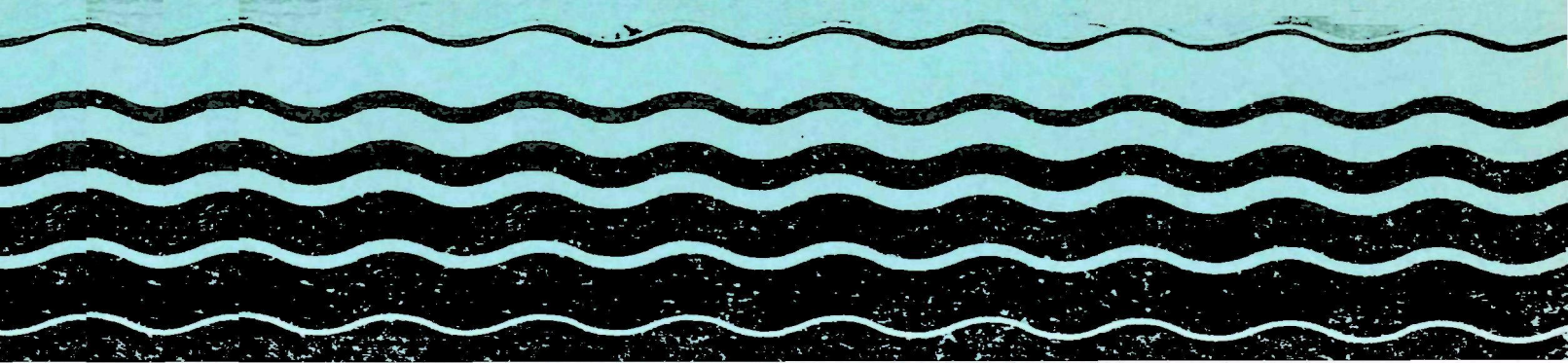




# Agriculture Nonpoint Source Control Strategy

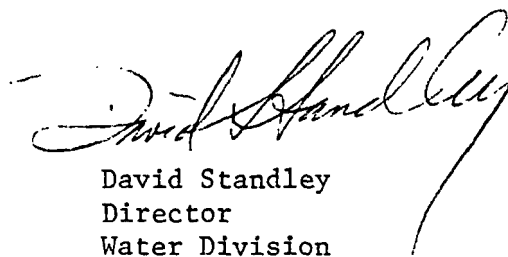




## AGRICULTURAL NONPOINT SOURCE CONTROL STRATEGY

Under Section 208 of the Clean Water Act, nonpoint source control programs are to be developed where needed by State and areawide planning agencies, and the programs implemented by designated management agencies. The States of Region VIII have recognized a need for effective control programs for agricultural sources of water pollution, but have experienced varying degrees of uncertainty as to the direction such a program should take. The strategy presented here is intended as a framework for developing effective State agricultural nonpoint source control programs, and as such, provides general guidance from EPA's perspective.

In addition to providing a framework for development of effective State programs, the strategy provides internal consistency for EPA funding decisions, development of State/EPA Agreements, and other ongoing functional tasks. Since the strategy is based upon an assessment of present-day agricultural nonpoint source programs, periodic updates will be needed to bring the strategy in line with changing conditions. We thank those who commented on earlier drafts of the strategy, and hope that through continued discussions and work, effective nonpoint source programs can be developed that meet the special needs of each State.



David Standley  
Director  
Water Division

## Agricultural Nonpoint Source Control Strategy

### EPA Region VIII

Colorado  
Montana  
North Dakota  
South Dakota  
Utah  
Wyoming

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## I. Introduction

The purpose of this Agricultural Nonpoint Source Control Strategy is to assess ongoing EPA and State agricultural control programs, and to focus on specific actions needed to make the programs more fully effective. Ten essential components of an effective state program are presented. Each State program is then described in terms of these ten essential components. Based on this assessment, specific actions are identified that address program deficiencies, and milestones are suggested. These milestones are advisory only, but coincide largely with existing State/EPA Agreements, work plans, and the timeline for FY 82 "208" funding activities. The strategy is intended as a framework for agricultural nonpoint source program development, so that EPA, State Water Quality Agencies, and agricultural implementation management agencies have a more common point of reference. Very helpful comments and suggestions were received from these agencies which have been incorporated into this final strategy.

