



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
POLICY, PLANNING AND EVALUATION

MEMORANDUM

SUBJECT: PED's Final Report on Implementation of §319 Nonpoint Source Programs

FROM: Pam Stirling, Director
Program Evaluation Division

TO: Geoff Grubbs, Director
Assessment and Watershed Protection Division, OWOW

PED has prepared its final report on "Implementation of §319 Nonpoint Source Programs." (Two copies are attached.) We delayed completion of the report in order to allow ASIWPCA to respond to the report, but, as yet, we have not gotten any responses. We have carefully considered all the comments we received, and we have made revisions which we believe are appropriate. If you wish, we can provide you with a list of all the changes made since the draft report was first sent to the Regional Offices on July 24.

Unless you have objections, within a week we plan to send the final report to the Regional Office Division Directors, Branch Chiefs, and NPS Coordinators, as well as to ASIWPCA, the NPS contacts in the States we visited, and to others (within and outside EPA) who have requested copies. Finally, my staff will be returning State-specific documents (e.g., SMPs, grant proposals, etc.) to your office which we received from you when we began the study.

Thanks for giving us the opportunity to work with you and your staff in preparing this report, which we hope will prove useful as new directions for the §319 program are established. Please don't hesitate to call me if you have any questions or interest in other follow-up activities.

Attachments

cc: Tom Kelly, ORME
Dov Weitman, NPSCB
Stu Tuller, NPSCB

IMPLEMENTATION OF SECTION 319 NONPOINT SOURCE PROGRAMS

FINAL REPORT

November 24, 1992

**Program Evaluation Division
Office of Regulatory Management and Evaluation
Office of Policy, Planning and Evaluation
U.S. Environmental Protection Agency**

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EXECUTIVE SUMMARY

I. INTRODUCTION

Section 319 of the Clean Water Act Amendments of 1987 (CWA) required States to assess the impacts of nonpoint source (NPS) pollution on their navigable waters and develop four-year State Management Programs (SMPs) to implement best management practices (BMPs) to control these sources of pollution. EPA is responsible for approving these SMPs and for providing grants to States to assist them in implementing their NPS programs. By January 1990, most SMPs had been fully approved by EPA, and in August 1990, the first §319 resources were awarded to the States.

The Office of Wetlands, Oceans and Watersheds (OWOW) requested the Program Evaluation Division (PED) to conduct a mid-course assessment of the implementation of the §319 program. Goals of this study included evaluating the extent to which States have implemented §319, assessing EPA's role in assisting States, and providing information to national program managers to help set future directions for the program. To conduct its study, PED visited the ten EPA Regions and reviewed the §319 programs of ten States, including Massachusetts, New Jersey (paper review only), Pennsylvania, North Carolina, Wisconsin, Louisiana, Kansas, Colorado, Nevada, and Oregon.

II. FINDINGS ON STATE IMPLEMENTATION OF PROGRAMS

A. DEFINING THE NPS PROGRAM

A basic finding of this study is that **because of the diverse nature of NPS pollution, there is no single definition of a NPS program.** Rather than defining a single program to address NPS pollution, the majority of SMPs are agglomerations of programs which have responsibilities that may affect water quality. NPS programs tend to emphasize different types of programs based on the States' definition of NPS pollution and the types of NPS problems the States face.

Although lead NPS agencies (LNPSAs) are designated to implement §319, **authority for implementing SMPs is generally decentralized.** Most LNPSAs that are responsible for implementing SMPs and administering grants are actually sub-divisions of larger agencies and do not have authority to implement many programs or milestones identified in the SMPs. Many LNPSAs see their role primarily as a focal point for facilitating and coordinating the efforts of ongoing programs.

In addition to most State NPS programs being decentralized, **the extent to which States are institutionalizing their NPS programs varies widely.** Although the majority of the ten States do not have separate organizational units dedicated to implementing the State's NPS program, most States have used substantial §319 resources to support staff to implement their overall NPS program or specific projects. Several States have also used

§205(j)(5) and §201(g)(1)(b) resources to implement their NPS programs in addition to §319 funds, but none of the ten States has used §603(c) (i.e., State Revolving Fund) resources for NPS control. Additionally, five of the ten States have dedicated substantial resources of their own, beyond §319 grant matching funds, to implement specific NPS programs.

B. SETTING WATERSHED-SPECIFIC PRIORITIES

Section 319 directs States to implement their programs on a watershed-specific basis to the "maximum extent practicable," but the majority of the ten States do not have NPS programs oriented toward improving water quality on a watershed-specific basis. Programs identified in SMPs are often pollutant category specific and do not expressly address meeting water quality goals. The majority of States also do not yet appear to have well-developed mechanisms for ranking waters to determine NPS control implementation priorities. Four of the ten States, however, are focusing on implementing watershed-specific approaches to controlling NPS pollution.

C. IMPLEMENTATION OF STATE MANAGEMENT PROGRAMS

Although they contain a four-year schedule of implementation, State Management Programs generally cannot be used to gauge the States' progress in implementing NPS controls. Variable quality and quantity of milestones impede meaningful evaluation of progress in SMP implementation or in improving water quality. A few States also actively amend their SMPs on an annual or biennial basis to meet their changing needs. State annual reports on progress in meeting SMP milestones do not appear to be valuable for evaluating State performance, though they generally contain information regarding §319 grant implementation.

D. STATES' USE OF §319 GRANTS

Flexible guidance has enabled States to use §319 resources to address numerous NPS priorities. Although EPA grant guidance emphasizes that States develop balanced NPS programs, the guidance contains numerous priorities for States to address, which allows them wide latitude to choose what most meets their interests given the limited §319 resources available. States have taken this opportunity to use §319 resources to implement a wide variety of NPS activities. In the aggregate, the ten States have used over 20% of their §319 resources to conduct projects specifically to implement BMPs.

States concentrate their use of §319 resources to focus on different priority activities. Although, in the aggregate, the ten States have spread their use of §319 resources among several categories of activities, many States have emphasized different priorities by focusing their use of resources on implementing projects within one or two categories. Four States have used 50% or more of their §319 resources to implement a specific type of activity (e.g., BMP implementation, management, education, regulation development and implementation, BMP development, water quality assessment, evaluation monitoring, and

technical assistance). Determining whether §319 resources have been effectively used to balance States' NPS programs is not possible, and determining whether the use of grant resources themselves is balanced is generally not valuable.

E. MEASURING WATER QUALITY IMPACTS

The majority of States are making some effort to monitor the effectiveness of BMP implementation, though water quality impacts due to implementation of §319 are as yet unknown. Projects which implement BMPs generally include use of a mix of water quality monitoring or modelling tools. Seven States are also using §319 resources specifically to conduct water quality monitoring of other projects. Only one of the ten States has an evaluation monitoring program to measure water quality changes in all of its watershed projects.

F. INTERAGENCY COORDINATION

§319 has facilitated increased communication and coordination among agencies and organizations to develop and implement the State Management Programs. Many States emphasize the importance of cooperation in their SMPs, and five have advisory committees to assist in decision-making for using §319 grants. Local participation is also encouraged, especially through cost-sharing or grants, in several NPS programs. Some tension exist among agencies in determining their appropriate roles, which is not surprising given the number of agencies involved.

III. FINDINGS ON EPA'S ROLE

A. REGIONAL PROGRAM IMPLEMENTATION

Although most Regional Offices use several staff to address NPS pollution, few staff are dedicated specifically to assisting States implement their State Management Programs or §319 grants. The majority of Regional Offices have some type of formal or informal NPS group which addresses common concerns of NPS-related programs. These groups also often help make decisions in the use of §319 resources. In most Regional Offices, implementation of §319 is divided among several staff who also have other non-§319 related responsibilities.

Regional Office implementation of the §319 grant program varies considerably across the Regions. Most Regional Offices provide their own guidance to States which, though consistent with national guidance, varies in specificity. Regional Offices use different criteria, weighting factors, and priorities for evaluating grant proposals. Oversight of State implementation also differs from Region to Region. Although all Regional Offices assure that approved grants are consistent with SMP objectives, the majority does not appear to

focus on States' implementation of their SMP milestones. Reporting requirements for States also differ among Regional Offices, both in form and content.

B. OVERALL PROGRAM MANAGEMENT

EPA provided States the opportunity to develop diverse NPS programs, but has not yet defined a vision or role for a national NPS program. Through its initial NPS and grant guidance, EPA allowed States great flexibility in developing their programs. However, EPA has not established a clear vision to help set the direction or create a common framework for the national program. EPA also does not have a strategy for implementing the program or an identifiable role for supporting State programs. Finally, the §319 program has suffered from an absence of EPA Headquarters attention. Upper management and staff have been working to implement the Coastal Zone Act Reauthorization Amendments of 1990 and have not been able to show adequate support for, or conduct adequate oversight of, the §319 program

IV. RECOMMENDATIONS TO EPA

A. EMPHASIZE WATERSHED PROTECTION

In order to provide greater focus for the NPS program, the Office of Water should more clearly and strongly emphasize that a watershed protection approach be the basis of State NPS programs. The Office of Water should encourage Congress to require (and to provide resources for) revisions to State Management Programs. The Office of Water should develop SMP guidance to clarify how to define and implement a watershed-focused NPS program and should revise §319 grant guidance to increase emphasis on implementing watershed projects.

B. DEFINE PROGRAM GOALS AND ROLES

The Office of Water and Regional Offices should clearly define EPA's goals, strategy and role for the national NPS program. The Office of Water needs to clearly define its expectations for the national NPS program. In defining a supporting role for itself, EPA should specifically consider ways to implement the themes originally identified in the "Agenda for the Future." To assure support for the program, OW should initiate a process for involving Regional Offices, States, and others to determine leadership roles and support needs.

C. SHOW SUPPORT FOR PROGRAM

The Office of Water should more visibly support the NPS program and send a message to the States and Regional Offices that the NPS program is among the Agency's top priorities. To foster interest in controlling NPS pollution, Office of Wetlands, Oceans, and Watersheds management should continue to publicly demonstrate its support for the NPS program and encourage top management to do the same. The Office of Water should consider increasing the emphasis given to NPS-related programs in annual operating guidance and should provide resources to build Regional core §319 staff dedicated to supporting and monitoring States' NPS programs. Additionally, OW should encourage EPA to request appropriations from Congress for the §319 program that are at least equal to what it received in previous years.

D. IMPROVE PROGRAM OVERSIGHT

To assure program effectiveness and success, EPA should continue to improve its oversight capability and encourage States to develop quantifiable measures of success. The Office of Water, in concert with Regional Offices and States, should develop measures of progress for evaluating the national program. The Assessment and Watershed Protection Division (AWPD), Regional Offices, and States should jointly develop a standardized evaluation format which can be used to evaluate State progress as well as determine parameters for information necessary to be included in grant work program proposals. Finally, AWPD's support for Headquarters liaisons to the Regional Offices should be strengthened.

