

3. DEVELOPMENT PROCESS

This chapter describes the process that will be followed for development of each State's Core CSGWPP and Fully-Integrating CSGWPP. The CSGWPP process is flexible and allows each State to develop its program according to its unique hydrogeologic, demographic, and institutional characteristics.

Development of both CSGWPP levels should build on the often extensive ground water protection efforts already being conducted within a State. The starting point should be a State's existing ground water protection strategy and the recent profile developed by EPA and the State that describe the current ground water programs and activities within the State.¹ The development process entails the following six general steps, which may be undertaken in combination or separately:

- **Establishing a State-Specific "Vision" or "Template"**: Based on a State's ground water strategy and profile, this Guidance, and negotiations with the appropriate EPA Regional Offices, each State should establish a more specific "vision" or "template" for what its Fully-Integrating CSGWPP will ultimately comprise. This will reflect not only its unique environmental and institutional circumstances, but also what roles and responsibilities the State wants, and believes itself capable of undertaking, in ground water protection decision-making. Because this vision sets the State's long-term direction for its CSGWPP, all relevant programs within the State, as well as the public, need to be involved in its formulation.
- **Assessing**: Each State should compare its more specific CSGWPP vision to the information it collected during profiling to develop a written assessment of the activities the State must undertake to achieve, first, a Core CSGWPP and, eventually, its vision or template for a Fully-Integrating CSGWPP. A State, in working with the Region, may document in its written assessment that it already has achieved a Core CSGWPP. States should have a continuous dialogue with EPA Regional Offices so that the EPA can assist States, when possible, and provide direction for each of the Agency's ground water-related programs. The State's vision and assessment will comprise a single document. The assessment will be organized to clearly show what the State has done or needs to do to meet each of the Core adequacy criteria for all six Strategic Activities. Descriptions of how the State has met Core adequacy criteria will be included.

¹Because Native American Tribes have not yet developed profiles, EPA will be exploring options with Tribes and with agencies such as BIA and IHS or assisting them in describing their ground water protection programs and activities on Indian lands.

- **Achieving a Core CSGWPP:** For many States, the written assessment is likely to be the document describing their Core CSGWPP. In this case, no other documentation will be needed. If a State is unable to demonstrate a Core CSGWPP through its assessment, the State will submit an updated document to demonstrate that the remaining Core adequacy criteria have been met. There will be flexibility in how States meet each adequacy criterion; specific approaches are to be worked out in a negotiated partnership between a State and its EPA Regional office. EPA will formally endorse a State's achievement of a Core CSGWPP. Formal EPA endorsement will provide EPA, the States, other federal agencies, the Congress, and State legislatures with a foundation for understanding State capabilities and, thereby, gain further support for the movement towards a Fully-Integrating CSGWPP. Demonstration of a State's tangible commitment to comprehensive ground water protection, as evidenced by its endorsed Core program, will be key to bringing relevant federal programs and agencies to the table to negotiate a Multi-Year Program Agreement, described below.

It is expected that each State will attain an EPA endorsed Core CSGWPP as early as possible, but no later than the end of 1995.

- **Developing A Multi-Year Program Agreement:** Following EPA endorsement of its Core CSGWPP, each State should co-develop with EPA a written multi-year program agreement that describes how the State will further implement and over time improve the Strategic Activities of its Core CSGWPP. It will also identify the specific actions EPA will take to support the State's efforts across all relevant programs, including milestones for increased program flexibility. In establishing the multi-year program agreement, EPA and the State will utilize the State's assessment, described above, and EPA's Regional program reviews and multi-program ground water regulatory agenda described in Chapter 1 of this Guidance. Other federal agencies, including federal land management agencies and federal facilities, will be encouraged to join in making commitments through the agreement to support the State's CSGWPP. Finally, through the Ground Water Subcommittee of the State/EPA Operations Committee, EPA will seek State review and feedback on EPA's efforts to support the CSGWPP approach.

EPA and each State will negotiate the contents of the multi-year program agreement and specific milestones based on the State's unique circumstances. The program agreement will serve as the basis for yearly workplan agreements for all ground water-related activities under the Agency's various programs. The completed multi-year program agreement should guide all State and federal programs related to ground water in more fully meeting the adequacy criteria of the Strategic

Activities, and in supporting the achievement of a Fully-Integrating CSGWPP. The multi-year program agreement should include as many specific implementation milestones for ground water efforts as possible.