The scope of this strategy is more limited than the title might suggest. It addresses primarily programs which are designed to encourage implementation of Best Management Practices on private agricultural land. Region VIII also has large areas of publicly-owned rangeland, most of it administered by the Bureau of Land Management or the USDA Forest Service. Rangeland management is of vital concern from a water quality standpoint, but the control program and management agencies are considerably different from those described herein, so a separate rangeland strategy will be prepared by EPA Region VIII. Agriculture on Indian land is another special case. Some tribal lands will be included in the statewide programs, while other tribes are developing their own agricultural nonpoint control programs. These tribal programs are not assessed in this strategy because they are in the earliest stages of program development.

From a land use standpoint, EPA Region VIII is overwhelmingly rural and agricultural. There are serious point source problems, particularly with substandard waste treatment plants, but more lakes and stream miles are adversely affected by nonpoint pollution than by point sources. Agricultural practices have been shown to accelerate or contribute to problems with salinity, nutrients, and sedimentation in a number of areas. The effects may be localized, as with eutrophication and sedimentation of small lakes in South Dakota, or they may be regional in effect, as with increasing salinity in the Colorado River system. Quantitative figures on agricultural contributions to water quality problems are available only in a few intensively studied areas. Monitoring networks have generally been designed with point sources in mind, so that most of the initial Water Quality Management Plans were forced into a more qualitative assessment of agricultural nonpoint pollution. Even so, it is clear from information now available that the goals of the Clean Water Act cannot be met in many areas of Region VIII unless certain serious agricultural nonpoint sources of pollution are controlled.

Ten essential components of a self-sustaining effective state agricultural nonpoint source control program are identified in Table 1. These criteria provide a framework against which the status of the agricultural nonpoint effort can be assessed and program needs evaluated. Table 1 includes a Region-wide assessment of the ten program components, while Section II includes a more detailed assessment on a state-by-state basis.

One of the first essential steps in effective program development is problem identification and prioritization of problem areas. Given the state-of-the-art in agricultural nonpoint source identification, a highly quantitative problem assessment may not be possible statewide. Some states have supplemented water quality monitoring data with expert opinion from a committee of agricultural experts. Most of the states in Region VIII have identified some problem watersheds. Several of the states have gone on to prioritize these watersheds. Due to limited implementation resources and the need to concentrate our efforts in the most cost-effective areas, geographical prioritization of problem watersheds is necessary. While areawide planning agencies may prioritize their problem watersheds, a statewide prioritization is absolutely necessary. This process must go beyond an ad hoc arrangement for identifying implementation project areas for the Rural Clean Water Program, Special ACP program, or other such programs. There are practically a limitless number of projects that could be proposed which would have some incremental effect on water quality. The following criteria are suggested for prioritizing agricultural nonpoint problem areas:

1. Severity of the water quality impact and degree of water use impairment. In some cases, such as salinity, the costs of each added increment of pollution can be quantified in dollar terms. Often only relative indices or professional judgements will be available.
2. Technical effectiveness of available BMP's. Given that an agricultural problem has been identified, are there any Best Management Practices available that would make a significant impact on the problem?
3. Relative cost-effectiveness of BMP's. Technically, cost-effectiveness is expressed as dollars spent per increment improvement in some water quality parameter. Practically speaking, such figures are seldom available, so some relative estimates of cost-effectiveness are used.
4. Public and landowner support in the area. The degree of local enthusiasm and support is an important consideration, but should not be an overriding one.

TABLE 1: ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM

<u>Component</u>	<u>Status Region-wide</u>
1. Geographical prioritization of problem watersheds.	Most states have identified problem watersheds, but have not prioritized them statewide.
2. Responsibility for control of pollutants or source categories has been assigned to designated management agencies.	Yes, in all states Conservation Districts have been designated either as management agencies or as operational implementation agencies.
3. Management agencies responsible for implementing the program have: --technical expertise in the subject matter to be controlled. --adequate staff and budget. --relevant authorities to administer a regulatory or non-regulatory program, depending on how designated, and --commitment by designated agency.	Conservation Districts are well-suited as management agencies, except that their staffs and budgets are minimal, making them heavily dependent upon limited federal SCS technical assistance programs.
4. Identification of Best Management Practices (statewide general BMP's and more specific in priority problem areas).	Site-specific BMP's are developed in early stages of funded implementation projects. Statewide BMP lists, in states where attempted, tend to be of limited utility, due to generalization.
5. Provisions for adequate technical and financial assistance to implement the control program. Might include state cost-sharing, improved District funding, tax incentives, and/or others.	All six states are heavily dependent upon limited federal cost-share and technical assistance programs for nonpoint implementation. South Dakota has a limited state cost-share program.
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level). This includes: --public participation in water quality management planning and implementation project planning. --educational programs on BMP's.	Public participation in water quality management planning and project planning is generally adequate or meets procedural requirements. BMP education programs are usually developed in conjunction with funded implementation projects. Statewide BMP education programs through Cooperative Extension Service have been started only in North and South Dakota thus far.

