

Introduction

Nonpoint source pollution issues are becoming increasingly important in watershed and water quality management. Even as environmental agencies work to control the discharge of pollutants from discrete sources into our waterways, some land use practices in forestry, agriculture and urban environments continue to degrade water quality, damage watersheds, and place sensitive species at risk. In recent years, greater agency focus, public interest, and Congressional scrutiny has been placed on efforts to control nonpoint (or diffuse) sources of pollution. The Pacific Northwest states of Alaska, Idaho, Oregon, and Washington and the Pacific Northwest Tribes are under enormous pressure to address nonpoint sources, including through watershed planning efforts (e.g., such as Clean Water Act Section 303(d) Total Maximum Daily Loads (or, TMDLS) and state-sponsored activities); and to address the listing under the Endangered Species Act (ESA) of several salmon and bull trout species as threatened or endangered. States have over ten years' experience with nonpoint source management programs, and recently developed and submitted to EPA their Year 2000 Nonpoint Source Program Plan Updates. In addition, states have recently updated their programs to protect against nonpoint source pollution in coastal waters under the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA).

Finding itself at a critical juncture in its history, U.S. EPA Region 10 decided in the Spring of 2000 to conduct an evaluation of area nonpoint source programs to (1) identify program strengths, weaknesses, and needs and (2) identify opportunities to improve program performance. EPA contracted with Ross & Associates Environmental Consulting, Ltd., a Seattle-based environmental consulting firm, to conduct the first step in this evaluation, a review of nonpoint source programs in Pacific Northwest states.

Report Overview

A brief overview of nonpoint source programs in the Pacific Northwest is presented below, followed by a summary description of the methodology used to gather information and develop findings. The balance of the report is organized around several broad themes or directions that emerged during the interviews. Each thematic section of the report contains specific observations from the interviews, as well as possible directions or actions that could be taken to address related issues. The report concludes with a series of key recommendations that may be implemented to enhance nonpoint source programs at the state and federal levels. These recommendations are presented for the consideration of EPA, state, local and other nonpoint source managers and participants. EPA and the report authors hope that the recommendations spur a vigorous and strategic dialogue that results in collective agreement as to where program changes and improvements would be desirable.

This report is not intended to be an exhaustive review of nonpoint source programs in the Pacific Northwest. Rather, it is a distillation of key observations and ideas of nonpoint source leaders from around the Pacific Northwest. As such, the report offers a snapshot of an environmental program that is currently undergoing much change and facing new challenges; it is a beginning, not an end.

Nonpoint Source Program Overview

In 1987, recognizing the importance of nonpoint source water pollution, Congress amended the Clean Water Act (CWA) to add Section 319, Nonpoint Source Management Programs. The new section called on the states to 1) assess and identify navigable waters that could not reasonably be expected to attain or maintain applicable water quality standards without additional nonpoint source controls and 2) prepare state management programs to address nonpoint sources of pollution. The state management programs are expected to identify best management practices (BMPs), and identify programs and funding sources to achieve implementation of BMPs. The Act further authorizes EPA to make grants to states to implement their management programs.

States prepared their first management plans within the first few years after enactment of the CWA amendments. State nonpoint source management plans provided the impetus for three important areas of work:

- a long-term effort to coordinate the nonpoint source pollutant control efforts of a variety of federal, state, and local agencies, including development of memoranda of understanding to clarify roles and responsibilities related to nonpoint source pollution;
- an ongoing assessment of the adequacy of state laws governing nonpoint source pollution; and
- efforts to identify and fund the most effective nonpoint source pollution control projects.

Activities that generate nonpoint sources of pollution are regulated by many different governmental agencies. In addition, there are many federal and state public lands management agencies responsible for management practices that may generate nonpoint sources pollutants. Coordinating the efforts of these agencies and effectively using 319 grant funds has been the focus of the nonpoint source program. In 1997, EPA and states agreed upon a process for revising and upgrading their nonpoint source management plans. All of the Region 10 states are in the process of or have completed upgrading their nonpoint source management programs.

The Act specifically directs that states, to the maximum extent practicable, develop and implement management programs on a watershed-by-watershed basis. The watershed focus has become even more important in recent years as endangered species listings and court-ordered schedules for developing total maximum daily loads (TMDLS) concentrate pollution control efforts around watershed-based problem solving.

As well, coastal states have also recently updated their coastal zone management plans, in accordance with CZARA Section 6217. In these plans, states are to describe how they will bring together authorities and capabilities from coastal zone management and water quality agencies to jointly address coastal nonpoint source pollution problems. As with Section 319, coastal nonpoint source program efforts are to focus on implementing specific management measures to curb nonpoint source pollution. Interagency coordination (among federal, state, and local agencies) is a likewise a critical element of coastal nonpoint source programs and program efforts.

Methodology

This report summarizes initial findings from the nonpoint source program evaluation. This evaluation was conducted in the states of Washington, Idaho and Oregon.[1] The report is based primarily on interviews with key nonpoint source program leaders, implementers, and innovators in the Pacific Northwest; and a review of key agency documents, including the three states' Nonpoint Source Program Updates (for the year 2000).

To prepare for the interviews, project participants were asked to review a set of "food for thought" questions focused on the following key research issues: (1) nonpoint source program goals and priorities; (2) program and project evaluation; (3) integration and coordination across programs and jurisdictions; (4) grant project selection and evaluation; (5) roles and responsibilities; and (6) program evolution/ key future directions. The interview questions are included at the back of this report as Appendix A.

Almost 70 individuals representing city and county governments, state/regional conservation districts, watershed groups (such as watershed councils in Oregon, Basin Advisory Groups and Watershed Advisory Groups in Idaho), state and federal agencies, and other nonpoint source interests were interviewed for the effort.[2] Participants included program managers at all levels of government as well as grant recipients. A full list of project participants is included at the end of this document as Appendix B. Interviews lasted one to three hours and were conducted in small-group or one-on-one sessions. Project participants were informed that their comments would be presented anonymously. This practice was followed to encourage candid observations and dialogue.

Refining A Nonpoint Source Program Strategy

EPA and the State agencies' nonpoint source programs have evolved significantly in the last decade. In the early years, nonpoint source programs worked to identify water quality problems, design pollution control measures (also called management measures or Best Management Practices (BMPs)), and implement those BMPs through site-specific projects and activities. Knowledge gained through implementing the program over the last ten years, along with the key environmental challenges facing the Pacific Northwest today, reinforce the importance of nonpoint source management.