- **Implementing Yearly Workplans:** The annual State/EPA agreements or all program workplans relevant to ground water protection currently used by EPA and the States will be the primary vehicles for implementing the multi-year CSGWPP program agreements. Yearly workplans should include a description of the mechanism established to coordinate authorities and programs under State and federal statutes, and should include implementation activities that move a State toward meeting milestones in its multi-year program agreement. Each completed yearly workplan will outline specific activities to be accomplished in that year to move the State towards implementing comprehensive protection of the ground water resource. EPA will specify the increased flexibility being afforded to the State in any given year based on individual program requirements and progress toward achieving a Fully-Integrating CSGWPP.
- **Achieving a Fully-Integrating CSGWPP.** EPA and each State will negotiate through yearly workplans how to fill the gaps in a State's CSGWPP and how to provide additional federal program flexibility to the State. Achievement of a Fully-Integrating CSGWPP will be negotiated by EPA and each State in consultation with other federal agencies. A Fully-Integrating CSGWPP occurs when all federal, State, and local ground water protection efforts are coordinated and when all decision-making is based on a State's understanding of the ground water resource, all actual or potential contamination sources, and the State's comprehensive ground water protection goal, priorities, and approaches. EPA and each State will negotiate the milestone of achieving a Fully-Integrating CSGWPP in the yearly workplan process. While each State's Fully-Integrating CSGWPP will be different, all Fully-Integrating CSGWPPs will meet all of the Fully-Integrating adequacy criteria outlined in Chapter 2.

Figure 3-1 is a schematic outlining the processes for the development and EPA endorsement of a State's Core CSGWPP and for moving from a Core to a Fully-Integrating CSGWPP. Given the fundamental importance of individual ground water-related programs, EPA will ensure that all relevant Agency programs (e.g., solid and hazardous waste, pesticides, underground storage tanks, nonpoint sources, etc.) are involved in all plan developments, agreements, reviews and endorsements. EPA will also encourage other federal agencies to examine the State's CSGWPP to determine where they may provide flexibility or a decision-making role to the State.