(TABLE 1: CONTINUED)

<u>Component</u>	<u>Status Region-wide</u>
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	Monitoring responsibilities are clear in funded project areas. Procedures for monitoring and inspection of priority areas needs to be clearly defined and future monitoring planned for.
8. Consideration of regulatory alternatives in water quality management planning.	Animal wastes are treated as point sources in the NPDES where significant. Lewis and Clark Conservation District in Montana has a regulatory erosion and sediment ordinance which will be evaluated. In South Dakota, a statewide Sediment and Erosion Control Act was passed in 1976, and regulatory guidelines published in July 1977. Many 208 Plans give only passing consideration to regulatory alternatives.
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Milestones found in State/EPA Agreements and 208 work plans tend to be limited to 208 program management needs.
10. Agreement on a reporting system (at least annual) on progress made in implementation.	There are a number of reporting requirements associated with Section 208 program grants, but these tend not to track on-the-ground implementation efforts and results. No Regional implementation reporting system is yet in place.



Our ability to document water quality problems and improvements from application of BMP's, and our ability to predict BMP's technical and cost-effectiveness should improve as experience is gained in the nonpoint source control program. A conscious effort must be made not only to incorporate this newly-developing information into the planning process, but to make better use of the information already available in the 208 Plans, water quality monitoring data, and from the variety of persons who have knowledge of local conditions. Implementation priorities should be reviewed at least annually, as new information comes to light.

Management agencies for agriculture have been designated in all the states; either Conservation Districts, the State Conservation Commission, or counties that will in turn depend upon Conservation Districts for actual implementation. There is considerable variation within Region VIII as to designation of agricultural management agencies and the role that they are prepared to take. In all cases Conservation Districts are implementation agencies at the local level, and in many ways they are well suited as nonregulatory implementation agencies. They have access to technical expertise, a high level of commitment, and the necessary authorities to administer an effective voluntary nonpoint control program. The adequacy of District staffs and budgets is a potential implementation program deficiency, however. In Region VIII, most of the Districts are highly dependent upon the Soil Conservation Service for nonclerical staffing needs, having few or no District professional employees. Since SCS is operating under a very tight budget and personnel ceiling, their ability to supply resources to special water quality implementation project areas is quite limited. At present, there are no clear mechanisms for increasing State/local support to Conservation Districts for water quality purposes.

Most of the Water Quality Management (208) Plans of Region VIII identified a large number of soil and water conservation practices as being Agricultural Best Management Practices for water pollution control. These conservation practices have been promoted by soil conservation districts for many years, and are known to be effective for control of soil loss and runoff. A practice that is effective in holding soil in place may not, however, be effective in controlling movement of dissolved nutrients, salts, or commonly used pesticides if they are only moderately adsorbed to soil particles. Even where sediment is the only pollutant of concern, it is often more cost-effective to control sediment delivery to the stream (through buffer strips, detention basins, or selective treatment of croplands with the highest sediment delivery to the stream) than to control soil erosion everywhere on the watershed. Thus, a cost-effective agricultural nonpoint source control program might include erosion control, but is not necessarily identical. Both erosion control and water pollution control are vital environmental goals of the Conservation Districts, and both need to be considered in District planning and goal setting, but with a recognition that they are not always synonymous.

Both structural and nonstructural BMP's may be necessary to control the full range of agricultural water pollutants. Nonstructural BMP's such as integrated pest management, improved pesticide application and disposal, nutrient management, and irrigation scheduling tend to be more difficult to implement and maintain than structural improvements, but are the most effective control measures for some pollutants. Under a system of voluntary BMP adoption, demonstration and education efforts are essential to the nonstructural BMP implementation program. The North Dakota and South Dakota water quality agencies have contracted with the Cooperative Extension Service to provide statewide BMP education services. In some other states, BMP education has been handled by the Soil Conservation Districts as part of the technical assistance package associated with structural BMP installation. Each approach has certain advantages and strengths, so that a coordinated effort that involved both Cooperative Extension and Conservation Districts could be more effective than either alone.