EPA and the states are currently focused most strongly on water quality challenges related to endangered species recovery planning and Clean Water Act Section 303(d) impaired/threatened waters listings and TMDLs. If current trends continue, these water quality challenges will likely grow and become more complex over time. In the majority of cases, nonpoint sources of pollution are the most significant cause of water quality impairment, and nonpoint source management is therefore a critical component of any management strategy to address problems. At the same time, nonpoint source problems and programs are but one piece of

[1] Due to time and resource constraints, nonpoint source programs in Alaska were not included in this effort.

[2] No tribal representatives participating in or implementing nonpoint source programs were interviewed in this project. We recommend that follow-on work address this omission.

an interrelated set of watershed management needs and programs that must also address point sources, habitat protection and restoration, water resource management, and flood protection in an integrated way.

To meet these complex challenges, nonpoint source programs today work in partnership with other agencies and individuals to address broader-scale environmental challenges, emphasizing programmatic coordination as much as project implementation. Close cross-program and interagency collaboration and integration of activities is essential to success now and in the future. At the same time, nonpoint source programs must be able to clearly identify and carry out their specific piece of the overall management scheme.

Another key element of today's nonpoint source programs is the delivery of services—education, technical assistance, restoration projects, regulation—at the local, watershed level. The success of nonpoint source management in the future rests upon the ability to build long-term capacity to administer nonpoint source programs in local governments, conservation districts, and other entities involved in primary service delivery.

Watershed approaches to water quality and watershed management are now widely accepted, and most nonpoint source programs are implementing these approaches to one degree or another. These geographically-based efforts tend to be highly coordinated and interactive processes that engage environmental regulators, landowners, managers, and citizens in both dialogue and action around a specific environmental challenge. Organizing and focusing efforts in a specific watershed provides a logical way to define a discrete set of problems in a defined geographic area, determine how to integrate and trade off watershed goals (water quality, habitat restoration, water quantity, growth), and coordinate the actions and services of multiple agencies in a real setting.

Working at the watershed level holds promise for successfully addressing important water quality problems in the Pacific Northwest and, at the same time, poses new policy and organizational challenges for participating agencies. To effectively participate in these watershed-level efforts around the region, nonpoint source programs need long-term program strategies and tools to help (1) focus program activities on priority needs, (2) establish clear program roles (both within their agencies and in relation to others), (3) set priorities and allocate resources most effectively (both across programs/activities and in different geographic areas), and (4) evaluate program effectiveness and improve over time. A key challenge for nonpoint source programs is to develop and strengthen the mechanisms that aid in *managing for environmental results.*

As states work to strengthen their nonpoint source program tools and strategies, it may be important for them to consider needs at different scales. For example, state agencies involved in watershed/resource management may require coordinating mechanisms at the state level to set statewide priorities and coordinate policies and programs; at the same time, watershed efforts may require different means of coordinating federal, state and local agencies at the basin or subbasin scale to collect information, plan, and take action on specific problems.

Perspectives

C Nonpoint source program staff recognize that they play an important role in watershed restoration efforts. Many question, however, whether they have the right program "tools" to be effective.

- Pacific Northwest nonpoint source programs have not yet made a complete transition to providing watershed-level program support. Many people still see EPA's or the states' equivalent [Washington Department of Ecology (Ecology), Idaho Division of Environmental Quality (IDEQ), and Oregon Department of Environmental Quality (ODEQ)] nonpoint source program as a Clean Water Act Section 319[3] "grant delivery" program. To be effective participants in watershed approaches, nonpoint source programs need to better define and communicate the ways in which they contribute to watershed restoration and protection on a broad scale (i.e., do they provide funding for implementing others' (TMDL or ESA recovery) strategies; support watershed planning; support innovative/demonstration projects or BMP development; or build local capacity?).

- Nonpoint source programs across the Pacific Northwest share clearly defined environmental goals (such as (1) restoring water quality/attaining water quality standards, (2) conserving threatened and endangered species (especially salmonids and other aquatic species), and (3) protecting human health) with other key clean water programs and initiatives (e.g., TMDL development and ESA recovery planning). Several other agency programs (e.g., TMDL or Wetlands) are also organized around the same goals and similar watershed approaches. However, coordination between the nonpoint source program and these other programs at state agencies and EPA is not as effective as it should be.

- Nonpoint source programs across the Pacific Northwest also have other goals, such as (1) promoting better interagency cooperation and coordination; and (2) increasing landowner awareness of the impact of their activities on water quality and, more broadly, watershed health. These goals indirectly support the achievement of environmental protection and improvement and should also be integrated into a nonpoint source program strategy.

Possible Directions

- State and EPA nonpoint source program managers should work closely with other key program managers in their agencies (e.g., TMDL programs, groundwater management programs, stormwater programs) to identify opportunities to improve cross-program coordination and interaction. The program managers should consider jointly issuing a memorandum or statement to their staff that lays out these program intersections. Effective models of cross-program cooperation should be publicized, learned from, and rewarded.

- States and EPA should engage in an ongoing strategic dialogue to judge the sufficiency of their agencies' nonpoint source program strategies/approaches, particularly in the context of the watershed approach. Important issues to be covered may include:
  (1) the scope and priorities of the nonpoint source program and program activities;
  (2) the nonpoint source program's relationships with other agency programs (especially related to key program drivers such as TMDL development or species recovery planning);

[3] Section 319(h) of the Clean Water Act established a grant program to provide federal funds for the implementation of nonpoint source pollution control projects to help protect or improve water quality. These grants are often referred to "319 grants."

(3) the strength of relationships and the effectiveness of the division of labor with other state and federal agencies;
(4) strategies to develop strong, sustainable, local watershed programs;
(5) the ability to manage for environmental results and measure environmental progress, including the adequacy of monitoring and evaluation of BMPs/strategies;
(6) the adequacy of communication and information exchange about program lessons learned and BMP effectiveness;
(7) appropriateness of program and project funding priorities, as well as potential enhancements to grant funding procedures.

These issues are further developed in the sections below.

Interagency Communication, Coordination, and Collaboration

Coordination of agency priorities and resources at the federal, state, and local government levels is a cornerstone of the nonpoint source program. Effective coordination, communication, and priority-setting at the policy, program management, and local levels allows the resources of these governments to be brought to bear on problems in a cumulative and complementary manner that maximizes real environmental results in the face of limited resources. Coordination and communication must occur locally within a watershed to ensure that: (1) funding sources are identified and used; (2) complementary projects are implemented; and (3) all appropriate technical expertise can focused on a given problem. The coordination of state and federal agency managers at the state level improves technology- and knowledge-transfer opportunities, enables the dispatch of state and federal funds to priority watersheds, and provides state-level guidance to individuals and groups engaged in watershed analyses and restoration activities.