I INTRODUCTION

A. BACKGROUND

Nonpoint source (NPS) pollution is widely acknowledged as being a highly significant source of pollution currently threatening our Nation's surface waters. Nonpoint sources are varied, widespread, and ubiquitous. They cannot be regulated in the same manner in which point sources are controlled. Section 319 of the Clean Water Act Amendments of 1987 (CWA) required the States to assess the impacts of NPS pollution on the quality of their navigable waters, identify the sources of NPS pollution to these waters, and develop State Management Programs (SMPs) to control these sources. Section 319 also authorized EPA to award grants to assist States in implementing their NPS programs.

During the last five years, all States which did not already have formal NPS programs developed them to meet the requirements of §319 and to qualify for State program implementation grants. Virtually all State Assessment Reports and SMPs have been completed and approved by EPA, lead NPS agencies have been designated to administer the programs, and, beginning in FY 1990, §319 grants have been awarded. The structure and implementation of these programs are often very different, due to differing NPS pollution problems, different levels of State capability and orientation, and previous NPS control efforts of the States. However, across the States, certain common themes as well as significant differences can be discerned in their overall approach toward implementing §319.

B. PURPOSE OF STUDY

In response to a request from the Office of Wetlands, Oceans and Watersheds (OWOW), EPA's Program Evaluation Division (PED) conducted a review of States' implementation of §319 of the CWA.

The goals of this study were to:

- Evaluate the extent to which §319 has been implemented by the States;
- Assess EPA's role in assisting States to implement §319; and
- Provide information to the Office of Wetlands, Oceans and Watersheds which program managers may use to set future directions for the §319 program.

C. METHODS

To meet the goals of this study, PED worked closely with the NPS Control Branch of the Assessment and Watershed Protection Division (AWPD) to select a sample of ten States to review. These States were:

- Massachusetts
- New Jersey
- Pennsylvania
- North Carolina
- Wisconsin
- Louisiana
- Kansas
- Colorado
- Nevada
- Oregon

This sample illustrates a variety of NPS programs being implemented by geographically diverse States in all ten EPA Regions. The sample does not represent all fifty States' programs, but the information derived from these ten States can help reveal how §319 has affected the development and implementation of many States' NPS programs.

During the course of the study, the PED project team visited nine of the ten States listed above (New Jersey was reviewed through documents only) and ten Regional Offices, conducting over 100 interviews with State, Regional, and Federal officials as well as private organizations interested in NPS pollution control. Data collection took place during Regional and State visits conducted between October 1991 and February 1992. The project team also met frequently with staff from the NPS Control Branch of AWPD.

The project team reviewed numerous documents describing individual State programs, such as SMPs, State Assessment Reports, FY 1990 and FY 1991 grant work programs, quarterly and annual §319 reports as well as other State-specific materials. EPA National and Regional guidance, publications, and other supporting documents were also reviewed. PED also conducted an analysis of the FY 1990 and 1991 grant work programs to characterize the use of §319 resources.

Given limitations in the scope and methodology of this study, a complete picture of States' NPS programs has not been drawn. Many topics have not been addressed in this report, and several issues may be the subject of controversy. However, we believe that the information contained herein will provide fresh insights about the NPS program to experts and newcomers alike and will stimulate fruitful discussions regarding future policies. Many findings and recommendations proposed by the participants in this study remain to be studied, and we hope and expect that this report is only a starting point for the reinvigoration of the NPS program and for preparation for reauthorization of the Clean Water Act.

The PED project team which conducted the study and wrote this report included Kristina Heinemann, Bevin Horn, Cord Jones, Andy Spielman, and Alan Youkeles, Project Manager. Len Fleckenstein was the Project Advisor.

PED would like to thank the NPS Control Branch management and staff and Regional Office management and staff for their assistance in providing information and feedback as we prepared this report. We additionally would like to thank the representatives of the Federal, State, and local agencies as well as non-governmental organizations who also shared valuable time and effort which were necessary to complete this study.

II. FINDINGS ON STATE IMPLEMENTATION OF PROGRAMS

A. DEFINING THE NPS PROGRAM

Finding: Because of the diverse nature of NPS pollution, there is no single definition of a NPS program.

Although the Clean Water Act does not contain a specific definition of NPS pollution, EPA defines nonpoint sources as those sources which do not meet the legal definition of a "point source" in §502(14).¹ EPA elaborated on this definition in its guidance to States for developing State Management Programs (1987 NPS Guidance)² by providing examples of categories of activities which may result in NPS pollution and by identifying pathways by which waters may be contaminated by NPS pollution. Categories of activities causing NPS pollution identified by EPA range from agriculture and silviculture to mining, urban runoff, and construction. Pathways of contamination identified include surface runoff, precipitation, atmospheric deposition, and percolation.

State Management Programs

Section 319 requires that "[t]he Governor of each State... shall... prepare... a management program which such State proposes to implement... for controlling pollution added from nonpoint sources to the navigable waters within the State and improving the quality of such waters."³ Though the States are required to develop a single State Management Program (SMP) document, §319 does not necessarily require the States to identify a single all-encompassing NPS program which can control all of their NPS pollution. The statute actually encourages SMPs to identify all of the various "... programs to achieve implementation of best management practices [BMPs] by the categories, subcategories, and particular nonpoint sources..."⁴ affecting the waters identified in Assessment Reports, which the States are also required to provide.

Section 319 also requires SMPs to focus on implementation, rather than planning, but it allows States great flexibility to design their own NPS programs, giving the State the

¹ EPA, Office of Water, "Managing Nonpoint Source Pollution: Final Report to Congress on Section 319 of the Clean Water Act"(1989), January 1992, p. 5.

² EPA, Office of Water, "Nonpoint Source Guidance," December 1987, p. 3.

³ Water Quality Act of 1987 (CWA), Section 319(b)(1).

⁴ Water Quality Act of 1987 (CWA), §319(b)(2)(B).

lead role in addressing NPS pollution problems and the Federal Government a limited support role. This flexibility reflects the concerns of Congress to assure that "the Federal Government does not intervene in State and local land-use planning decisions."⁵ However, the statute does require States to develop a schedule of annual milestones for implementing their SMPs and using BMPs and emphasizes that SMPs be implemented "to the maximum extent practicable... on a watershed-by-watershed basis."⁶

Wide Range of NPS-related Programs

In keeping with the mandate of §319 to address all the sources of NPS pollution identified in their State Assessment Reports, the majority of the States studied have described their NPS programs as agglomerations of numerous programs which have water quality-related responsibilities. All of the ten SMPs have, to varying levels of detail, identified State, local, and Federal agencies, particularly within the U.S. Department of Agriculture (USDA), which have specific programs and responsibilities for implementing BMPs that may control NPS pollution. Programs which address agriculture, wetlands, lakes, and estuaries, underground storage tanks, hazardous and solid waste disposal, among others, are included in many SMPs because they address NPS surface runoff or NPS threats to groundwater.

Many of the programs identified in the SMPs have their own missions (other than NPS control), strategies of implementation, and sources of funding. For example, a few SMPs include descriptions of abandoned coal mine reclamation programs because reclamation of these sites also may have substantial water quality benefits; however, these reclamation programs are primarily designed to protect public safety and have their own State or Federal sources of funding. Many agriculturally-related programs, which, in the past, have focused primarily on improving harvests through soil and water conservation practices and other BMPs, are also incorporated in many SMPs because of their impacts on water quality. Only one of the ten States, Wisconsin, has specifically excluded certain types of pollutant sources (land disposal runoff or leachate problems and waste storage/storage tank problems and spills) from its NPS program because these problems are already regulated by other State programs.

States' NPS programs also tend to mirror the diversity of NPS pollution problems that States face. Different States have emphasized implementation of different programs within their SMPs, reflecting their priorities for addressing various types of NPS problems. For example, both Massachusetts' and New Jersey's SMPs place emphasis on urban runoff and protection of public water supplies, while putting less emphasis on the impacts of agricultural and silvicultural sources. Alternatively, North Carolina and Louisiana identify agriculture as their primary source of NPS pollution and have focused more attention on

⁵ Library of Congress, Congressional Research Service, A Legislative History of the Water Quality Act of 1987, 1988, p. 322.

⁶ Water Quality Act of 1987 (CWA), §319(b)(2)(C) and §319(b)(4).

addressing this source in their SMPs. EPA's "Managing Nonpoint Source Pollution,"⁷ presents an excellent description of the diversity of NPS problems that exist among the States based on information provided in States' Assessment Reports.

Finding: Authority for implementing SMPs is generally decentralized.

Given the diversity of nonpoint sources to be addressed, EPA's 1987 NPS guidance recommended that Governors designate their water quality management agencies to lead the §319 program because they "are generally in the best position to carry out the overall NPS assessment and program development requirements of section 319."⁸ Additionally, several of these agencies' traditional activities for controlling point source pollution, such as developing water quality standards and conducting water quality monitoring, are also integral components of a NPS control program. These agencies are to be responsible for developing and implementing State Assessments Reports and SMPs and to be the recipients of §205(j)(5) and §319 grant funds, which they may allocate to other agencies or organizations, as appropriate, to implement projects. All of the ten States reviewed designated their departments of environmental protection (or equivalent) to implement their SMPs. In all of these States, however, the water quality management sub-divisions of these agencies were explicitly or implicitly delegated authority to act as the lead NPS agencies (LNPSAs) in accordance with EPA guidance.

Active involvement of multiple agencies is vital in order to successfully implement a program to control the multiple sources of NPS pollution. As mentioned above, numerous agencies share responsibilities for programs that address NPS problems whether or not they are included in a SMP. However, providing effective leadership and organization for all participants is a serious challenge faced by most LNPSAs, who have primary responsibility for the §319 program. This section of the report focuses specifically on the authority and role of LNPSAs to implement §319, but it does not diminish the relevance of other environmentally-related programs' contributions to controlling NPS pollution. A later finding of this report ("II.F. Interagency Coordination") further considers coordination efforts among LNPSAs and other agencies and organizations.

Limits on Authority

Because the numerous sources of NPS pollution are addressed by a wide variety of State, Federal and local agency programs, the LNPSAs do not have authority to implement all of the programs identified in States' SMPs. Other organizational units (e.g., divisions or bureaus) or other agencies have independent authority to implement programs which

⁷ EPA, Office of Water, "Managing Nonpoint Source Pollution: Final Report to Congress on Section 319 of the Clean Water Act" (1989), January 1992, p. 5.

⁸ EPA, Office of Water, "Nonpoint Source Guidance," December 1987, p. 20.

affect nonpoint sources and are not accountable to the LNPSAs for their activities. Additionally, although most LNPSAs are responsible for implementing the majority of the milestones (scheduled implementation targets) in their SMPs, in a few SMPs, other agencies (divisions) are responsible for implementing many, if not most, of the milestones.

The independent authority of other agencies to administer their own NPS-related programs limits the role of the LNPSAs. LNPSAs which do not have their own State sources of funding to implement the programs identified in the SMPs have virtually no leverage to encourage other agencies' participation except through the allocation of §319 grants. Even among the five study States which dedicate substantial State resources to implement specific NPS pollution control programs, three LNPSAs have little or no role in influencing the use of these resources. One example is Pennsylvania, in which the Department of Environmental Resources houses both the Bureau of Soil and Water Conservation (BSWC) and the Bureau of Water Quality Management (BWQM). The State dedicates substantial State resources to implement its Chesapeake Bay Nonpoint Source Pollution Abatement Program through the BSWC, but is administering the §319 program through the BWQM, which has few resources for, and little influence in, implementing the NPS program. Due to the experience and institutional framework that already exists within the Bureau of Soil and Water Conservation, the State is seriously considering shifting responsibility for administering the §319 program from the Bureau of Water Quality Management to the Bureau of Soil and Water Conservation.