At present, the nonpoint implementation programs in all six states of Region VIII are heavily dependent upon limited federal cost-share and technical assistance programs. Several implementation projects are underway, using cost-share funds from the Agricultural Conservation Program (ACP), Rural Clean Water Program (RCWP), Clean Lakes Program, and the Model Implementation Program. The largest of these are Muddy Creek (Montana), Grand Valley (Colorado), Uintah Basin (Utah), Snake Creek (Utah), and Lake Herman (South Dakota). A number of other projects which rely heavily on federal funding have been approved or are pending approval. Unfortunately, the identified needs far exceed the federal implementation resources available to do the work.

South Dakota has undertaken a limited state cost-share program for feedlot and lake improvement projects, but there is considerable apprehension in the states about non-federal cost-sharing of BMP's. There are similar apprehensions about increased non-federal support for Conservation District programs. The agricultural community has traditionally relied on federal funds and personnel to support this type of activity, so there has been very little analysis of financial and institutional alternatives. Water Quality Management Agencies concentrated initially on developing technical solutions to water quality problems at the expense of developing the processes necessary to actually implement the proposed programs and practices. While technically sound, most Water Quality Management (208) Plans fail to address the financial and institutional questions which figure so prominently in actually solving problems, and also fail in establishing a self-sustaining continuing planning process. The lack of adequate financial and institutional analysis makes it difficult for local water quality management planners and decision-makers to credibly demonstrate alternative costs and cost/benefit trade-offs. This in turn makes it hard to obtain a local commitment to implement the completed plan. A number of financial and institutional mechanisms for implementing an agricultural nonpoint control program will be explored at the Regional

Agricultural Nonpoint Implementation Workshop to be held by EPA and the National Association of Conservation Districts (NACD) in December, 1980. At that workshop, the states will have an opportunity to explore what other states have done in the areas of state cost-sharing, improved Conservation District funding, tax incentives and disincentives for landowners, etc.; and to develop their own approach to overcoming some of the financial and institutional barriers to nonpoint implementation.

The status of other essential components of a state agricultural nonpoint source control program is summarized Region-wide in Table 1. Section II of this strategy is a state-by-state assessment of the agricultural nonpoint programs. Based on this assessment, specific actions are identified that address program deficiencies, and milestones are suggested. Section III of the strategy presents specific actions that need to be taken by EPA Region VIII to bring about development of an effective agricultural nonpoint implementation program.

COLORADO

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
1. Geographical prioritization of problem watersheds.	Yes	Periodic review	January 1981
2. Responsibility for control of pollutants or source categories has been assigned to designated management agencies.	Yes		
3. Management agencies responsible for implementing the program have: --technical expertise in the subject matter to be controlled. --adequate staff and budget. --relevant authorities. --necessary commitment.	The state Soil Conservation Board is responsible for assisting and coordinating areawide and local planning, and for technical assistance for agricultural nonpoint source control throughout the state. Counties are the designated management agencies and have generally transferred operational responsibilities to local Conservation Districts. Conservation District staffs and budgets are minimal, and the program is heavily dependent upon federal cost-sharing and technical assistance programs.	<u>Develop management agency effectiveness in priority problem areas targeted for major implementation activities:</u>  Participate in EPA-NACD Agricultural Implementation Workshop and prepare state strategy for development of management agency effectiveness.  Evaluate major accomplishments as outlined in above strategy.	December 1980  May 1981
4. Identification of BMP's	Yes, statewide and in funded project areas.	Soil Conservation Board and Districts will develop data on severity of problems, needs assessments, and BMP recommendations on the following critical agricultural areas: Little Thompson, Grand Valley, Tongue Creek, Mancos Valley, Lower Four Mile Creek, School House Canyon, and North Fork of Republican River.	Fall 1981