Perspectives

C While all the nonpoint source program participants - state, federal and local—recognize the importance of interagency coordination at state *and* local levels, some partners feel it is not working as well as it should. Many indicated that more could be done to align priorities, especially between state and federal agencies, to set the stage for close coordination at the watershed level.

C States would like EPA to take a stronger, lead role in coordinating among Federal agencies on water quality and nonpoint source issues. Some states particularly asked for a more assertive EPA role in helping states achieve compliance among other Federal agencies on water quality consistency issues.

C Existing tools for program coordination are helpful but need to be refined and expanded. Tools such as Unified Watershed Assessments, Federal Coordinating Teams, and the USFS-BLM Protocol for 303(d) Listed Waterbodies, all of which are part of the Clean Water Action Plan process, have helped align federal and state priorities and target resources to priority watersheds. The Oregon Plan is an example of a state-wide planning strategy that also helps set and communicate state priorities and align resources. Barriers to coordination include:

- **S** the number of watershed assessment processes available to address watershed issues on different scales and with different objectives (for example, one participant noted that in his state, there are approximately 40 such watershed assessment tools in use);
- **S** differing agency missions, directives, and authorities that have to be met while attempting to coordinate efforts; and
- **S** a historical lack of robust coordination and communication between environmental/resource management agencies and the Army Corps of Engineers.

C A number of participants expressed concern about the lack of trust or respect that exists among the agencies.

C Staff at some agencies feel they are not getting adequate support from their counterparts at other agencies, or that these individuals do not understand their own program needs, capabilities, and limitations.

Possible Directions

C Agencies should consider whether interagency coordination efforts are adequately staffed and continuously addressed within their states. Working mechanisms to coordinate across agencies need to exist at several different scales/levels of government. Suggestions for improvements include:

- **S** establishing a statewide interagency team to provide ongoing coordination support, identify agency points of contact/liaisons for coordinating agency NPS programs, and recruit/involve other agencies such as the Army Corps of Engineers;
- **S** consolidating, prioritizing, and recommending nonpoint source program tools for the state (e.g., coordinating and integrating different agencies' watershed assessment and planning tools to avoid the "who's in charge" problem described above);
- **S** building interagency teams to address particularly challenging issues, such as strategies addressing particular sectors/source types; and
- **S** establishing geographically-based multi-agency teams and regular communication channels to coordinate work on priority watersheds. Depending on the circumstances, such watershed teams may focus on the larger, basin scale (e.g., Rogue River) or a sub-basin scale that is more tractable for local watershed management.

(NOTE: This model has already proven to be effective in several forums, including Oregon's Unified Watershed Assessment Group, an interagency state-federal-Tribal group that was worked since 1998 to develop and use criteria to determine watershed conditions for purposes of restoration.)

C Further development of policies and tools that support a high level of cooperation for solving watershed level problems are widely viewed as extremely valuable. Areas to be explored may include:

- **S** developing information about services/roles/funding for use at the watershed level; and
- **S** establishing policies and models that support interagency coordination in watershed efforts and watershed-level decision-making. Agencies should also strive to avoid multiple watershed planning/assessment exercises, driven by different laws and programs, in the same watershed.

C The agencies should maximize their effectiveness by relying on each other's expertise, rather than hiring internal experts to review the work of others. Efforts to increase understanding of other programs' needs and build complementary capabilities will enhance trust and respect.

Defining State Nonpoint Source Program Roles

State nonpoint source programs' roles and responsibilities have changed since the program's inception and will likely continue to do so in response to an increasing emphasis on watershed-level problem-solving. In the past, state nonpoint source programs emphasized administering the 319 grant program and implementing site-specific projects. Today, state nonpoint source programs are asked to work more broadly, and more actively, in a watershed context and are being called upon to coordinate closely with other state programs and funding mechanisms (such as Washington's Centennial Fund for Clean Water or the Oregon Watershed Enhancement Board).

In recent years, several Pacific Northwest states have shifted their nonpoint source program focus to regional[4] state offices where staff are engaged in directly, and on an ongoing basis, intensive watershed processes. Should nonpoint source programs focus their resources at the regional office level? How can the program leverage the agency's other resources (e.g., monitoring program expertise) in a given watershed? As the nonpoint source program matures and as nonpoint source issues become more pressing and demand greater staff time and resources, state agencies in particular will need to rethink their roles and refocus their resources to provide the most effective array of services and support to their constituents and partners at a local level.

Perspectives

C EPA would like Ecology, IDEQ, and ODEQ to act as "state leaders" on nonpoint source activities, given that they are the designated water quality agencies in the Region. However, many state environmental agency staff prefer to act as interagency facilitators or coordinators and feel it is inappropriate for them to assume strong leadership roles given that they directly oversee or implement only a limited number of the projects and programs that address nonpoint source problems.

C Many agencies express the need for someone to provide the leadership to coordinate the various nonpoint source programs at the state level; ideas about <u>where</u> the leadership should come from vary. There is some feeling that either the state environmental agencies, the governor's offices, or EPA should provide the leadership for interagency coordination.

C Some (but not all) state and federal partners look to the state agencies to set, through Nonpoint Source Management Plans (and 303(d) lists), statewide strategic directions for watershed protection, restoration and monitoring programs.

[4] For purposes of this report, the term "state office" or "headquarters" refers to state agency headquarters offices in Boise (IDEQ), Lacey (Ecology), and Portland (ODEQ). Each of these agencies has several "regional" or satellite offices located elsewhere in the state.

- Some partner agencies would like the state environmental agency to communicate EPA's regionwide vision and a set of priorities for watershed protection and restoration.

- Nonpoint source program staff in states' regional offices are given considerable latitude to define their own program roles. Some regional staff restrict their role to processing 319 grant applications; others provide direct technical assistance or help 319 grant applicants identify projects, develop grant proposals, coordinate with other community and agency leaders in the basin, locate matching funds, recruit grant cooperators, and adjust project activities. Although many regional office staff greatly value the flexibility they are given to define their roles, others are unclear about their responsibilities and would appreciate more specific guidance, direction, or feedback from the state office project manager(s).

- In some cases, there is substantial confusion on the part of watershed community leaders and nonpoint source program staff at other agencies as to the respective roles of state nonpoint program staff at the regional vs. headquarters offices.