Responsibility for North Carolina's NPS program is also shared between the LNPSA (located within the Division of Environmental Management of the Department of Environment, Health, and Natural Resources--DEHNR) and other agencies or sub-agencies, especially the Division of Soil and Water Conservation (also in the DEHNR), which administers the State-funded agricultural cost-sharing program. However, unlike most of the other States studied, North Carolina's LNPSA also has responsibility for implementing several NPS-related programs, such as stormwater control and wetlands protection in addition to its responsibility to implement §319. In contrast, other States' LNPSAs do not have authority to implement other programs such as wetlands or stormwater control programs; the LNPSAs are often, at best, at a hierarchical level equal to other State agencies (or divisions) which have authority for these NPS-related programs. From an organizational standpoint, North Carolina's LNPSA has greater opportunity to influence NPS-related programs than other States because it has a wider scope of authority.

Lead NPS Agencies as Coordinators

Although most of the LNPSAs reviewed have some programs of their own for developing, implementing, or measuring NPS controls, the majority seem to serve more as a focal point for facilitating and coordinating others' efforts to implement NPS controls. State officials and SMPs emphasize a supportive role rather than a directive one. Several SMPs clearly describe providing assistance to, or encouraging the participation of, other agencies as their primary strategy for achieving NPS controls. For example, Oregon bases its NPS control program on the implementation of action plans which it develops through memoranda of agreement with designated management agencies. The Oregon LNPSA's

role is to develop water quality standards, conduct NPS monitoring and BMP effectiveness evaluations, provide leadership in identifying NPS program needs and funding resources, and facilitate development of effective NPS programs of designated management agencies.⁹ The LNPSA itself is not the major actor responsible for implementing NPS controls. Massachusetts' SMP likewise emphasizes that its main objective is to develop "a statewide networked program which will draw on the expertise and skills of various ... agencies..."¹⁰ The role of the LNPSA is identified throughout the SMP as providing assistance to other programs, as needed, to improve their focus on implementing NPS controls.

LNPSAs' allocation of §319 resources also exemplifies their interest in facilitating and coordinating NPS efforts. Among the six States in which the LNPSAs emphasize their role as coordinators, five distributed 65% or more of their 1990-1991 §319 grant resources to other agencies, sub-agencies, or organizations to implement NPS projects or programs. By contrast, in the four remaining States in which the LNPSAs do not view their roles as primarily facilitative, the LNPSAs used 60% or more of the §319 resources for implementation of their own NPS programs.

Finding: **The extent to which States are institutionalizing their NPS programs varies widely.**

Extent of Institutionalization

States are in various stages of implementing their NPS programs, and the level of institutional support for these programs varies widely. Because there is no single definition of a NPS program, institutional support for such programs is also difficult to define or estimate across the States. Organization, resources, and staffing may be used as indicators of the extent of institutionalization, but because there are often no distinct boundaries to States' NPS programs, comprehensive estimates of NPS staff and resources are generally unavailable. Several Regional Offices confirmed that this information cannot be readily obtained, commenting that generally information submitted to EPA to meet statutory "maintenance of effort" requirements was highly variable in quality and could not be used to estimate the size of States' NPS programs. As a way to gauge the institutionalization of State NPS programs, this report focuses primarily on the organization, staffing, and resources of the LNPSAs because they are designated to implement the SMPs. Such focus greatly underestimates the extent to which staff and resources in other programs are being dedicated to implementing NPS controls, and in a few States, exceptional situations are noted.

⁹ Oregon Department of Environmental Quality, "Nonpoint Source Statewide Management Plan For Oregon," July 1989, p.. 21.

¹⁰ Commonwealth of Massachusetts, Department of Environmental Protection, Division of Water Pollution Control. "Nonpoint Source Management Plan," 1989, p. 2.

NPS Program Organizational Units

EPA grant guidance encourages States to group nonpoint source positions as a unit "to reinforce the increasing priority given to abatement of nonpoint source pollution and... [to] affirm the unique skills necessary for [implementing NPS program] functions..."¹¹ The majority of the ten States studied do not have separate organizational units dedicated to implementing the State's NPS program. Although staff within LNPSAs may be designated to implement the NPS program, these positions may or may not be fully dedicated to this purpose. In a few States, the small size of the NPS program and the limited activities of the LNPSA itself may not warrant the establishment of a separate unit. However, establishing a NPS program organizational unit, as Louisiana has recently done with 3.5 staff, is one means of affirming interest in NPS pollution control.

Two other study States, Wisconsin and Kansas, also have designated separate organizational units to implement their NPS control programs. In addition to having staff in other programs dedicated to NPS control, Wisconsin's Nonpoint Source and Land Management Section contains over 18 staff, with specialists responsible for watershed project planning, policy and ordinance development, outreach, modeling, water quality evaluation and appraisal, standards development, and engineering--among others--and has been operating since 1979. In Kansas, the NPS program is more complicated, because, although a separate organizational unit exists, its role in implementing the NPS program is more limited. While NPS program staff in Kansas' LNPSA are involved in the development, approval, evaluation, and technical review of local NPS management plans, another agency, the State Conservation Commission, supports development and implementation of plans through financial and technical assistance. NPS program staff are also responsible for administering the local environmental protection plan program which provides State grants to communities to develop and implement plans to enact local sanitary codes.

State Resources

Five of the ten States reviewed identified substantial State resources (over \$1 million) specifically dedicated to NPS control programs in addition to \$319 grant matching funds that must be contributed by non-Federal sources. These States committed between \$1 million and \$18 million for their NPS programs in 1991-1992, primarily as part of cost-sharing programs with individuals or municipalities to facilitate implementation of BMPs. Although other States are making similar investments to implement their NPS programs, these additional investments are not substantial or could not be clearly identified.

¹¹ EPA, Office of Water, "Guidance on the Award and Management of Nonpoint Source Program Implementation Grants Under Section 319(h) of the Clean Water Act," January 14, 1991, p. 14.

The oldest of the State programs with substantial resources dedicated to NPS pollution control is Wisconsin's Nonpoint Source Water Pollution Abatement Program, which was established in 1979 and has grown from an annual allocation of nearly \$1 million to \$18 million in 1991-1992. This program provides cost-sharing assistance to implement BMPs to address comprehensively all pollutant sources in priority watershed projects--though most of the resources have been used to provide financial assistance to address agricultural nonpoint sources.

Pennsylvania and North Carolina both also support extensive cost-sharing programs ranging from \$3.5 million to \$8 million. These programs began in the mid-1980s and are exclusively oriented to facilitating implementation of agricultural BMPs. In both of these States, the cost-sharing programs are directed not by the LNPSA designated to implement §319, but by other agencies or divisions.

Kansas' and New Jersey's programs are different in that they do not focus on agricultural nonpoint sources. New Jersey's LNPSA received \$10 million out of over \$30 million in State funds in 1989 to implement NPS components of a program to improve coastal municipal stormwater and sanitary sewers. Kansas committed over \$3 million to begin two programs in 1990, one providing financial assistance to communities to implement local environmental protection plans, the second providing financial assistance to implement local watershed management plans, which include control of agricultural and nonagricultural sources. Kansas' LNPSA has primary responsibility to implement the first program but plays a minor role in directing how resources are used in the second program.

Use of §319 Funds for Staff

Section 319 resources have had a significant impact in supporting the staff of most States' NPS programs. In five of the ten States, §319 (or §205) resources support most of the staff which are dedicated specifically to implement the NPS programs. Over 55% of the combined 1990-1991 §319 grant work program funds are used to support over 120 FTE in the ten States. Staff variously conduct general program management, regulation development and implementation, technical transfer and assistance projects, outreach programs, monitoring, and other activities. The majority of the ten States support between three and ten FTE with their 1990-1991 §319 resources, though in several States, some of these FTE are also allocated to agencies outside the LNPSA to support other programs or projects. In some States, annual §319 resources support staff positions for more than one fiscal year; in other States the staff positions are refunded on an annual basis. For example, in Nevada, 1991 §319 resources support one FTE staff person for a three year period; in Wisconsin, however, virtually all FTE supported by 1990 §319 funds have again been supported by 1991 grant resources.

Several States have unique staffing situations. Two States, Pennsylvania and Louisiana, have had restrictions or prohibitions against using Federal resources to support State staff and have used no or virtually no §319 resources to pay for staff to implement their NPS programs. In Pennsylvania, restrictions have meant that the LNPSA has less

than one FTE dedicated to implementing §319. In Louisiana, the State allocated one FTE in 1987 to develop the State's SMP, and the NPS program has since acquired 2.5 more FTE from State resources.

Conversely, Wisconsin and North Carolina have used over 80% of their §319 resources to support staff. In Wisconsin, although the budget for its cost-sharing program has grown dramatically, resources to support staff to implement the program have not. §319 grant resources have supported more than 35 FTE over two years, augmenting staff responsible for implementing the program by roughly one-third as well as funding positions in other programs that are integral to the NPS program. North Carolina also supported 30 FTE over two years to implement its program, almost all of which were retained by the LNPSA. Uses for these FTE range from §319 program administration to implementation of statewide programs to site- or watershed-specific projects.

Other EPA Resources

While §319 provides for grant resources to be made available to States to implement their SMPs, the CWA also specifically authorizes use of §205(j)(5) funds to develop and implement States' programs. Most of the States mentioned having used these funds both to develop their SMPs as well as to implement NPS control projects before §319 grant funds became available. Additionally, a few States also indicated having used §106 resources to develop their SMPs, and at least one of the ten States reviewed, Colorado, reported having used significant §201(g)(1)(b) resources to implement NPS control projects.

Section 603(c) of the CWA authorizes States to use water pollution control revolving fund resources to implement their SMPs. None of the ten States reviewed has made use of the revolving fund to implement NPS control programs (though some States outside the scope of this study have). In Wisconsin, for example, officials of the NPS control program commented that the revolving fund is not being used because the State's cost-sharing program, available to individuals as well as municipalities, is generally perceived as more lucrative than a loan program. In another State, the State legislature had authorized use of \$50 million of its \$1 billion revolving fund for NPS control, but none of the revolving funds has yet been appropriated nor have regulations regarding their use in the State's NPS control program been developed.

B. SETTING WATERSHED-SPECIFIC PRIORITIES

Finding: **The majority of the ten States do not have NPS programs oriented toward improving water quality on a watershed-specific basis.**

Relation to Water Quality Goals

As noted earlier, §319 emphasizes that SMPs be implemented on a watershed-by-watershed basis to the maximum extent practicable. All the SMPs identify programs to conduct, encourage, and support BMP implementation, and most identify a limited number of watersheds in which they intend to conduct NPS control activities. However, the majority of SMPs do not identify strategic plans or milestones for achieving water quality goals for specific waters identified in their Assessment Reports. In general, programs described in the SMPs are not tied to specific waterbodies, and their impact on water quality remains largely unknown. Rather, many of the programs in the SMPs are pollutant category-specific, tending to be statewide in their scope. Few States identified strategies for merging their NPS-related programs to comprehensively address watershed-specific NPS pollution problems.