Colorado, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
5. Provisions for adequate technical and financial assistance to implement the control program.	Program is heavily dependent upon limited federal cost-sharing and technical assistance programs.	<p><u>Develop adequate technical and financial assistance mechanisms for agricultural nonpoint pollution control needs:</u></p> <p>Explore alternative means of promoting construction or adoption of BMP's.</p> <p>Develop legislative or administrative proposals.</p> <p>Track progress of the Grand Valley and Four Mile Canyon projects and disseminate results to build support for assistance proposals.</p>	<p>December 1980</p> <p>May 1981</p> <p>Ongoing, final formal report: September 1982</p>
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level).	Public participation is an ongoing part of the "208" planning process, but is most effective for well-defined project areas. BMP education programs are developed mainly in funded project areas.	Define educational program needs in priority problem areas, and secure resources through interagency agreements or other means.	December 1980
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	Grand Valley salinity control project is well monitored. Intensive monitoring would be useful in at least one other priority project for pollutants other than salinity.	Evaluate monitoring and inspection needs in areas targeted for implementation activities, and assign responsibility for monitoring to determine BMP effectiveness.	Ongoing



Colorado, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
8. Consideration of regulatory alternatives in water quality management planning.	Livestock wastes only.		
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Limited	Prepare a state agricultural nonpoint source control strategy: Draft: Final:	January 1981 March 1981
10. Agreement on a reporting system to monitor progress made in implementation.	Some of the needed information exists in 208 Plan updates, 305b reports, State/EPA Agreements, work plans, and Conservation District reporting.	Assess information needs of all involved agencies, and discuss with EPA Regional staff.  Comment on EPA Regional guidance on implementation reporting.  Develop and implement reporting system.	December 1980  January 1981 March 1981

MONTANA

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
1. Geographical prioritization of problem watersheds.	Unprioritized list of problem areas.	Set statewide priorities.	January 1981
2. Responsibility for control of pollutants or source catagories has been assigned to designated management agencies.	Yes, Conservation Districts		
3. Management agencies responsible for implementing the program have: --technical expertise in the subject matter to be controlled. --adequate staff and budget. --relevant authorities. --necessary commitment.	Conservation District staffs and budgets are minimal, and the Districts are heavily dependent upon federal SCS technical assistance programs.	<u>Develop management agency effectiveness in priority problem areas targeted for major implementation activities:</u>  Participate in EPA-NACD Agricultural Implementation Workshop and prepare state strategy for development of management agency effectiveness.  Evaluate major accomplishments as outlined in above strategy.	December 1980  May 1981
4. Identification of BMP's.	Yes		
5. Provisions for adequate technical and financial assistance to implement the control program.	Program is heavily dependent upon limited federal cost-sharing and technical assistance programs. Special ACP funds are being used for Muddy Creek Project.	<u>Develop adequate technical and financial assistance mechanisms for agricultural nonpoint pollution control needs:</u>  Explore alternative means of promoting construction or adoption of BMP's.  Develop legislative or administrative proposals.	December 1980  May 1981

Montana, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS STRATEGY	STATUS	ACTION NEEDED	MILESTONES
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level).	BMP education programs are well defined in funded project areas, but are not well developed statewide.	Define educational program needs in priority problem areas, and secure resources through interagency agreements or other means.	December 1980
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	Monitoring responsibilities are clear in active implementation areas.	Evaluate monitoring and inspection needs in areas targeted for implementation activities, and assign responsibility for monitoring to determine BMP effectiveness.	Ongoing
8. Consideration of regulatory alternatives in water quality management planning.	Effectiveness of Lewis and Clark Conservation District's regulatory sediment control ordinance is being monitored.		
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Limited.	Prepare a state agricultural nonpoint source control strategy: Draft Final	January 1981 March 1981
10. Agreement on a reporting system to monitor progress made in implementation.	Some of the needed information exists in 208 Plan updates, 305b reports, State/EPA Agreements, work plans, and Conservation District reporting.	Assess information needs of all involved agencies, and discuss with EPA Regional staff. Comment on EPA Regional guidance on implementation reporting. Develop and implement reporting system.	December 1980 January 1981 March 1981

NORTH DAKOTA

ESSENTIAL COMPONENTS OF A STATE  
AGRICULTURAL NPS CONTROL PROGRAM

STATUS

ACTION NEEDED

MILESTONES

1. Geographical prioritization of  
problem watersheds.

Target areas have been identified  
for possible implementation  
projects. A need remains to  
prioritize these areas on the  
basis of water quality problems  
and local interest.