- Community leaders cannot always access the full range of environmental agency expertise at the local level. As a result, community leaders who need help "turning our watershed assessment into on-the-ground projects" and developing watershed monitoring programs become frustrated when their regional office points-of-contact are unable to deliver the necessary support. As a result, these community leaders sometimes feel compelled to make strategic decisions with incomplete or inaccurate information.

- Several grant recipients express frustrations in their inability to obtain important data about a local watershed from other state agencies. They want state environmental agencies to use their influence to persuade other state and federal agencies to share such data with local (non-agency) watershed leaders.

- Some state nonpoint source program managers identified funding instability for their own programs as an impediment to building a long-term program, planning, and retaining staff.

Possible Directions

- State nonpoint source programs offices should consider convening a group of headquarters and regional office staff to discuss and delineate their agencies' nonpoint source program responsibilities, at the headquarters and regional office levels. They should make this information widely available, especially to new nonpoint source program staff, watershed community leaders, and other potential program partners and participants.

- Nonpoint source programs should examine how their program resources are being allocated (to which offices, in support of which activities) and adjust them to focus on areas of greatest importance and need, as determined in the exercise above. Through such a process, state nonpoint source program

managers can better identify specific program capacity needs and then approach agency management, EPA, or the legislature to fill any funding gaps.

C State nonpoint source managers should invite their counterparts at EPA and other federal agencies to participate in statewide activities (e.g., 319 grant selection), especially where they can provide strategic advice or broader (e.g., federal or multi-state) perspectives.

Building Capacity at the Watershed Level

Local leadership is a critical element of nonpoint source pollution control and watershed restoration activities. Across the nation, local governments and citizen-led groups are spearheading efforts to develop and implement TMDLS, designing endangered and threatened species recovery plans, and working with their neighbors and friends to shape the future of their "backyard" watersheds. Local government and citizen leaders across the Pacific Northwest have already proven themselves to be leaders in watershed protection and restoration. This may be especially true because these individuals:

C have a vested interest in protecting their "backyard" watershed;
C can identify which watershed restoration projects are "politically and socially" viable in their communities;
C can recruit their neighbors to participate in watershed restoration projects; and
C will "lead by example" and act as a model neighbor (e.g., by implementing innovative projects on their properties).

Building local expertise and capacity is a priority for nonpoint source programs working to restore or protect watershed health. States and EPA can both play a role in ensuring that local program capacity and expertise is built.

Perspectives

C Nonpoint source leaders and program implementers at the local, state, and federal levels agree that locally-led watershed protection and restoration efforts are the most productive and effective models in the region. However, project participants also note that there is a strong need to enhance local knowledge by providing training (e.g., volunteer monitoring), technical and data management support, advice, and coordination support to local institutions.

C Unpredictable or insufficient funding to build and retain local capacity is a great weakness in the current nonpoint program structure. In too many places across the Northwest, local conservation district officers, regionally-based state and federal agency staff, and watershed community leaders rely on 319, CZARA 6217, or other short-term federal and state grants (or foundation monies) to fund critical staff positions. Local, state and federal agencies and/or state legislatures need to commit program resources to building a sustainable local leadership base that supports nonpoint source

program implementation. Clean Water Act 319 and CZARA 6217 grants, alone, cannot be expected to build and sustain critically needed local capacity.

C Local government and citizen leaders know best what kinds of water quality restoration projects will work in their watershed. Their involvement in 319 (and other) state grant project selection efforts is widely viewed as essential to success.

C Local/regional programs administered by county governments or conservation districts have the opportunity to establish relationships and build trust with landowners. This trust is critical to the success of educational efforts, voluntary BMPs, and restoration projects on private land. Many nonpoint source programs in more rural areas rely largely on voluntary efforts for their success.

Possible Directions

C State agencies should work with watershed leaders to identify and address their specific training, data management, coordination, or funding needs.

C Nonpoint source program staff from other agencies should be actively recruited to participate in local watershed protection and restoration activities (e.g., designing and recommending projects for funding, developing monitoring programs, analyzing results). Ecology, IDEQ, and ODEQ can help make this happen by engaging those agencies in project development, implementation, and support, and by encouraging local grant review panels to consult with local experts from other agencies. The nonpoint source program managers in the state offices and EPA should likewise engage their counterparts in statewide activities, such as statewide reviews of 319 grant applications.

C State agencies should continue to actively engage local watershed experts in 319 (and other) project selection and management. Field office staff should strive to recruit a strong mix of technical experts and community leaders to participate on these review panels. Where possible, partner state and federal agencies should also participate in these activities.

C Local agencies, states, EPA, and the other federal partners involved in nonpoint source projects in the region should explore ways to provide regular, predictable funding support for watershed councils, conservation districts, and other local agencies and organizations that deliver on-the-ground nonpoint source management services.

Managing for Results and Measuring Environmental Performance

EPA and the states are keenly interested in ensuring that nonpoint source programs manage for environmental results—that is, base their actions and priorities upon the achievement of environmental outcomes (e.g., specific water quality goals, such as temperature, nutrients or dissolved oxygen levels). Results-based management involves several key components: (1) setting specific (if possible, quantitative and measurable) environmental objectives (for, say, a watershed) through planning; (2) identifying and implementing the specific management

strategies that managers hope will achieve the desired objectives; (3) developing the evaluation measures and monitoring programs to measure environmental progress and the effectiveness of program strategies; and (4) learning through monitoring and evaluation and adjusting management strategies accordingly.

Managing and measuring for environmental results builds accountability into individual projects and nonpoint source program activities, and can help to build a case for maintaining (or enhancing) program resources. Perhaps more importantly, managing for results is a tool for learning over time and improving upon management strategies. Information on the success of projects and programs helps agencies (1) determine whether funding for a specific project or type of project should continue, and (2) evaluate program directions or strategies (e.g., organizing around watershed-level efforts).

Currently, EPA and the states have incomplete information about the success or impact of specific projects which they have funded through the nonpoint source program. Existing progress measures are insufficient to build a picture of individual project success or accountability, either because they focus on environmental changes that occur outside the scale of the project or because they focus only on specific activity measures. Baseline environmental data are often unavailable. Meaningful watershed-level performance measures are not well developed (or, at a minimum, widely known in Idaho, Oregon, and Washington). As a result, individual projects and statewide programs lack specific milestones and other metrics against which their short-term value and success can be evaluated.

Perspectives

- EPA wants to fund projects that have a lasting environmental benefit but does not always see project applicants linking their individual efforts to a wider watershed restoration vision. Explicit criteria linking project funding to priorities in watershed management plans (e.g., TMDLs or Washington's Section 2514 management plans) is a step in the right direction. Washington's nonpoint source grant funding through the combined Centennial Clean Water Fund process provides "credit" for projects identified through watershed planning processes.