Waterbody Ranking

Although §319 does not require it, EPA's 1987 NPS Guidance¹² as well as its 1991 grant guidance strongly encourages States to rank the waterbodies identified in their assessments to determine priorities for the use of their limited resources. EPA's 1991 guidance on §319 grant awards also encourages Regional Offices to "give funding priority to watershed projects in high priority watersheds identified through State priority ranking systems"¹³ when allocating the competitive portion of the grant awards among the States. EPA additionally offered technical guidance to States on priority-setting approaches used by selected States.¹⁴

The majority of States do not appear to have well-developed mechanisms for

¹² EPA, Office of Water, "Nonpoint Source Guidance," December 1987, p. 11-12.

¹³ EPA, Office of Water, Memorandum on "Final Guidance on the Award and Management of Nonpoint Source Program Implementation Grants under Section 319(h) of the Clean Water Act," from Lajuana S. Wilcher, Assistant Administrator, to Water Management Division Directors, February 15, 1991, p. 2.

¹⁴ EPA, Office of Water, "Setting Priorities: The Key to Nonpoint Source Control," July 1987.

ranking waters to determine NPS control implementation priorities.¹⁵ Four of the ten States reviewed do not seem to have any formal mechanism for determining priorities for using their §319 resources on a watershed-specific basis. Two other States, Colorado and Massachusetts, have identified some mechanism or list of waterbodies for setting implementation priorities, but have not, or have not yet, used them. For example, Colorado's SMP describes a four-year schedule for implementing demonstration projects, many of which are to be implemented using §319 resources, in specified watersheds. The SMP also identifies a method for prioritizing projects within these watersheds. However, due to changing priorities or circumstances, Colorado has chosen to make its decisions annually about where to use its §319 resources to conduct NPS control activities (as have most of the ten States) rather than use the method described in its SMP. Massachusetts appears to be the only State to have developed a process to target its use of §319 resources geographically in direct response to EPA guidance. Massachusetts intends to use this process beginning with the FY 1992 grant cycle, although the selection process still needs refinement to better identify specific watersheds in which to implement projects.

Four Watershed-Specific Approaches

A few State NPS programs are exceptional in their watershed-specific orientation. Wisconsin, North Carolina, Kansas, and Oregon each has programs that address NPS problems on a watershed-specific basis. (Other watershed-specific programs, such as Pennsylvania's Chesapeake Bay Nonpoint Source Pollution Abatement Program, are not included here because the LNPSA does not have responsibility for this program.) Three of these States rely primarily on State resources to implement their programs and use §319 resources only to supplement their efforts.

Wisconsin's Bureau of Water Resources Management has had a well-developed cost-sharing program (mentioned earlier) since 1979 to conduct comprehensive NPS control projects in priority watersheds in a systematic manner. Through earlier basin planning efforts, the State identified 131 out of 300 watersheds, through a ranking system, as threatened or impaired from NPS pollution. Fifty-six projects, which last roughly eight years each, have been initiated or completed since 1979, and the State has a proposed goal of initiating projects in all 131 watersheds by 2000.

In North Carolina, the LNPSA has been working to classify waterbodies which will be subject to varying degrees of land development regulation. In 1990, North Carolina initiated a whole basin approach toward water quality management which incorporates regulation of point and nonpoint sources and subsumes the State's NPS program. This approach merges numerous programs to focus on basin-wide water quality issues. Methods for integrating this program with the agricultural cost-sharing program do not yet seem well-defined, and full implementation of this program has not begun.

¹⁵ Since data were first gathered for this study, Pennsylvania has reportedly developed an assessment which ranks watersheds according to a priority based on pollution potential.

In 1990, Kansas began a program which provides technical and financial assistance to localities which develop NPS management programs. Priorities for choosing among watershed projects to support include whether the waters are identified as high quality or highly vulnerable. The State has also identified basin-wide environmental protection strategies which highlight particular NPS problems based on hydrologic units areas. Recent legislation to protect multi-purpose small lakes will also guide the determination of implementation priorities of local management plans. To date, only a few projects have been initiated and several more are in planning stages.

Oregon has developed several mechanisms to rank its waterbodies in order to target how resources for implementing NPS controls are used. Waterbodies are broadly classified in the State's NPS Assessment of 1988, are ranked according to criteria in the State Clean Water Strategy, and are identified as to whether they meet EPA's §303(d) classifications. Each of these criteria are used to support decisions to conduct watershed-specific projects as part of the State's NPS program supported by §319 resources. However, most of these projects do not appear to address comprehensively all nonpoint sources in the watersheds. The Governor's Watershed Enhancement Board also provides resources to communities which conduct watershed improvement projects that may also include NPS control. Several of these projects are supplemented with §319 resources and are also subject to the same classification process.

C. IMPLEMENTATION OF STATE MANAGEMENT PROGRAMS

Finding: **State Management Programs generally cannot be used to gauge the States' progress in implementing NPS controls.**

Section 319 required States to include a four-year schedule in their SMPs which contains annual milestones for implementing BMPs and programs to reduce pollutant loadings of nonpoint sources. States were also required to submit annual reports to EPA to describe their progress in meeting these milestones and, to the extent practicable, to identify reductions in nonpoint source loadings and improvements in water quality. Although evaluating the implementation of these milestones should help determine States' progress in implementing their NPS programs, the highly variable quality and quantity of the milestones makes such evaluation infeasible for the majority of the ten States.

SMP Milestone Variability

EPA's 1987 NPS Guidance did not specify the types of milestones that States should include in their SMPs, although it did provide some examples of appropriate milestones, such as anticipated improvements in water quality, numbers and types of BMPs implemented, and NPS programs or laws established or passed. Most of the ten States interpreted the guidance loosely and did not identify meaningful milestones for which they could be held accountable. Officials in at least two States commented that they were unwilling to set milestones that they did not believe they could meet. Officials in one State were especially concerned about raising public expectations beyond the State's capability to meet them. States' doubts about the future availability of §319 funding for State NPS programs also reportedly colored the quality of the milestones some States were willing to commit to implementing.

Variable quality and quantity of milestones impedes meaningful evaluation of progress in implementation or improvement in water quality. The quality of milestones varies in several ways. First, many milestones are actually commitments of previously existing programs which have been incorporated into the SMPs because they have a role in controlling NPS pollution. An example of this type of milestone is the commitment to inspect underground storage tanks as part of the Underground Storage Tank program. Inclusion of this type of milestone in a SMP exacerbates the difficulty of defining the scope of a State §319 NPS program. States deserve recognition for all of their NPS control efforts, but counting the milestones of other programs impedes the meaningful evaluation of the effectiveness of the §319 program mandated by the statute.

In other cases, milestones are ongoing, with no quantifiable measures to provide a base by which to measure progress. For example, a milestone which commits to conducting research in integrated pest management over a four year period does not allow for any measure of relative success. Likewise, milestones to conduct water quality management workshops, write water quality monitoring reports, determine TMDLs, or even conduct

BMP implementation projects may be quantifiable but cannot be evaluated if targets are not specified.

SMPs also vary greatly in the number of milestones they identify for measuring progress, thus making consistent evaluation difficult. The number of milestones in the ten SMPs studied ranged from fewer than ten during a four-year period to nearly 150 annually. Five of the ten States committed to meeting fewer than 30 milestones during the entire four-year lifetime of their SMPs. Not only is judging these States' performance based on their implementation of the SMPs not possible, especially given their variable quality, but also the performance of these States cannot be weighed against the performance of other States which set more ambitious targets for themselves.

Amendments to State Management Programs

Most States noted in interviews or in their SMPs that the NPS program is very dynamic and is continually evolving and growing. Several States and Regional Offices commented on the need to revise their SMPs periodically to reflect new directions that States are taking in light of their experience and increased knowledge. Although §319 makes no provision for amending or updating SMPs, a few States have built this process into their NPS programs. For example, North Carolina, which has numerous milestones listed in the four-year action plans within its SMP, makes revisions to these plans on an annual basis in its annual report. Nevada, which has very few milestones in its SMP, also considered its 1991 §319 grant work program to be a revision to its SMP milestones and schedules, reflecting new activities to be funded. In another variation, Louisiana program staff expect to revisit their SMP every two years to reassess the needs of the NPS program and amend the SMP to plan for the use of anticipated §319 resources. As the State receives approval for additional portions of its SMP, which address additional pollutant categories, it can then be eligible to receive §319 resources to implement projects that address these categories.

Use of Annual Reports

Because many SMPs contain vague or few milestones, most corresponding annual reports do not contain detailed information on milestones which provide a useful measure of SMP implementation and generally are not a good indicator of States' progress in implementing their NPS programs. However, annual reports have generally highlighted various NPS programs described in the SMPs, and most provide specific information regarding States' progress in implementing projects supported by §319 grants. As of December 1991, two of the ten States had not yet submitted annual reports for FY 1990.

Annual reports generally do not appear to be the means by which Regional Offices learn of States' implementation of their NPS programs. Rather, the personal communication networks built up between State and Regional Office staff seem to be most helpful to the Regional Offices in making their assessments about the quality of States' performance in implementing their NPS programs.

D. STATES' USE OF §319 GRANTS

Section 319 authorizes EPA to award grants to States to assist them in implementing their SMPs. EPA issued interim guidance for FY 1990 to guide States in their use of §319 resources to implement their SMPs and issued final grant guidance for FY 1991 and subsequent years. For FY 1990 and FY 1991, the ten States received over \$12 million in §319 resources. The States received annual grants ranging from \$320,000 to \$1.2 million.

Finding: **Flexible guidance has enabled States to use §319 resources to address numerous NPS priorities.**

Flexible Guidance

The FY 1991 §319 grant guidance is comprehensive and flexible. At least sixteen national priorities and numerous other objectives guide the States' decisions in using the §319 resources. The grant guidance is relatively short, yet covers many topic areas, the result being that it is open to wide interpretation.

A major message of the guidance is the encouragement to States to build viable institutions while at the same time implementing watershed projects that will yield quick demonstrable improvements in water quality and win increased public support. The guidance also gives flexibility to Regional Offices and States to address their individual priorities and accounts for possible differences in the levels of institutionalization among State programs. As a modification to the FY 1990 guidance, the FY 1991 guidance further directs Regional Offices to use a portion of the §319 grant funds to support States' "base programs" and to distribute the remaining funds to the States on a competitive basis. Competitive awards are intended to support the most effective and innovative projects and program activities. Finally, the guidance identifies several criteria which a grant proposal must meet before it can be approved. Many of these criteria address accountability and performance issues and have their origins in statutory requirements.

Diversity of Grant Projects

States, with the approval of Regional Offices, have used the flexibility in the grant guidance to conduct a wide variety of activities with §319 funds. Within each of their annual grant work programs, the States described between two and eighteen separate implementation projects, ranging in value from \$80 to nearly \$500,000. During FY 1990 and FY 1991, the Regional Offices approved 188 projects within the grant work programs of the ten States. "§319 resources" or "§319 funds" in this report refers only to the Federal resources allocated to the States for the projects identified in the grant work programs. By law, States are required to contribute at least 40% of the cost of the grant work programs which receive Federal funds through §319, but in many cases, the States did not identify

funds on a project by project basis; thus this report did not determine the use of the State matching resources.