Prioritize areas with critical agricultural  
nonpoint problems.

January 1981

2. Responsibility for control of  
pollutants or source categories has been  
assigned to designated management agencies.

Yes, Conservation Districts.

3. Management agencies responsible for  
implementing the program have:  
--technical expertise in the subject  
matter to be controlled.  
--adequate staff and budget.  
--relevant authorities.  
--necessary commitment.

Conservation District staffs and  
budgets are minimal, and the  
Districts are heavily dependent  
upon federal SCS technical  
assistance programs.

Develop management agency effectiveness in priority  
problem areas targeted for major implementation  
activities:

Participate in EPA-NACD Agricultural Implementation  
Workshop and prepare state strategy for development  
of management agency effectiveness.

December 1980

Evaluate major accomplishments as outlined in above  
strategy.

May 1981

4. Identification of BMP's.

Yes.

North Dakota, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
5. Provisions for adequate technical and financial assistance to implement the control program.	Except for a very limited cost-share program for watershed protection above wildlife-use reservoirs, the agricultural implementation program is heavily dependent upon federal cost-sharing and technical assistance programs.	<u>Develop adequate technical and financial assistance mechanisms for agricultural nonpoint pollution control needs.</u>  Explore alternative means of promoting construction or adoption of BMP's.  Develop legislative or administrative proposals.	  December 1980  May 1981
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level).	The state 208 agency has contracted with the N.D. Cooperative Extension Service to provide some of these services statewide.	Develop a Phase II contract with the Extension Service for support of the statewide program and watershed projects.	October 1980
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	Monitoring responsibilities are clear in active implementation areas.	Evaluate monitoring and inspection needs in areas targeted for implementation activities, and assign responsibility for monitoring to determine BMP effectiveness.	Ongoing
8. Consideration of regulatory alternatives in water quality management planning.	Livestock wastes only.		



North Dakota, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Limited	Prepare a state agricultural nonpoint source control strategy: Draft Final	January 1981 March 1981
10. Agreement on a reporting system to monitor progress in implementation.	Some of the needed information exists in 208 Plan updates, 305b reports, State/EPA Agreements, work plans, and Conservation District reports.	Assess information needs of all involved agencies, and discuss with EPA Regional staff.  Comment on EPA Regional guidance on implementation reporting.  Develop and implement reporting system.	December 1980  January 1981 March 1981

SOUTH DAKOTA

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
1. Geographical prioritization of problem watersheds.	Yes	Periodic review	January 1981
2. Responsibility for control of pollutants or source categories has been assigned to designated management agencies.	Yes. More specific management agency responsibilities are spelled out during Phase II activities in Water Quality Study Areas (WQSA).		
3. Management agencies responsible for implementing the program have: --technical expertise in the subject matter to be controlled. --adequate staff and budget --relevant authorities --necessary commitment.	Conservation District staffs and budgets are minimal, and the program is heavily dependent upon federal cost-sharing and technical assistance programs. Several 208-funded contracts with Conservation Districts have been very effective in providing for on-the-ground coordination of implementation activities.	<u>Develop management agency effectiveness in WQSA's targeted for major implementation activities:</u>  Participate in EPA-NACD Agricultural Implementation Workshop and prepare state strategy for development of management agency effectiveness.  Evaluate major accomplishments as outlined in the above strategy.	December 1980  May 1981
4. Identification of BMP's.	Site-specific BMP's are identified during Phase II activities in WQSA's.		
5. Provisions for adequate technical and financial assistance to implement the control program.	A limited state cost-share program is in place for animal waste and lake improvement projects.	<u>Develop adequate technical and financial assistance mechanisms for agricultural nonpoint pollution control needs:</u>  Explore alternative means of promoting construction or adoption of BMP's.  Complete Phase I of Agricultural FMAP Study	December 1980  September 1981