- Most on-the-ground projects funded by EPA report on activity measures (e.g., streambank miles stabilized, miles of roads graveled) and, to a lesser extent, environmental changes/improvement. While environmental improvement is the ultimate goal of any nonpoint source program project and should be tracked carefully, it is also appropriate to evaluate individual project success in terms of related benefits and behavior changes that may constitute steps along the way to environmental improvement (e.g., impacts on regulations or ordinances, enhanced understanding of water quality problems or specific solutions, and local support for and/or participation in water quality improvement and watershed restoration projects).

- Some watershed restoration projects reviewed in this study lack clear, measurable environmental goals. Without such explicit goals, it is difficult to know which management strategies are most important and how much improvement is enough. Other watershed management plans and programs identify environmental goals and desirable management strategies, but lack models or other mechanisms for linking the two quantitatively. Ideally, management plans would project, through models or other

means, how specific BMPs and management plans are expected to achieve measurable environmental objectives. Since the ability to model or predict impacts from agricultural BMPs or revegetation is often lacking, an approach being used in some management efforts is to manage adaptively or iteratively: proceed with management actions, monitor results, and make management adjustments accordingly.

C Some participants pointed to water quality standards as the obvious and appropriate goals for watershed and nonpoint source management. Others felt that it may be desirable to develop environmental indicators and performance measures that better integrate water quantity, water quality and habitat protection objectives. A landscape ecology perspective may be a useful way to integrate water quality with other aspects of habitat quality, such as flow regimes, complexity and habitat interconnectedness. Some watershed management efforts are working toward such an approach that strives to integrate objectives traditionally under the purview of separate agencies.

C EPA does not feel that State environmental agencies have established robust program-level performance criteria and are therefore unclear whether state agencies are using program monies effectively. Ecology, ODEQ, and IDEQ need specific nonpoint source program performance measures related to 319 project selection and success as well as to interagency coordination and cooperation.

C Some participants observe that there is a gap between fundamental environmental objectives (e.g., achieving water quality standards) and much more specific activity measures and milestones intended to achieve those goals. Defining how state program activities are expected to achieve the goals (or not) or, alternatively, taking an explicitly iterative and adaptive approach to learning by doing, may be valuable.

Possible Directions

C State agencies should expect potential 319 grantees to explain (in their grant applications) how their proposed projects will lead to specific environmental improvement and whether it is an identified strategy in a watershed management plan. Grant application criteria should clarify that the value of any proposed project will be judged, in part, on how well it plans to address these issues.

C Ecology, ODEQ, and IDEQ should develop new progress measures related to environmental, regulatory, or other endpoints against which 319 grantees could regularly report. These agencies should work with individual grantees to identify appropriate performance measures for their projects and should be able to explain how the agency will use the information.

C Using the Coastal Zone Act Reauthorization Amendments (CZARA) model, state agencies (working in concert with EPA) could develop nonpoint source program performance measures, especially related to the disbursement of 319 monies and coordination with other agencies.

C Nonpoint source managers at both the state and watershed levels should continue to develop tools and techniques to connect decisionmaking, strategies, and actions to environmental results. Because of the

difficulty of estimating the impacts of management actions, further development of the "learning" or adaptive approach may be valuable.

C Environmental agencies should work with resource management agencies and local governments, perhaps in a pilot watershed, to define a set of environmental objectives and performance measures that better integrates multiple watershed management and habitat protection/restoration objectives.

Targeted Nonpoint Source Monitoring & Evaluation

Monitoring is critical to understanding which projects and strategies are successful, and to tracking the health of the water resource. Nonpoint source program participants generally believe that monitoring programs need to be bolstered in significant ways. However, because monitoring is expensive and resources are extremely limited, monitoring resources must be allocated strategically. Currently, information is lacking on the long-term environmental impacts of some nonpoint source control strategies and practices. In other cases, people perceive a lack of information, when, in fact, high quality information exists but is not widely and readily available.

How to accomplish meaningful monitoring is a particularly complex issue for the nonpoint source program. Some important BMPs and projects take many years to reach maturity and achieve full benefit, whereas most 319-funded grant projects are "completed" in one or two years. In the early stages of BMP establishment, surrogate measures of success (e.g. vegetative cover rather than water temperature for riparian restoration) may better reflect progress. It may often be difficult to show the quantifiable improvements in water quality conditions needed for TMDLS, sometimes for many years.

Perspectives

C Opinions expressed about the need for BMP effectiveness monitoring range from "We know everything we need to - just get them on the ground" to "We need much more information about BMPs to know how to use them effectively."

C As long as participation on the part of some important sources of nonpoint source pollution is voluntary, there will be a need for monitoring that clearly identifies sources. Historically, some source types (e.g., the agriculture community) have been reluctant to change practices and spend their own money on BMPs based on general data. They look for data that clearly show they are part of the "problem" before they will voluntarily install and maintain BMPs.

C Riparian restoration projects, particularly in arid environments, may take 10 to 20 years to reach maturity and provide maximum benefit. These projects are often efforts to reverse the effects of long-term impacts of grazing. Water temperature, in particular, may respond slowly to the changes these projects set in motion. In the mean time, surrogate or interim measures of environmental benefit may provide a better evaluation of project progress.

- Project participants at the watershed level often do not have the technical expertise to design monitoring and evaluation programs. They need technical assistance and training to develop, implement, and analyze the results from such monitoring programs.

- Many watershed and nonpoint source program managers report a lack of adequate resources to conduct monitoring. In particular, they report that available funds to conduct monitoring are typically linked to limited-term projects (e.g., Section 319 grant projects) and thus do not serve as a source of support for conducting long-term, ambient monitoring of basin conditions. 319 grants,, because they typically only last one or two years, may not be the right tool for measuring long term benefits of nonpoint source projects and programs.

- Several nonpoint source managers pointed to successful models in which experts at universities or technically sophisticated agencies conducted research on the effectiveness of BMPs/management strategies, and made the information widely available to managers. For example, the University of Washington Center for Urban Water Resources Management develops new and more effective ways to manage land use as it pertains to water resources through applied research. Its mission is "to help coordinate research and training needs on behalf of the region's water resource agencies, a broad range of local, regional, and Federal agencies" and is an excellent source of information for cities, counties and conservation districts who are managing nonpoint source pollution.

Possible Directions

- Nonpoint source program managers need to maintain a dialogue with TMDL program managers to identify ways to reconcile apparent differences between the quantitative nature of TMDLS and the difficulty of measuring the benefits of nonpoint source BMPs. These discussions could address 1) the potential use of surrogate measures of success, and 2) realistic time frames and expectations for measuring success at the watershed level.