While some projects, as described in the annual grant work programs, have a single objective, such as production of a BMP manual, many others have multiple objectives, such as BMP implementation, water quality monitoring, and education, all combined within the context of a BMP demonstration project. Projects may be expensive, open-ended, and have very general descriptions. Alternatively, projects may be relatively specific, inexpensive, and of fixed duration—for example, the design of a BMP within a year to address a very specific NPS problem. Several projects which are supported by §319 funds are also components of larger State or Federal efforts, such as NPS monitoring in USDA water quality initiative projects. Projects may also cover miscellaneous expenditures, such as the purchase of equipment, attendance at conferences, or updates of SMPs.

Characterization of Grant Projects

To characterize States' use of their §319 grant resources, each project identified in the grant work programs was classified by the project team into one of following nine broad categories:

- **BMP Implementation** (including demonstration projects)
- **Education and Outreach**
- **Regulation** (regulation and policy development and implementation)
- **Water Quality Assessment** (generally to classify waters for future action or to identify problems)
- **Evaluation Monitoring** (to evaluate the impact of BMP implementation on water quality)
- **Technical Assistance** (direct or indirect assistance or technology transfer to facilitate BMP implementation)
- **Management** (program staff to administer the overall program or multiple or unspecified project activities)
- **BMP Development** (research to identify appropriate BMPs for specific NPS problems)
- **Miscellaneous** (other, equipment purchases, unknown)

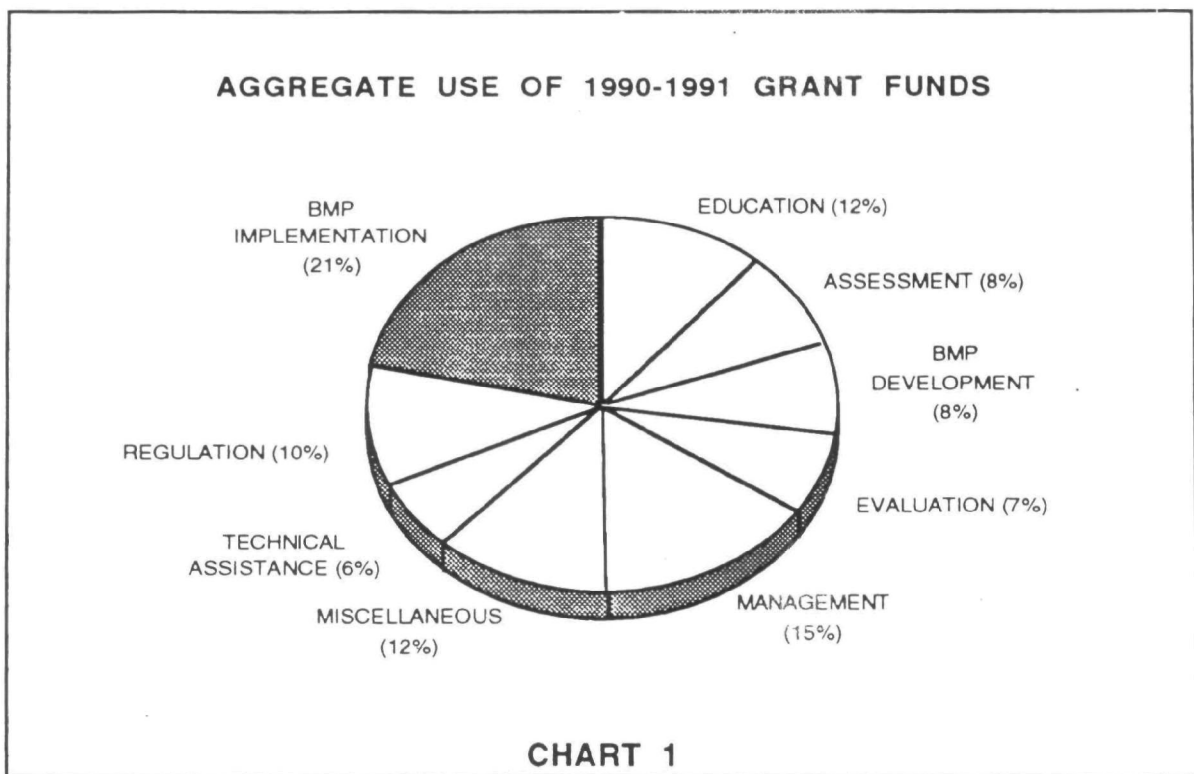
Projects were classified into categories based on what appeared to be their main intended purpose, regardless of whether they addressed surface or groundwater problems. However, many projects, in fact, include components of more than one category. Because descriptions of projects within States' work programs are highly varied in level of detail, where data gaps occurred, the project team surmised the most reasonable categorization. Other data, including FTE supported by §319 grants and the distribution of §319 resources to implementing agencies, were assessed where possible.

Although the PED project team initially tried to correlate grant projects with SMP milestones, grant projects generally were too specific and SMP milestones too broad for valuable comparisons to be made. Generally, however, most grant projects appeared to

address the goals of the SMPs. Additionally, comparisons in the use of §319 resources across the two years of implementation were not viable because of the newness of the program and the lack of long-term priorities. Finally, States' implementation of their grant work programs was not assessed. Anecdotal information suggests that the majority of States have made progress in implementing their FY 1990 projects, though a few States have experienced significant delays in starting projects. FY 1991 grant resources generally became available to the States in August 1991, and implementation of these projects had only just begun when study data were collected.

Aggregate Distribution of Resources

In the aggregate, the ten States' use of §319 resources was fairly evenly divided among the nine categories. Chart 1 shows the aggregate distribution of resources among the categories. Projects whose primary focus was to implement BMPs received a significantly



greater amount of resources (21%) during the two year period than did other categories.

However, the States conducted a wide diversity of BMP implementation projects. Many of these projects contain activities that may be classified into the other categories. For example, numerous BMP implementation projects contain strong education as well as water quality monitoring components. Specific examples of BMP implementation projects include: a demonstration project in Oregon to introduce riparian vegetation and conduct streambank stabilization activities in a creek, a Massachusetts project to install filter beds to remove NPS pollutants from a reservoir water supply, and, in Wisconsin, the hiring of an

easement coordinator to arrange the purchase of easements to abate and prevent NPS pollution in priority watershed projects.

Management was the category to receive the next largest share of §319 resources (15%) for the two year period. Management projects entail supporting program staff, usually to implement the overall NPS program or a mix of specific or non-specific activities. These projects are not ordinarily site-specific and generally appear to be of indefinite duration. In some States, such as Massachusetts, program staff were initially supported by §205(j)(5) resources, but as these sources of funding are depleted, §319 resources are replacing them.

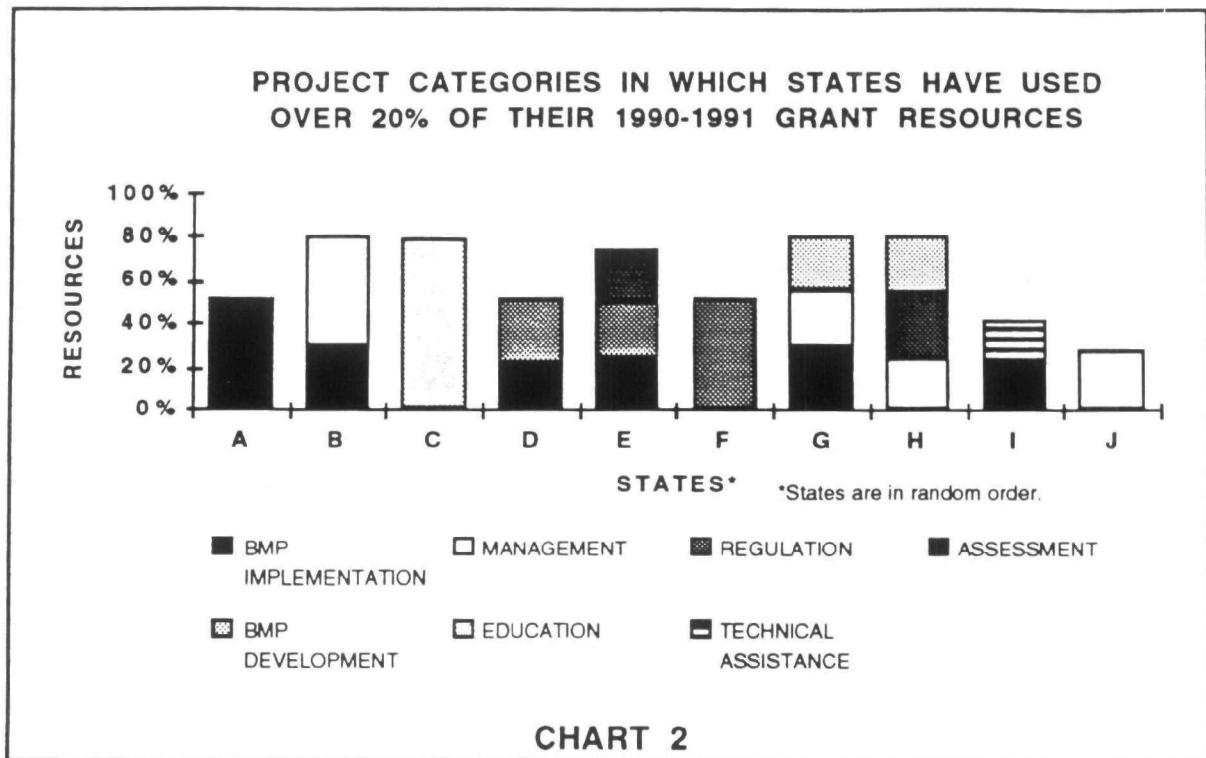
Miscellaneous (12%), education (12%), and regulation-related (10%) projects all also have received 10% or more of the §319 resources available during FY 1990 and FY 1991. The majority of regulation-related projects are generally for the development and implementation of regulations to control stormwater discharges in municipalities not regulated under the National Pollutant Discharge Elimination System (NPDES). Education projects generally address urban runoff problems or agricultural issues and may be site-specific or Statewide programs. The other project categories received less than 10% of the aggregate State resources for FY 1990 and FY 1991.

Finding: States concentrate their use of §319 resources to focus on different priority activities.

Individual States' Use of §319 Resources

Although the aggregate distribution of §319 resources is fairly even across the nine categories, individual States have emphasized different types of activities. Chart 2 identifies the project categories in which each State has dedicated over 20% of its §319 resources. The majority of States are using between 20% and 30% of their §319 resources to implement two or three types of projects. Four States focused 50% or more of their resources on one particular category of activities. These areas of concentration illustrate differences in States' priorities for using §319 resources to implement their NPS programs.