South Dakota, continuad

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS PROGRAM	STATUS	ACTION NEEDED	MILESTONES
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level).	The Water Quality Study Areas provide a good focus for obtaining public input and support. With more WQSA's reaching implementation phase, resource requirements for education will increase. These programs will be developed by local management agencies, but will require assistance from other state and federal agencies.	Develop a contract with the Extension Service to provide program support statewide.	June 1981
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	Monitoring responsibilities are clear in active implementation areas.	Evaluate monitoring and inspection needs in areas targeted for implementation activities, and assign responsibility for monitoring to determine BMP effectiveness.	Ongoing
8. Consideration of regulatory alternatives in water quality management planning.	Yes	Periodic review of progress made in implementing the South Dakota Sediment and Erosion Control Act.	Ongoing
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Limited	Prepare a state agricultural nonpoint source control strategy: Draft Final	January 1981 March 1981
10. Agreement on a reporting system to monitor progress made in implementation.	Some of the needed information exists in 208 Plans, 305b reports, State/EPA Agreements, work plans, and Conservation District reports.	Assess information needs of all involved agencies, and discuss with EPA Regional staff. Comment on EPA Regional guidance on implementation reporting. Develop and implement reporting system.	December 1980 January 1981 March 1981

UTAH

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
1. Geographical prioritization of problem watersheds.	Considerable progress has been made in the development of detailed agricultural assessments for two areawide 208's, Mountainland and Uintah Basin. The Utah Dept. of Agriculture is currently developing detailed statewide agricultural assessments in concert with water quality agencies. Thus, a statewide prioritization has not yet been attempted.	Complete agricultural nonpoint assessment and prioritization of problem watersheds.	March 1981
2. Responsibility for control of pollutants or source categories has been assigned to designated management agencies.	Soil Conservation Districts have been designated as management agencies.		
3. Management agencies responsible for implementing the program have: --technical expertise in the subject. --adequate staff and budget. --relevant authorities. --necessary commitment.	Conservation District staffs and budgets are minimal, and the program is heavily dependent upon federal cost-sharing and technical assistance programs.	<u>Develop management agency effectiveness in priority problem areas targeted for major implementation activities:</u>  Participate in EPA-NACD Agricultural Implementation Workshop and prepare state strategy for development of management agency effectiveness.  Evaluate major accomplishments as outlined in above strategy.	December 1980  May 1981
4. Identification of BMP's.	Complete for some areawide plans, but not statewide.	Complete a statewide identification as part of Utah Dept. of Agriculture subagreement.	March 1981

Utah, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS PROGRAM	STATUS	ACTION NEEDED	MILESTONES
5. Provisions for adequate technical and financial assistance to implement the control program.	Utah has two major implementation projects: Snake Creek Rural Clean Water Program and Uintah Basin Special ACP Project. The agricultural implementation program is heavily dependent upon federal cost-sharing and technical assistance programs.	<p><u>Develop adequate technical and financial assistance mechanisms for agricultural nonpoint pollution control needs:</u></p> <p>Explore alternative means of promoting construction or adoption of BMP's.</p> <p>Develop legislative or administrative proposals.</p>	<p>December 1980</p> <p>Milestone yet to be established.</p>
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level).	BMP education programs are well defined in funded project areas, but public participation and BMP education programs are not well developed statewide.	Define educational program needs in problem priority areas, and secure resources through interagency agreements or other means.	December 1980
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	Monitoring responsibilities are clear in active implementation areas.	Evaluate monitoring and inspection needs in areas targeted for implementation activities, and assign responsibility for monitoring to determine BMP effectiveness.	Ongoing
8. Consideration of regulatory alternatives in water quality management planning.	Livestock wastes only.		



Utah, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Limited	Prepare a state agricultural nonpoint source control strategy: Draft Final	January 1981 March 1981
10. Agreement on a reporting system to monitor progress made in implementation.	Some of the needed information exists in 208 Plans, 305b reports, State/EPA Agreements, work plans, and Conservation District reports.	Assess information needs of all involved agencies, and discuss with EPA Regional staff. Comment on EPA Regional guidance on implementation reporting. Develop and implement reporting system.	December 1980 January 1981 March 1981

WYOMING

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
1. Geographical prioritization of problem watersheds.	Some problem areas have been identified, but a geographic prioritization based on a water quality assessment has not been completed.	Complete agricultural nonpoint assessment and prioritization of problem watersheds.	January 1981
2. Responsibility for control of pollutants or source categories has been assigned to designated management agencies.	The Wyoming State Conservation Commission is responsible for assisting and coordinating areawide and local planning, and for technical assistance for agricultural nonpoint source control throughout the state. Counties are the designated management agencies, and would transfer operational responsibilities to local Conservation Districts.		
3. Management agencies responsible for implementing the program have: --technical expertise in the subject matter to be controlled. --adequate staff and budget. --relevant authorities. --necessary commitment.	Conservation District staffs and budgets are minimal, and the Districts are heavily dependent upon federal SCS technical assistance programs.	<u>Develop management agency effectiveness in priority problem areas targeted for major implementation activities:</u>  Participate in EPA-NACD Agricultural Implementation Workshop and prepare state strategy for development of management agency effectiveness.  Evaluate major accomplishments as outlined in above strategy.	December 1980  May 1981