- Statewide (or multi-state) teams of "experts" could be tasked with developing a targeted, strategic approach to filling key data gaps about the effectiveness of BMPs. They would evaluate the information available about BMP effectiveness and recommending direction for further BMP monitoring and evaluation. Considerations could include the state of knowledge about individual practices, but should also consider the likely importance of a practice in achieving environmental objectives (is a BMP especially effective at addressing a common pollutant problem; is a BMP likely to be widely accepted and used; is there good information about possible ancillary environmental impacts?) Such an approach should make use of existing institutions, such as university researchers in this area.

- EPA and the states should distribute standardized monitoring protocols and training materials designed by to help project participants at the watershed level.

- The states need to give careful thought to how to fund the monitoring that will be needed to assess long-term environmental benefits. Funding for long-term monitoring appears to be a problem at many

local agencies. Monitoring schemes and data interpretation need to reinforce realistic expectations about time frames for water quality improvement.

Sharing Project "Lessons Learned"

Information generated about the successes (or shortcomings) of individual nonpoint source program projects can be valuable in several ways. Individuals working to control nonpoint source pollution in their watershed(s) use information about other projects to determine what kinds of pollution controls will work best for them. Local conservation districts and others who provide technical assistance use this information to educate other landowners and to persuade them to implement specific nonpoint source pollution controls on their properties. Information about a project's success can also offer clues about what recruitment and communication approaches work best with specific community sectors or in a given geographic region. State agencies can point to project successes to build support for having robust nonpoint source programs at the local, agency, and statewide levels. Program staff also use this information to determine, generally, what kinds of projects they want to promote or support in future years.

Perspectives

- Several interviewees defined nonpoint source program success as, specifically, the wide dissemination and use of data resulting from a restoration effort. Others ranked a project's success according to its transferability.

- Landowners and local agencies often collect valuable information (be it through monitoring activities or anecdotal observations) about the BMPs they are implementing, but lack the means, resources, abilities, or technological means to communicate this information broadly to others.

- Information about BMP effectiveness and availability is communicated reasonably well within a conservation district, but is not effectively communicated across districts, agencies, or state lines.

- Each state articulated a need for a better information infrastructure to promote information sharing among all parties working with nonpoint source pollution.

- Some interviewees expressed concern about being asked to do more reporting (e.g., around "lessons-learned.")

- Several interviewees underscored the importance of improving communication with the public about project successes and saw this as an opportunity to build support for the nonpoint source program while educating citizens about their responsibilities and opportunities to promote clean water.

- A few successful approaches to information sharing were noted:
  - Washington State University Cooperative Extension works well with farmers and conducts research about the effectiveness of certain pollution control strategies.

- **S** In Idaho, the Annual Nonpoint Source Monitoring Workshop is highly regarded and well-attended. Many interviewees suggested it would be a good model for doing a similar workshop about "lessons learned" on nonpoint source projects.
- **S** The Agriculture and Water Quality Committee (based out of Spokane, WA but with members throughout the Pacific Northwest) hosts biennial conferences[5] that bring together individuals from the farming community, public and private agricultural service sector, university staff, government regulatory agencies, and environmental organizations to discuss important agricultural water quality issues and approaches or solutions to address them.
- **S** Oregon State provides consistent information through three guides for watershed assessment, habitat restoration and water quality monitoring. These are the Oregon Watershed Assessment Manual, Oregon Aquatic Habitat Restoration and Enhancement Guide and Water Quality Monitoring Technical Document.

Possible Directions

C States should consider requiring grantees to include in their 319 grant project closeout reports a section that summarizes successes and lessons learned about installing a suite of BMPs. These assessments could then be posted on an EPA (or state)-sponsored web site for others to browse.

C Some participants observe that a significant amount of BMP effectiveness data already exists electronically and recommend that one agency (perhaps EPA or Natural Resource Conservation Service) fund a project to create an electronic BMP effectiveness information clearinghouse with 'hyperlinks' to other web sites. The information clearinghouse web site should be easily accessed from (or part of) an existing (and well-used) agency nonpoint source program web site. This electronic clearinghouse could also be complemented by a paper "library" that includes copies of electronic and paper-only resources. (NOTE: Developing such an information clearinghouse may also help states identify those pollution control strategies that are not as well-understood. States could address those gaps by focusing research monies on particular BMP effectiveness studies.)

C Many grantees suggested that EPA sponsor nonpoint source workshops every 2-3 years to bring local leaders together to share "lessons learned" and foster relationships. Although opinions varied, most people felt the workshops should focus primarily on Pacific Northwest states (or on ecoregions across the West). The workshops should include local watershed leaders and cooperators, conservation district staff, and state and federal agency staff. These workshops could be scheduled in concert with (or as part of) other related efforts.

C States, EPA, and local watershed leaders should find ways to improve communication with the public about efforts underway to control nonpoint source pollution. Developing school curricula or public service announcements may be effective ways to do this. It was also suggested that a marketing firm be hired to conduct a nonpoint source pollution awareness campaign.

[5] The next conference is called "Agriculture and Water Quality in the Pacific Northwest" and will be held in Eugene, Oregon October 24-25. See http://www.agwaterqualitynw.org/ for more information.

Strategic Use of the 319 Grant Program

The Clean Water Act 319 grant program is small relative to the overall resources available through all of the nonpoint source partners. Still, it is still considered a leader/trend setter by other agencies and is a key source of funds for supporting nonpoint source projects. Therefore, 319 monies should be allocated in the most strategic manner possible. While site-specific water quality improvement is an immediate goal and critical NPS program driver, 319 grants can and should act as "catalysts for change" in a broader geographic and temporal framework. 319 funds may be targeted to address key gaps not served through other funding sources, or to demonstrate new approaches and techniques that might have wide applicability.

Careful assessment of the types of projects that may, in fact, provide the "greatest environmental improvement for the buck" is important. Projects that evaluate or demonstrate approaches or BMPs with a high potential for transferability may result in far greater benefits than the immediately obvious, 'on the ground' benefit of the approach or BMP being tested. Examples include:

- assessments that set the stage for changes in local land use ordinances (e.g., ordinances addressing stormwater, impacts of development, critical areas protection, or specific sources such as agricultural or forestry practices); or specific water quality standards (during the triennial review processes);
- monitoring efforts that define problems to help target necessary and appropriate BMPs;
- projects that can be used to leverage other local, state, and federal agencies' resources in the same watershed;
- demonstration projects (both BMPs and other strategies) that test and refine the viability of different approaches and methods for solving problems (e.g., low-impact development pilots; trading programs or pilot projects addressing wetlands, stormwater or habitat);
- projects that educate potential cooperators about the importance of clean water and their ability to protect water quality and other natural resources;
- projects that contribute to culture change, increase understanding of water quality problems and the need to correct them, or promote wide acceptance of practical, cost effective, environmentally beneficial ways of doing everyday work (road maintenance, farming, waste disposal, etc.); and
- other efforts to recruit local citizens to be advocates for clean water.