For some States, the area of concentrated use of resources reflects their program's emphasis. For example, Colorado's NPS program is primarily intended to conduct relatively small-scale BMP implementation projects to demonstrate the effectiveness of new or innovative BMPs. Over 50% of this State's FY 1990 and FY 1991 resources were dedicated to these types of projects. Louisiana's overall NPS program focuses on education, which is considered by Louisiana to be the best means to effect a long-term change in individuals' behavior and thus reduce NPS loadings. Nearly 80% of the State's §319 resources have been used to support educational efforts to address agricultural, silvicultural, and wetlands and estuarine NPS sources. Thus, while Chart 2 depicts States' use of §319 grant resources, it does not necessarily indicate how States use all available resources to implement their NPS programs.



Program Balance

The grant guidance emphasizes that States should use §319 resources to balance their overall NPS programs between watershed projects to improve water quality and Statewide projects to institutionalize their programs. However, because no single definition of a State NPS program exists, determining how effective §319 resources have been at helping the State establish this overall balance is not possible. In addition, determining the balance of projects within a State's grant work program may also be highly misleading. For example, among the States reviewed, Wisconsin has used the least amount of §319 resources to conduct BMP implementation projects; however, it spends more State resources annually than any of the ten States to support its cost-sharing program to implement BMPs in its priority watersheds. This use of resources, though not balanced within the context of the §319 grant, is highly appropriate for Wisconsin's overall NPS program.

Finally, no clear definitions exist for watershed or Statewide activities that can consistently be applied to States' use of §319 resources. Fewer than 20% of all §319-funded projects in the ten States seem to meet all the minimum requirements identified in the guidance for watershed projects--fewer than 25% of all §319 projects actually implement BMPs. However, as noted earlier, in many instances, §319 resources may contribute to larger-scale projects which may more clearly be identified as watershed projects. Nearly 45% of the States' projects are site-specific, i.e., projects that conduct monitoring, education,

technical assistance, and other functions which may directly or indirectly improve water quality in a specific watershed.

E. MEASURING WATER QUALITY IMPACTS

Finding: The majority of States are making some effort to monitor the effectiveness of BMP implementation, though water quality impacts due to implementation of §319 are as yet unknown.

Importance of Water Quality Monitoring

Water quality monitoring is an essential component of BMP implementation projects, serving as a means to measure the impacts of implementation and progress in improving water quality. Section 319 requires States to report on reductions in pollutant loadings and water quality improvements which are a result of implementation of the SMPs. EPA, through its national §319 grant guidance, has also emphasized the importance of monitoring water quality improvements, directing Regional Offices to require that all watershed projects supported by §319 resources contain "clearly stated monitoring objectives and an evaluation strategy."¹⁶ The guidance also directs the Regional Offices to set aside five percent of their entire §319 Regional funding allocation to support more intensive water quality monitoring of selected projects as part of a national monitoring program to document the feasibility of controlling NPS pollution. However, because §319-funded projects have generally been in place for less than a year, as would be expected, water quality improvements stemming from their implementation generally cannot yet be detected.

Monitoring Efforts

Although the ten States' descriptions of monitoring in projects funded by §319 resources are often written in very general terms, the majority of projects which implement BMPs contain some type of measure to determine the effectiveness of their implementation. Project monitoring efforts variously include a mix of ambient water quality monitoring, biological assessments, model projections and photographic evidence, as recommended in the grant guidance. Most implementation projects appear to be monitored on a pre- and post-implementation basis, and few involve upstream and downstream comparisons or include paired watershed monitoring. Officials in most of the States placed little emphasis on achievements in water quality monitoring and generally gave the impression that improvements in monitoring are needed, both in the implementation of projects supported by §319 resources and for other projects within the scope of SMP implementation.

Seven of the ten States are using §319 resources specifically to conduct water quality monitoring projects. Three of these States use §319 resources to support water quality

¹⁶ EPA, Office of Water, "Guidance on the Award and Management of Nonpoint Source Program Implementation Grants Under Section 319(h) of the Clean Water Act," January 14, 1991, p. 20.

monitoring in hydrologic unit area projects being conducted by the USDA. Monitoring in these projects has been conducted either to measure the effectiveness of specific BMPs in reducing pollutant loadings or to evaluate general watershed water quality improvements. The four other States are using §319 resources to support water quality monitoring staff to evaluate watershed projects funded by §319 or other resources. For example, §319 resources are being used in North Carolina to continue monitoring the implementation of BMPs in targeted watersheds within USDA Watershed Protection and Flood Prevention Program (PL 83-566) and US Geological Survey demonstration projects. In Oregon, §319 funds are supporting a project to develop rapid bio-assessment protocols to assess the quality of the State's waters as well as evaluating water quality improvements in several BMP implementation projects which are also being supported by the grant. Similarly, in Colorado, staff have been hired using FY 1991 §319 funds to conduct NPS monitoring as well as to evaluate the effectiveness of BMP implementation projects.

One State's Monitoring Effort

Wisconsin is the only one of the ten States reviewed which seems to have a well-established program for monitoring water quality changes as part of its overall program to implement NPS control projects on a watershed-specific basis. Wisconsin's NPS program is required to evaluate changes in water quality in all of the priority watershed projects which it administers. Water quality monitoring plans are developed for each project and include collection of ambient and biological assessment data. Partly due to the costliness of monitoring, the State is currently investigating the minimum amount of monitoring needed to observe changes which can be used to develop standardized monitoring techniques to be applied in all watersheds. Few evaluations are complete because Wisconsin's watershed projects last between eight and ten years.

Generally Wisconsin's evaluations of early watershed projects (those commenced in the early 1980s) indicate that "water quality improvements can be documented at individual sites on small streams..., but no change in water quality in large streams or streams with multiple sources that were not all managed could be detected."¹⁷ The State has reported that the most important factors for the lack of detectable improvement is that "only a small percentage of practices estimated to be needed to improve water quality were installed, and the practices were scattered throughout the watersheds - often on lands not causing the greatest problems."¹⁸ These problems are being addressed in current projects where critical NPS pollution sources have been identified and targeted for the implementation of BMPs. Wisconsin's program also conducts small scale watershed projects where implementation of BMPs are more concentrated and water quality improvements may be more easily detected.

¹⁷ Wisconsin Nonpoint Source Pollution Abatement Program, "Section 319 Annual Report to EPA," September 1, 1991, p. 24.

¹⁸ Ibid, p. 24.

F. INTERAGENCY COORDINATION

Cooperation among agencies and organizations is an essential component of implementing States' NPS programs. Section 319 explicitly directs States to involve local public and private agencies and organizations "to the maximum extent practicable"¹⁹ to develop and implement SMPs. The statute also contains additional requirements for cooperation among State and local agencies as well as across States where appropriate.²⁰ EPA grant guidance also includes as one of its main objectives the encouragement of strong relationships among Federal, State, and local NPS-related programs "to create long-term program effectiveness."²¹

Finding: **§319 has facilitated increased communication and coordination among agencies and organizations to develop and implement the State Management Programs.**

Emphasis on Cooperation

LNPSAs have generally worked to engage the cooperation of other State, Federal and local agencies, as well as universities and private organizations, to implement the SMPs and specific NPS control activities. Many of the relationships among agencies, especially those related to agricultural interests, existed prior to §319, although the involvement of the LNPSAs and their focus on NPS control may not have been a substantial part of these relationships. Most of the States reviewed emphasize the importance of broad participation of agencies and organizations to implement their programs, and several SMPs have cited multi-agency participation as an important goal of their programs. Many of the States also identify multi-organization advisory groups within their SMPs which are responsible for the coordination of numerous NPS-related programs or activities. At least three States specifically formed advisory groups to assist in the development of their SMPs and then to assist in their implementation.

The majority of LNPSAs has signed memoranda of understanding or cooperative agreements with other State and Federal agencies. The memoranda establish formal communication links among the agencies and formalize the responsibilities necessary to

¹⁹ Water Quality Act (CWA), Section 319(b)(3).

²⁰ Provisions to assure Federal consistency with States' programs are also included in the statute, though their use in improving State/Federal coordination was not within the scope of this study.

²¹ EPA, Office of Water, "Guidance on the Award and Management of Nonpoint Source Program Implementation Grants Under Section 319(h) of the Clean Water Act," January 14, 1991, p. 7.

assure cooperation in addressing NPS pollution problems. For example, Oregon's SMP describes a process which relies primarily on the use of memoranda of agreement between the LNPSA and designated management agencies (DMAs) to establish action plans. The action plans identify specific NPS programs or activities the DMAs will be responsible for implementing. Also, in Wisconsin, the LNPSA recently signed a six-party memorandum of understanding with State and Federal agencies which have specific responsibilities for implementing NPS-related programs. The memorandum established two interagency committees to coordinate the use of resources and technical assistance for implementing the State's NPS program.

§319 Advisory Committees

Six of the ten States have advisory committees to assist in decision-making regarding the use of §319 grant resources. Most of these committees have fewer than 30 members and contain a mix of State and Federal representatives. However, the membership size and composition of these committees varies across the States, possibly extending only to other divisions within States' environmental protection agencies, or extending to State or Federal natural resource management agencies. Committees may also include local public and private interests. For example, in Pennsylvania, the committee's membership is basically restricted to fourteen representatives from different bureaus within the State's Department of Environmental Resources. In Nevada, however, there are 250 participants on the advisory committee representing numerous Federal, State, and local agencies, organizations and private groups. Massachusetts, New Jersey, Louisiana, and Colorado are the other States which also have specifically established formal groups to help allocate §319 grant funds.

The impact of the advisory committees also varies from State to State, their level of involvement mostly being determined by the amount of control the LNPSA chooses to exercise. In Pennsylvania, for example, the LNPSA has no discernibly greater influence than other members of the advisory committee and resource use decisions are made by consensus. In Massachusetts, the LNPSA takes recommendations from the advisory group on potential §319-funded projects but exercises greater authority in selecting which projects to submit to EPA for approval. In Louisiana and Colorado, the LNPSAs and their advisory groups seem to work more closely to develop mutually satisfactory proposals for §319 funded projects.

Encouraging Local Participation

Although the five other States do not have formal advisory committees to determine the use of §319 resources, most have mechanisms to encourage local participation in the implementation of their NPS programs. In three of these States, North Carolina, Wisconsin, and Kansas, the NPS programs offer considerable cost-sharing incentives to encourage local participation, using conservation districts or departments as a major vehicle for interaction with the public. At least two of these States, Wisconsin and Kansas, require substantial local commitment, often through watershed management

associations or local governments, before watershed projects can be initiated. Wisconsin's NPS program also has cultivated strong working relationships with other State organizations, such as the Wisconsin Conservation Corps, and private organizations, such as Trout Unlimited, to win sustained support for implementation of the program's watershed projects. A fourth State, Oregon, also strongly encourages local participation in conducting NPS-related activities by providing small grants to communities or private organizations through its Governor's Watershed Enhancement Board; several of these grants are also supported by §319 resources.

Some Tension Among Agencies

For the most part, State and Federal agencies expressed little dissatisfaction with the extent of cooperation that has occurred in implementing the States' NPS programs. However, as might be expected, some tension over the control of §319 or other resources and overlapping responsibilities among agencies were reported. Examples of this tension include: disagreements between a State's LNPSA and its advisory group regarding the most appropriate use of §319 resources; the Soil Conservation Service's disappointment with its lack of involvement in a State's NPS program; disagreements between the State and the Bureau of Land Management on how best to address NPS problems on Federal lands; and conflicts between the LNPSA and the agencies responsible for administering a State's NPS cost-sharing program.