Wyoming, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
4. Identification of BMP's.	No identification of BMP's on a statewide basis. Site-specific BMP's would be developed on a project basis.		
5. Provisions for adequate technical and financial assistance to implement the control program.	Program is heavily dependent upon limited federal cost-sharing and technical assistance programs. No Special ACP, RCWP, or Clean Lakes Program projects have been approved to date, however.	<p><u>Develop adequate technical and financial assistance mechanisms for agricultural nonpoint pollution control needs:</u></p> <p>Explore alternative means of promoting construction or adoption of BMP's.</p> <p>Develop legislative or administrative proposals.</p>	<p>December 1980</p> <p>May 1981</p>
6. Provisions for an effective educational program to inform and involve the affected publics (statewide and priority watershed level).	Section 208 planning meets procedural requirements for public participation. BMP education programs have not been developed.	Define educational program needs and secure resources through interagency agreements or other means.	December 1980
7. Assignment of responsibilities and formulation of procedures for BMP monitoring and inspection on priority projects.	No operational implementation projects are underway yet.	Evaluate monitoring and inspection needs in areas targeted for implementation activities, and assign responsibility for monitoring to determine BMP effectiveness.	Ongoing

Wyoming, continued

ESSENTIAL COMPONENTS OF A STATE AGRICULTURAL NPS CONTROL PROGRAM	STATUS	ACTION NEEDED	MILESTONES
8. Consideration of regulatory alternatives in water quality management planning,	Livestock wastes only.		
9. Agreement on a schedule of milestones for implementation to address program deficiencies and priority watershed implementation.	Limited	Prepare a state agricultural nonpoint source control strategy:  Draft Final	January 1981 March 1981
10. Agreement on a reporting system to monitor progress made in implementation.	Some of the needed information exists in 208 Plan updates, 305b reports, State/EPA Agreements, work plans, and Conservation District reporting.	Assess information needs of all involved agencies, and discuss with EPA Regional staff.  Comment on EPA Regional guidance on implementation reporting.  Develop and implement reporting system.	December 1980  January 1981 March 1981

III. EPA Region VIII Agricultural Nonpoint Implementation Program Needs  
(EPA Agency Staff)

ACTION NEEDED

MILESTONE FOR COMPLETION

Insure that implementation efforts are prioritized on the basis of water quality assessment and other criteria.

Prepare state-specific guidance on water quality assessment report needs for FY 82 water quality management process and State/EPA Agreement.

October 31, 1980

Meet with individual state water quality agencies to review water quality assessments and agree on priority water quality problems to be addressed in the FY 82 State /EPA negotiations and FY 82 Section 208 funding process.

January 31, 1981

Insure that implementation efforts are based upon sound statewide strategies that lead toward effective self-sustaining programs.

Prepare guidance on agricultural nonpoint source control strategies to be prepared as part of FY 82 208 funding process.

November 30, 1980

Complete EPA review of draft state agricultural nonpoint strategies.

February 1, 1981

Improve management agency effectiveness, with emphasis on development of adequate technical and financial assistance mechanisms.

Develop final Regional guidance on management agency designation and roles.

October 15, 1980



Organize and hold a regional workshop for agricultural management agencies, jointly with the National Association of Conservation Districts. The workshop will address financial and institutional mechanisms for improving management agency effectiveness.

December 3, 1980

Encourage closer coordination between water quality agencies and agricultural agencies through cooperative agreement process or other means.

Ongoing

Provide a direct channel of communication between EPA and interest groups through a bi-monthly newsletter and personal contact.

Ongoing

Track and evaluate implementation efforts.

Where possible, participate directly in implementation planning through ACP and RCWP coordinating committees and Colorado River Basin Salinity Control Program.

Ongoing

Develop Regional guidance on an adequate implementation reporting system:

Draft  
Final

December 1980  
February 1981