Perspectives

- States vary widely in the types of 319 projects they fund and the processes they use to determine the best projects. Many participants expressed a desire for a flexible evaluation process that recognizes the variety of efforts that can lead to environmental improvement.

- Sometimes the criteria and processes used to select 319 grant projects for funding may lead to a grants package that lacks strategic direction.

- Many 319 grantees appreciated that there is a grant program solely dedicated to funding water quality projects and do not want the criteria for 319 grant awards to be expanded to support other types of projects.

- Potential grant applicants often are unclear about the range of projects that are eligible for funding under the 319 grant program. They lack time to research and develop 'insider' knowledge about funding options for different types of projects. They may even be unfamiliar with the terms of art and 'bureaucratic shorthand' language used in program information.

- Some grantees observed that only grants involving "ESA-listed salmon or TMDLS" (or other severely affected areas) are awarded Section 319 funding. Others suggested that only first-time, "novel" projects seem to qualify for Section 319 funding.

- Although EPA is especially interested in awarding grants that focus on "implementation," the agency is willing to fund other projects if the applicant demonstrates that the project in question will lead to environmental improvements.

Possible Directions

- EPA should work with each state to identify in the 319 grant guidance (and fund) the range of projects they believe to have strategic benefit. Support could be targeted to key priority areas, or to fill gaps left by other funding sources. For example, 319 funds might preferentially support projects demonstrating new low-impact means of urban development, or support building local capacity. Grant guidance should clearly describe these types of projects.

- Agencies should identify individuals (at the state or regional office level) who can assist 319 grant applicants develop proposals that align with the program's strategic priorities and that access and integrate many funding sources. These individual(s) names and contact information should be in the grant application and guidance documents.

- The states may want to develop different grant criteria and evaluation processes for different types of projects. This may help ensure that strategically valuable projects are proposed and funded under Section 319.

- If a particular type of project or initiative is determined to be extremely important, a portion of the 319 grant funds for one or more years could be set aside for that purpose.

319 Grant Application Process

States have revised their 319 grant applications several times in recent years. Based on grant applicant feedback, Ecology, IDEQ, and ODEQ have all tried to clarify and simplify their 319 grant applications.

Although most of the changes have been welcomed, grantees note that the applications could be further improved (e.g., applications should more clearly define the criteria for project selection).

Perspectives

- As states work on improving 319 grant application processes, they hope to develop procedures that:
  - award grants on the basis of project merit (rather than clear prose);
  - reduce the amount of time it takes to fill out the grant application (so that grantees can focus on accomplishing project work); and
  - provide applicants with timely information about their application and grant status so that they can manage their activities and budgets most efficiently.

- Grant applicants in all three states commend the state agencies for updating and simplifying their 319 grant applications. Although they feel more work is needed (e.g., many are still confused by the application or feel that it is out-of-date), the new 319 grant applications are superior to the ones used in the past.

- Grant applicants appreciate the efficiency of consolidated grant applications, such as with Washington's Centennial Clean Water Fund, 319 grants, and State Revolving Fund. Applicants also appreciate the tips and guidance on putting together a strong application provided by some state agencies.

- Grant applicants want more time to put together quality projects and applications. They feel that there is too little time between when the 319 grant guidance is made available and when the applications are due.

- There are a plethora of funding sources with very similar, but not identical requirements. This confuses applicants and requires a lot of time to apply for grants.

- Grant applicants are often unsure of the criteria by which grants are selected.

- Some applicants feel that there is a lot of paperwork associated with 319 grants and feel the time required to fill out the 319 grant application (and reports) is not proportional to the size of the grant award.

- Some interviewees felt that there was duplication of effort in several 319-related processes, including:
  - application review and approval;
  - contract development; and
  - reimbursement processing.

- Grant applicants want more predictability as to when they can expect to hear back from the state about grant awards and when they can expect to receive grant monies. Timing of the grant can be particularly sensitive if the proposed project depends on the construction season, plantings, the

availability of a contractor or specialist, or other time-dependent variables. If the award money is received too late, the grant contract may need to be amended, thus creating more work for the applicant and nonpoint source program staff.

C Soil conservation districts, local watershed groups, and other grant recipients want the flexibility to adjust project activities to better meet landowner or environmental needs. Many grant recipients feel they have the expertise and knowledge to make modest adjustments to their projects but are concerned that the sponsoring agencies do not always understand or support their desire to adjust a project's emphasis. Grant recipients also indicated that they are less willing to make mid-course adjustments if the administrative burden (e.g., reporting, obtaining permission from the granting agency) is too costly.

Potential Directions

C Some interviewees suggested hiring a technical editor to update, clarify and streamline the grant application guidance.

C States' programs should provide grant applicants with examples of successful proposals and budgets. State nonpoint source programs should also identify specific staff who can help applicants develop "fundable applications." (NOTE: These individuals may be the same staff who are tapped to help applicants develop proposals that are aligned with the state's strategic priorities.)

C Several interviewees suggested that States could create a "one-stop" information and grant application center that has all grants pertinent to nonpoint source projects and information about selection criteria. For example, in Idaho, the Advantage group has put together a very popular three-ring binder with two page descriptions of grant programs available for local government.

C States programs should consider providing 319 grantees the opportunity to spend available match money before the actual receipt of the grant funds to ensure that the project is started in a timely manner. Another option would be for the state program to reserve monies to "seed" projects that need to be launched before 319 contracts have been fully executed.

C 319 grant applications should include a clause about the agency's willingness to renegotiate project schedules if grant awards are delayed.

C EPA and the states should look for opportunities to streamline the 319 grant review process and minimize the time lag between the grant application submittal and the grant award. This can be accomplished (in part) by including EPA in the grant review process at the state level and simplifying application review and processing procedures at the state agency and at EPA. A two-year grant cycle should also be explored.

C States should assess ways to synchronize with other funding sources (1) the criteria by which grants are awarded, (2) application due dates, and (3) reporting requirements (timing and content). In

Oregon, for example, 319 grant applications closely resemble (in format and content) the OWEB application – applicants noted, and appreciate, this convergence.