III FINDINGS ON EPA'S ROLE

A. REGIONAL PROGRAM IMPLEMENTATION

Finding: Although most Regional Offices use several staff to address NPS pollution, few staff are dedicated specifically to assisting States to implement their State Management Programs or §319 grants.

Organizing to Control NPS Pollution

Distinguishing the §319 program from other NPS control efforts at the Regional level is just as difficult as it is at the State level. In addition to implementing the §319 program, EPA is responsible for numerous other programs, such as wetlands, groundwater, clean lakes, national estuaries, coastal zone management, and even RCRA and air toxics, which have components that address certain aspects of NPS pollution. Each program, independently, may assist a State in implementing actions that have an impact on NPS pollution and may address goals of its SMP; or a NPS-related program may coordinate its efforts with other programs to achieve a particular NPS-related goal.

However, the majority of Regional Offices do have some type of NPS group which specifically addresses NPS-related issues. The formality of organization and the extent of interaction among participants of these groups vary widely. NPS groups are variously identified as workgroups, teams, units, or sections, and most are located within the water quality branches (or equivalent) of the Regional Offices' water management divisions.

Groups are primarily composed of representatives of NPS-related water programs; some may include representation from other media programs, such as RCRA. Some groups meet regularly and have specific agenda for discussing NPS problems affecting various programs, such as pesticide use; others meet only on an ad hoc basis to review §319 grant proposals from States. In a few Regional Offices, watershed protection seems to be the major or unifying theme for the groups, to which the concept of NPS control appears as either synonymous or subordinate. In relation to implementing §319, as opposed to other NPS-related efforts, the Regional NPS groups' major role seems to be to review grant proposals to keep other program staff current with relevant activities, to assure technical validity, and to maintain legal consistency with other program requirements.

Staffing

Several Regional Offices have identified up to eight or nine staff which work on NPS-related issues. Many Regional Offices also use detailees from the Soil Conservation Service to conduct NPS control activities. However, in many cases, these staff actually divide their time between implementing NPS- and other non-NPS related duties. For

example, several Regional Offices have State coordinators who are responsible for administering numerous water program grants, such as those for §104, §106, §205, §314, §320, §604(b) in addition to §319, which do not specifically consider NPS pollution. Only a fraction of their time is actually spent directly addressing NPS problems or administering §319.

Furthermore, having eight or nine staff which broadly work on NPS control is not the same as having dedicated staff to implement §319. §319 staff are responsible for approving SMPs and §319 grants and assisting the States to implement them. The actual number of staff dedicated to implementing §319 is much lower, their work year hours ranging from roughly 0.5 full-time equivalents (FTE) in one Regional Office to possibly 4 FTE in others. Each Regional Office has a designated Regional NPS Coordinator, but in several Regional Offices, this individual has several non-§319 related responsibilities.

Finding: Regional Office implementation of the §319 grant program varies considerably across the Regions.

The Regional Offices have been delegated authority to implement §319. Generally, because the Regional Office staff have a better appreciation of individual States' problems and program capabilities, they can provide the flexibility to tailor the program to address States' interests. As part of fulfilling their obligation to implement the §319 program, each Regional Office has developed its own guidance, grant approval processes, and oversight mechanisms to address its implementation needs.

Grant Guidance

Most Regional Offices provide their own grant guidance to States. Although Regional guidance is consistent with national guidance, the Regional Offices vary in the direction they provide to the States. The majority of Regional Offices suggests a format for project proposals as well as identifies Regional priorities that specify pollutant source categories, geographic areas, or programmatic goals that will be favored in States' grant proposals. Two Offices, Regions 6 and 9, also provide State-specific grant guidance. Region 6 guidance is exceptional, in not only helping States to identify geographic targets by referring to the State Assessment Reports, but in providing models for grant project proposals. In contrast, a few Regional Offices' guidance offers little more to States than a restatement of the national guidance.

Grant Approval

Methods for approving grant proposals also vary considerably across the Regional Offices. Beginning in FY 1991, Headquarters directed Regional Offices to award half of the Regional §319 grant allocation to States on a competitive basis. However, Headquarters guidance did not specify how competitive awards should be determined, and, consequently,

Regional Offices established their own procedures. Half of the Regional Offices have some kind of formal evaluation which rates individual projects by assigning points to specific criteria. These criteria vary from Region to Region, and range from being a checklist to assure certain components have been included in a project proposal to questions which focus more on the quality of the project. Other Regional Offices have a much more informal approach, whereby grants are circulated among different program offices and decisions are made after comments are received. All Regional Offices maintain that grants must be consistent with SMPs, but because of the breadth and lack of specificity of many SMPs, this criterion does not seem very useful. A few Regional Offices seem to emphasize the importance of States' past performance in considering approval of grants.

Oversight

Oversight of States' implementation of §319 also varies among Regional Offices. Although Regional Offices assure that grants are consistent with SMPs, few give the impression that SMP implementation is among the Regional Offices' primary concerns for implementing §319. The majority of Regional Offices do not seem to focus on assuring State adherence to SMP milestones or in providing assistance to meet milestones which are not specifically related to the use of §319 resources. In implementing §319, most Regional Offices concentrate on assuring that grants are appropriate, though some also provide assistance to States to improve grant proposals, and others provide other forms of NPS-related technical assistance.

Regional reviews of State NPS programs and Regional reporting requirements for States also differ from Region to Region. There is no consistency among Regional Offices in the content or form of information which they collect in order to assess States' performance in implementing their NPS programs. While some Regional Offices have developed guides for themselves to assess States, others seem to assess States in a much more informal manner. All Regional Offices require States to submit semiannual and annual reports on §319 implementation progress; a few also require quarterly reports on grant implementation. Only two Regional Offices have developed report formats for collecting information on progress States are making at implementing their §319 grants. Most Regional Offices report visiting their States at least once a year; however, many Regional and State staff argue that this is insufficient, and that the lack of travel funds severely limits Regional Offices' ability to conduct adequate oversight.

A few Regional Offices have used conditional approval as a means to influence State grant proposals, while meeting EPA deadlines for grant approval. This mechanism enables Regional Offices to assure that more detailed workplans are developed before resources are released to the States to implement their grant projects. While this process has caused some frustration for States which cannot adequately plan for when resources will become available, it also gives the States an opportunity to improve grant proposals which otherwise might not be funded.

B. OVERALL PROGRAM MANAGEMENT

Finding: EPA provided States the opportunity to develop diverse NPS programs, but has not yet defined a vision or role for a national NPS program.

Engendering Diverse State Programs

EPA's 1987 NPS guidance to States was fairly broad. The guidance provided little elaboration on vague statutory requirements of what the SMPs should contain, nor did it provide much direction on the statute's requirement to develop SMPs on a watershed-by-watershed basis. EPA's philosophy at that time has been characterized as one of giving maximum flexibility to States to develop their own programs for addressing NPS pollution. As mentioned previously, the §319 grant guidance also has supported the flexible character of the national program. The broad objectives and numerous implementation priorities of the guidance describe a wide range of issues that State NPS programs should address. Flexibility for States to determine their priority NPS problems and the strategies by which they ultimately will achieve BMP implementation is important to allow for the differences in environmental, economic, political, and cultural conditions among States. EPA has allowed States the necessary flexibility to design their programs and direct use of their §319 resources, but has allowed diversity to flourish at the expense of the development of a coherent national program.

Vision

EPA's flexible approach has benefitted the aims of individual States, but it has not been effectively complemented by the provision of a clear vision of what the NPS program needs to accomplish. Many States and Regional Offices have expressed frustration by what they perceive as a lack of leadership or sense of purpose for the national program, though they, too, have been unable to reconcile the balance between flexibility and the need for stronger program direction. The Agency's NPS and grant guidance have attempted to provide some direction to States by emphasizing a watershed approach and development of a balanced program, but neither long term goals for the national program nor EPA expectations for State NPS programs have been clearly communicated or reinforced at Headquarters, Regional, or State levels.

EPA has also not successfully identified a supportive role for itself to assist States implement their NPS programs. In January 1989, EPA issued an "Agenda for the Future"²² which contained a list of objectives for providing specific assistance to States as well as an ambitious five-year schedule for implementation. Headquarters upper management has acknowledged that the Agenda's five themes--public awareness, successful solutions, financial forces and incentives, regulatory programs, and good science--are highly relevant

²² EPA, Office of Water, "Nonpoint Sources Agenda for the Future: Nonpoint Source Solutions," January 1989.

to the NPS program but has chosen not to implement the Agenda directly and has not identified an alternative strategy for supporting the States. Some efforts have been made to address certain themes by issuing various technical guidance and outreach materials, most notably the exceptionally well-received "Nonpoint Source News Notes," but program support has generally been provided on an ad hoc basis without any specific implementation strategy being defined.

Headquarters Presence

The §319 program has also suffered from a significant decline in Headquarters attention. For over a year and a half, Headquarters has concentrated on preparing guidance for §317 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). While this guidance should ultimately prove useful to the NPS program as a whole, this focus on CZARA has been perceived by some Regional Offices as serious neglect of §319. In addition, due to a shortage of travel funds, senior managers and staff have made limited visits during the past two years to Regional Offices or States to show support for the program or to conduct reviews of State and Regional performance.

Headquarters also has conducted limited oversight over the NPS program, resulting in limited knowledge of State activities among Headquarters staff and giving the perception of disinterest in the program. Although Headquarters staff "liaisons" communicate from time to time with the Regional Offices, and annual national conferences of Headquarters and Regional NPS staff are held, Headquarters does not routinely or regularly receive or review State grant work programs, State annual reports, or other State or Regional materials from the Regional Offices as a means of keeping informed about program progress. Additionally, Headquarters currently does not have adequate staff in the NPS Control Branch to review those State grant work programs which are submitted by some Regional Offices.

Finally, although the program is delegated to the Regional Offices, Headquarters has played a very minor role in developing a focused national program. In particular, Headquarters has had a limited impact in influencing the original shape of SMPs approved by Regional Offices or the SMPs' ongoing implementation and refinement. Although Headquarters provided comments to the Regional Offices on many States' initial proposed SMPs during the SMP approval process in 1988 and 1989, Headquarters did not conduct adequate follow-up to assure that satisfactory SMPs were finally approved. As a result, although the problem of defining NPS pollution and the means to address it originate with the CWA and with the nature of NPS pollution itself, limited Headquarters input also has contributed to a lack of clear definition for, and inconsistent implementation of, the NPS program.

IV. RECOMMENDATIONS TO EPA

A. EMPHASIZE WATERSHED PROTECTION

Recommendation:

The Office of Water should more clearly and strongly emphasize that a watershed protection approach be the basis of State NPS programs.

In keeping with statutory intent for States to implement their SMPs on a watershed-by-watershed basis to the maximum extent practicable, and to be consistent with OW's policy, expressed through its §319 SMP and grant guidance as well as its watershed protection initiative, OW and Regional Offices should work to have States focus on watershed protection approaches to improve the quality of the waters identified in their Assessment Reports.