C States and EPA should look for ways to reduce duplication of effort in 319 grant processing and administration.

C State agency staff should consider developing a policy that clearly lays out what kind of information is needed, and under what circumstances, for grant recipients to modify a project's implementation strategy. States should work with EPA to identify ways to minimize the administrative burden associated with making "mid-course adjustments" on 319 (and other) grant projects.

Key Recommendations

(1) The next steps in this regional nonpoint source evaluation process should include parties not interviewed for this report due to time, resource and availability constraints. In particular, nonpoint source program managers and participants in Alaska should be contacted to determine if their experiences and issues are the same as those identified in this report. Tribal representatives—including participants and stakeholders in nonpoint management efforts and those tribes directly administering programs—should also be contacted. Coastal nonpoint source coordinators and others involved in CZARA implementation should also be included in ongoing efforts.

(2) State and EPA nonpoint source programs should maximize their efficiency by:

- **S** strengthening the dialogue with other key clean water program managers in their agencies to improve cross-program communication and build a strategic framework for cross-program coordination; and
- **S** delineating specific program responsibilities at the state and regional office levels.

To clarify these internal roles, it may be helpful to focus on specific projects or high priority geographic areas.

(3) State and federal agency managers should convene an interagency nonpoint source team to:

- **S** coordinate work and align priorities at both the state and watershed levels;
- **S** consolidate and recommend specific nonpoint source tools (e.g., how to combine or integrate different watershed assessment and planning tools efficiently); and
- **S** encourage participation by other, new partners (e.g., water resources agencies).

(4) State environmental agencies, EPA, and other state and federal partners should explore ways to help build long-term capacity at the local level (where most services are actually delivered) by:

- **S** finding ways to provide regular, predictable funding support;
- **S** identifying and addressing their training, data management, technical assistance and other needs; and

- **S** preparing resource guides that identify individual or agency points-of-contacts to support grant application development, BMP selection and implementation, research, monitoring, or other project needs.

(5) EPA, State environmental agencies, and local agencies/watershed managers should work to strengthen the mechanisms they use to manage for environmental results. Actions to consider include:

- **S** providing technical guidance and assistance on monitoring and evaluation methods at the watershed level;
- **S** finding ways to fund long-term ambient monitoring;
- **S** developing more rigorous means to link management actions to intended results, as well as to "learn through doing;" and
- **S** developing performance objectives and measures that are more integrated across water quality, water quantity, and habitat objectives.

(6) Statewide or multi-state teams should evaluate information about BMP effectiveness and recommend a targeted strategy for further BMP monitoring and evaluation to address key knowledge gaps.

(7) EPA, NRCS, or some other coordinating body should develop a "BMP effectiveness" information clearinghouse including both paper and electronic "BMP effectiveness" information, with hyperlinks to other web-based resources.

(8) EPA should sponsor a nonpoint source "lessons-learned" workshop every two to three years to bring together local leaders and agency staff to share experiences.

(9) EPA and state environmental agencies should identify in 319 guidance, and then fund, projects they believe to have strategic benefit.

(10) States and EPA should look for ways to streamline and improve 319 grant guidance and application processing, possibly in the following ways:

- **S** hire a technical editor to review the grant guidance;
- **S** designate agency points-of contact who can provide support to 319 grant applicants;
- **S** identify ways to reduce agency duplication of effort to ensure timely delivery; and
- **S** outline conditions under which grantees can make modest revisions to their project implementation strategies.

Appendix A:

Region 10 NPS Program Evaluation: Interview Guide

INTERVIEW GUIDE

Program Level

Setting Program Goal(s) and Priorities

- What are the biggest program drivers? Salmon recovery? TMDLS? Do you see those changing in the coming years?
- What clear programmatic goals and objectives (e.g., related to environmental results, partnership, learning and information transfer, public participation) have you set? How were these set and who was involved in the process?
- Is there an umbrella environmental goal (e.g., maximizing ecosystem functioning)?
- Are these goals the "right" programmatic goals? Are they focused on environmental results, ecosystem functioning, biological system integrity? Do they pertain to technical assistance, partnering, or public interaction activities?
- How are program priorities set when resources are limited? Do any of the programmatic goals "fall off the table"?

Integration and Coordination

- How are the NPS program goals coordinated with other programs' goals (either within your agency or across agencies)? Other state-level, regional, or federal water quality protection or salmonid recovery goals?
- How are NPS program activities coordinated with other programs' (e.g., TMDL or Wetlands) activities?
- In a typical watershed, how are NPS program activities aligned with other watershed management activities?

Evaluation and Adaptation/Learning

- How is the success of the NPS program judged (and by whom)?
- What performance measures are currently being used? Are those relevant, timely, and useful? What types of information are collected to assess program success?
- How is information collected to assess program success used to adjust program goals and priorities?

Project Level Questions

Project Selection and Evaluation

- How are projects solicited and selected for funding (via what process)? Who (i.e., which agencies or programs) is involved? How is the project selection process related back to the program goals/environmental results (if at all)?

- How are projects evaluated? What defines "project success"? Are all projects evaluated?
- Are project goals related to program goals? How does this happen?
- What information is typically collected at each project? Who collects the information? Is it entered into a database? Who sees the project-level information? Who uses this information and for what purpose?
- How is information from similar projects (e.g., similar BMPs being implemented) then "rolled up" to judge the effectiveness of the BMP? How is this information fed into program priorities/project selection?

Roles and Responsibilities

- Who are key actors/partners in NPS program management? (Describe respective roles) Are these the right roles? How effectively are the different partners carrying out these roles?
- How effectively are the different partners coordinating their activities/efforts? Problems with duplication or lack of coordination?
- Who is responsible for providing technical assistance to grant recipients? How is this accomplished?
- How well is the public involved in or informed of program priorities and project results? Who is responsible for making this happen?
- Is any one agency the lead for data/information warehousing or storage? Which one? How is this accomplished?

Program Evolution

- What is working/what isn't?
- Are grant monies apportioned appropriately (pass-through vs. in-house)?
- Does the grant disbursement process work?
- Is interagency and cross-program coordination sufficient to advance program goals? How should this be improved?
- Is adequate technical assistance being made available to grant recipients?
- Are there adequate opportunities to learn from and adjust to successes/failures of already-implemented BMPs? How can this linkage be strengthened (either when evaluating new applications or providing technical assistance to grant recipients and other landowners)?
- Key future directions?

Appendix B:

Project Participants

PROJECT PARTICIPANTS

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