Seek SMP Revisions

Rather than encouraging States to define their NPS programs through existing pollutant category-specific programs, OW should require States to revise or enhance their SMPs to reflect a watershed protection approach to the maximum extent possible. Institutionalizing State NPS programs is also an important goal to achieve long-term water quality improvements; program infrastructure should be built up within the context of addressing the NPS problems of watersheds which can maximize demonstrable progress in protecting waterbodies. Successful institutionalization of State NPS programs may be measured by the effective use of LNPSA staff to implement and coordinate programs directed toward watersheds and the extension and adaptation of these programs into other watersheds.

Because the statute is silent on the matter of revisions to the SMPs, OW should also encourage Congress to require all States to revise and update their SMPs, increasing the emphasis on using a watershed protection approach as the basis for State NPS programs. The Office of Water should also encourage Congress to provide resources to States to make these revisions in order to encourage a higher quality effort without jeopardizing implementation of NPS control activities.

Revise SMP Guidance

The Office of Water, in collaboration with Federal, State, and local agencies and interested and affected publics, should develop SMP guidance which more clearly directs States to use a watershed-oriented approach. The guidance should better define EPA's

expectations of what types of goals, strategies, milestones, and measures of success should be included in SMPs. Guidance should more clearly establish a range of activities necessary to be included within a watershed-focused NPS program and should also direct States to set goals for improving the quality of specific waters and identify quantifiable interim milestones to meet those goals.

Achieving BMP implementation to improve water quality is the ultimate goal of a watershed protection approach. However, watershed-oriented programs or projects need not be rigidly defined as fully comprehensive BMP implementation projects which require massive infusions of resources for cost-sharing or monitoring. States will still have the right and responsibility to determine their own priorities for using their resources to achieve BMP implementation through education, technical assistance or transfer programs, financial incentives, or regulations in any watershed.

Revise Grant Guidance

The Office of Water should revise §319 grants guidance to limit the number of priorities and emphasize implementation on a watershed-specific basis. Guidance should expand upon the watershed concepts already offered by the Agency and address how grant projects may appropriately support larger-scale watershed protection efforts. It should also continue to emphasize project selection based on waterbody rankings and environmental risk. The Office of Water should also curtail the number of priority activities contained in the guidance, focusing on those priorities which will assist in the implementation of watershed projects.

B. DEFINE PROGRAM GOALS AND ROLES

Recommendation:

The Office of Water and Regional Offices should clearly define EPA's goals, strategy and role for the national NPS program.

Provide Direction

The Office of Water should exercise its leadership by clearly identifying long-term goals and objectives for the §319 program. The Office of Water should develop a strategic plan to outline what it expects the §319 program to accomplish and what States and EPA need to do in order to meet those expectations. Additionally, a strategic plan would assist in keeping program management and staff focused on meeting NPS program objectives, minimizing opportunities for other programs' priorities to absorb limited resources. EPA can also clarify its vision for the NPS program through revisions to SMP guidance and grant guidance. However, strategic plans and guidance revisions must be accompanied by strong involvement of Headquarters and Regional Offices to adequately convey EPA's objectives to States and work with them to meet those objectives.

Provide Support

Good leadership also means providing support to States as customers to help them implement their programs in a manner consistent with EPA's vision. EPA should work to identify the needs of States to improve their capability to implement their programs and meet the expectations of the national program. Throughout the interviewing process States, Regional Offices, and others mentioned a variety of needs. Many of these concepts build upon the five themes identified in EPA's "Agenda for the Future. These themes are:

- increase public awareness;
- provide information on successful solutions;
- identify financial forces and incentives;
- support state and local regulatory programs; and
- ensure the application of good science.

As part of the role it defines for itself, EPA should continue to focus on implementing these themes, working with States to determine more specifically what kind of assistance the national program or Regional Offices can provide to assist States in

implementing their programs more effectively.²³ Some specific actions EPA could consider include:

1. Expand efforts to assist States in developing and applying TMDLs to address NPS problems on a watershed-specific basis.
2. Develop a case-specific data base of BMPs to be accessed by States and Regional Offices.
3. Develop a compendium of model laws, programs (regulatory, technical assistance, monitoring, education, incentive, and voluntary), and watershed project plans which States and Regional Offices can use as a guide and/or as a reference in making decisions about what State programs lack and what they need.
4. Encourage States to pilot innovative regulatory mechanisms on a watershed-specific basis, possibly through §319 set-aside funds.
5. Promote use of the State Revolving Fund and other innovative sources of resources to support States' implementation of their NPS programs.
6. Continue to develop and encourage the use of protocols to standardize the minimum NPS monitoring requirements necessary to measure changes in water quality.
7. Encourage and provide assistance to States to document results of BMP implementation projects, especially those not supported by §319 grants.
8. Provide assistance to States to develop strategies to publicize the impacts of their NPS control efforts.
9. Convene a group of State and Regional Office representatives to prepare a strategy for revising SMPs to reflect a watershed approach.

²³ The need to fully implement these themes is also recommended in the 1990 General Accounting Office (GAO) report on EPA leadership for reducing NPS pollution. United States General Accounting Office, "Report to the Chairman and Ranking Minority Member, Subcommittee on Investigations and Oversight, Committee on Public Works and Transportation, House of Representatives—Water Pollution: Greater EPA Leadership Needed to Reduce Nonpoint Source Pollution," October 1990.

Involve Others

National program managers should not identify goals, roles, and needs by themselves. The §319 program is still not clearly defined and many diverse issues and interests must be addressed. The Office of Water should use this opportunity to initiate a process to involve Regions, States, and others to identify, clarify, and communicate EPA objectives and State needs for the NPS program. This process should refer to, and build upon, issues already identified and alliances that have been formed since the NPS program was initiated. EPA needs to continue to work closely with other agencies and organizations to assure a high level of cooperation and strong participation to meet commonly understood goals.

C. SHOW SUPPORT FOR PROGRAM

Recommendation:

The Office of Water should more visibly support the NPS program and send a message to the States, Regional Offices, and other Federal agencies that the NPS program is among the Agency's top priorities.

Increase Visibility

Visible support for the NPS program by EPA is very important encouragement for States who are beginning to build their own NPS programs. EPA has the responsibility to focus national attention on controlling NPS pollution and set examples for government agencies as well as the public. To change the focus of water pollution abatement toward the control of nonpoint sources, EPA must demonstrate that NPS pollution control is among the Agency's top priorities. EPA Headquarters should continue and expand its effort to be a national leader in working to control NPS pollution.

In addition to supporting NPS control at the national level, Office of Wetlands, Oceans, and Watersheds managers should increase their visible support for the program at the Regional and State levels. State agencies that have a traditional focus on controlling point sources must receive strong encouragement from EPA to shift their priorities. The NPS program travel budget should be expanded to allow and encourage senior managers and staff to make more frequent visits to Regional Offices and States to promote the program as well as collect information to help sharpen the focus of the program and respond to changes in States' needs.

Emphasize NPS in Agency Operating Guidance

Just as it must encourage States and other Federal agencies to make NPS control a priority, EPA must assure that, within the Agency, NPS control receives appropriate attention. The Agency Operating Guidance is a valuable method by which OW can identify NPS control as an Agency priority. The Office of Water should increase the emphasis given to NPS-related programs within the Agency Operating Guidance to demonstrate its continuing commitment to NPS control. The Office of Water can further support implementation of the NPS program by continuing to emphasize use of the watershed protection approach within the operating guidance and by stressing cooperation among NPS-related programs to implement §319.

Increase Regional Office Resources

The Office of Water should continue to work to provide more FTE and travel resources to Regional Offices to assist States to develop and effectively implement their

State Management Programs. With additional FTE, Regional Offices should be able to develop and maintain core staff dedicated solely to the §319 program, which is a task that goes well beyond mere administration of §319 grants. Headquarters should also strongly encourage Regional Offices to continue the practice of drawing upon other regional expertise in a systematic manner to assist in implementation of States' NPS programs.

Request Resources From Congress

A perceived indicator of EPA's commitment to NPS control is the amount EPA requests from Congress to implement §319. As a demonstration of its continuing and increasing commitment to control NPS pollution, EPA should, at a minimum, request appropriations (including travel funds) at least equal to what the Agency received from Congress in the previous year. To request any fewer resources, especially during the initial phases of the program, has the opposite effect of identifying NPS control as a national priority. It sends a very negative message to the States, which are being encouraged to continue to dedicate resources to develop and implement their programs, while the Federal program dedicates less.

D. IMPROVE PROGRAM OVERSIGHT

Recommendation:

EPA should continue to improve its oversight capability and encourage States to develop quantifiable measures of success.

Identify Measures of Success

In concert with identifying long term goals for the national NPS program and a strategic plan for meeting these goals, OW, Regional Offices, and States need to develop measures of success for the §319 program. Such measures serve two important purposes: to inform Congress and the public of overall successes and challenges in improving water quality, and to help determine program effectiveness and plan for the use of future resources. Measures should indicate cumulative accomplishments of States in attaining water quality and implementation goals as well as progress made by EPA in supporting State implementation of their NPS programs.

Develop Standardized Evaluations

Measures of success should serve as the basis of criteria to include in standardized evaluations of both State programs and Regional Office performance. Working with Regional Offices and States, the Assessment and Watershed Protection Division (AWPD) should determine what criteria are necessary to meet both national accountability needs as well as program evaluation and planning needs. Standardized evaluation formats should be developed for States and Regional Offices, and headquarters staff should conduct such evaluations of Regional Offices and selected States at least annually. They should also be used to build consistency among Regional approaches toward implementing the NPS program. Part of this effort to develop consistent evaluative information should be the completion of the grant tracking system that EPA is currently developing.

Standardize Grant Proposals

Headquarters and Regional staff should also work to define a standardized format and minimum information requirements that must be included in all grant proposals. EPA should work to develop parameters of information necessary for project proposals, including quantifiable outputs, and the level of detail necessary to approve plans. This action would improve consistency of the quality of proposals and assist evaluation of the national program. If grant work programs contain consistent, accurate information, they could be an excellent resource for building an archive to which States or EPA could refer in planning new projects or in trying to improve old ones. Such an archive could also facilitate the transfer of information across States. Finally, more consistent and comprehensive documentation of projects should improve the institutional memory of

both State programs and EPA's program, thus reducing reliance on individuals to carry the program.

Strengthen Headquarters-Regional Link

AWPD should work to improve its interaction with Regional Offices for the transfer of basic program information and to provide greater assistance in reviewing and improving State NPS programs. All AWPD liaisons should be familiar with the State Assessment Reports, State Management Programs, and annual work program grants for all States in the Regions for which they are responsible. Liaisons should conduct spot checks of grant proposals to assure that the Regional Offices and States are addressing national priorities and developing quantifiable outputs for projects. Liaisons should also receive and review State quarterly and annual reports to remain current with the status of State implementation to be able to respond knowledgeably to external inquiries and assist Regional Offices in improving future State activities. Finally, AWPD liaisons should visit Regional Offices and selected States at least once a year to conduct on-site evaluations and maintain personal contacts with Regional and State officials to build program trust and continuity.