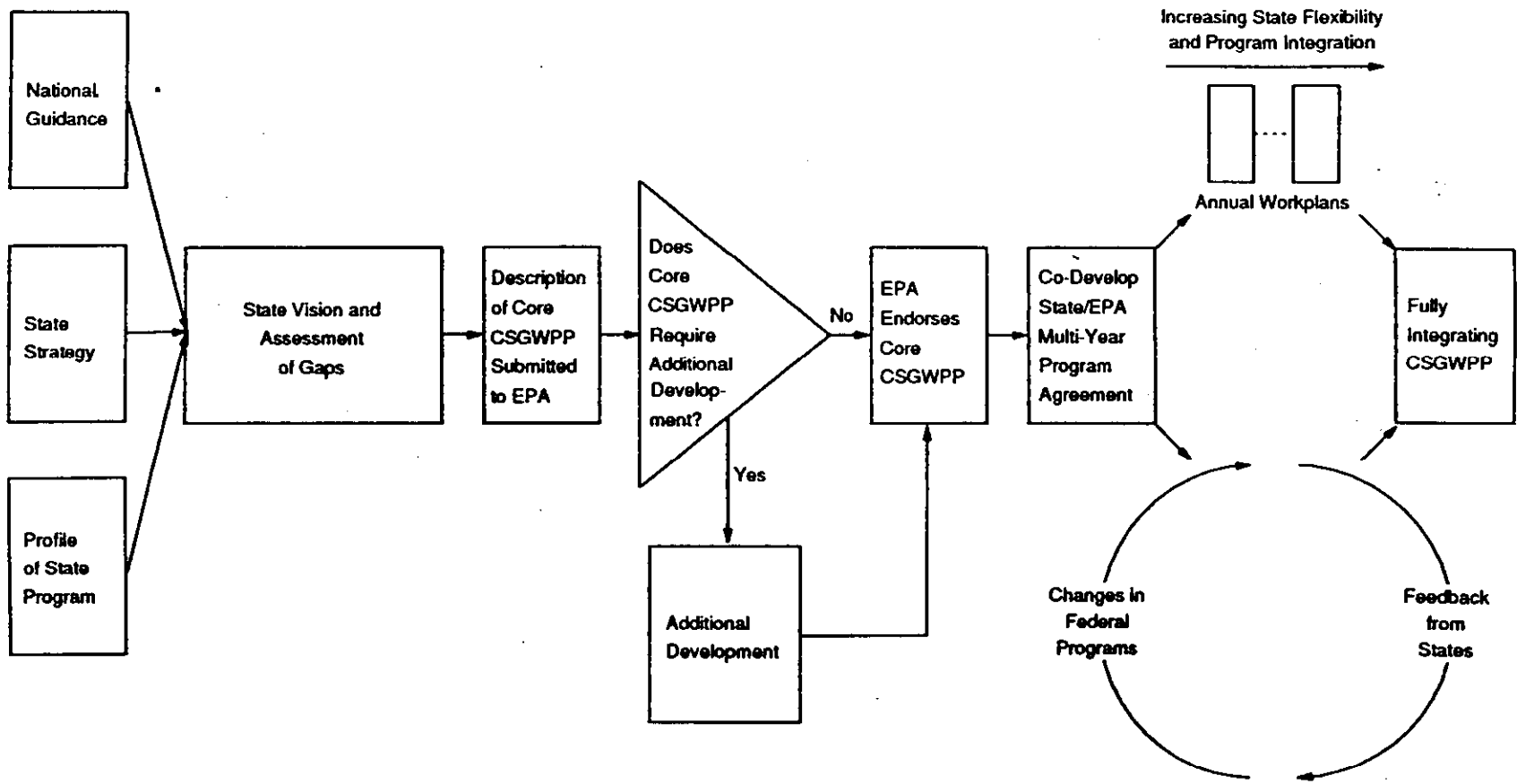


Figure 3-1. Development of Core and Fully Integrating CSGWPPs

4. LINKAGE TO EPA AND OTHER FEDERAL AGENCY PROGRAMS

The primary benefit of the CSGWPP approach will be even more effective protection of the Nation's ground water resources based on a resource-oriented decision-making process. The other principal benefit to the States of the CSGWPP approach is that it provides a significant catalyst for increased State flexibility and decision-making under numerous federal programs. This allows States to tailor protection efforts to meet their unique ground water protection needs and priorities. The CSGWPP approach will achieve these benefits by linking other federal programs into a partnership with the States by having:

- CSGWPPs provide a framework within which all ground water protection efforts and activities (federal, State and local) can be coordinated. This coordination will reduce unnecessary duplication of effort and foster synergistic use of program resources to address ground water protection needs within the State.
- CSGWPPs provide the foundation for State-directed, resource-based priorities consistently applied across all federal and State ground water-related programs within the State. This occurs when a State's knowledge of its ground water resources (e.g., vulnerability, uses, benefits) is being employed to determine the objectives, priorities, and approaches for ground water protection programs operating within the State.

Both of these linkages result in greater efficiency and effectiveness in managing ground water protection programs so that EPA's ground water protection goal will be realized. EPA will work with other federal agencies to adopt a consistent approach for federal deference to State ground water decision-making across all relevant federal programs and regulations. While this effort will lead to incremental increases in State flexibility under the various individual federal programs, it is only through pursuit of a CSGWPP that a State will achieve the full, consistent, and integrated flexibility to address its ground water protection priorities across all relevant programs. This Chapter's primary focus is to describe how CSGWPPs put States in the lead position of making resource-oriented decisions concerning ground water protection efforts.

4.1 Coordination of EPA Programs

EPA continues to implement its own intra-Agency approach to comprehensive ground water protection. To promote coordination within the Agency, EPA established the Ground Water Policy Committee. The Policy Committee works to coordinate the Agency's ground water activities and to resolve issues of overlapping or inconsistent regulation. It has established two workgroups, the State Programs Implementation Workgroup and the Ground Water Cluster. The State Programs Implementation Workgroup developed this CSGWPP Guidance and provides

implementation support to States. The Ground Water Cluster works to incorporate EPA's ground water protection principles and the CSGWPP approach into regulations, guidances, and policies.

EPA is committed to eliminating duplicative or inconsistent regulatory requirements. The Ground Water Cluster is developing a ground water regulatory agenda which will be a profile of EPA's ground water activities. Similar to the profiles that States recently completed, EPA's ground water regulatory agenda will identify overlaps and inconsistencies in existing ground water-related regulations and national guidances, and will ensure that these regulations will be reviewed and revised if necessary to reflect EPA's ground water principles and support the CSGWPP approach. Through the Ground Water Policy Committee and the Ground Water Cluster, EPA's program offices are seeking new ways to promote State resource-based decision making in their programs through increased flexibility and assistance.

EPA is working through the Ground Water Policy Committee to make the CSGWPP approach the centerpiece of rational, consistent, and meaningful priority decision-making in two ways:

- Through the CSGWPP Strategic Activities and adequacy criteria, EPA is encouraging States to establish consistent and rational priorities by focusing on the relative status and future prospects for their ground waters across geographic areas. Other factors for priority setting are also important, but it is the emphasis on State-directed resource-based decision-making that gives CSGWPPs a unique and powerful role in ground water protection. A State should not put off setting ground water protection priorities until comprehensive ground water assessments covering the whole state are completed. Most States should be in the position of using a basic understanding of their ground water to begin applying a systematic and consistent approach to setting priorities on an "as needed" basis (e.g., when there is a facility siting issue).
- By introducing the CSGWPP concept into all emerging Agency regulations and guidances relevant to ground water, EPA is providing States with the opportunity to influence fundamental operational decisions of all of EPA's ground water-related programs based on priorities derived from a State's understanding of its resources. Appendix B of this Guidance describes one important aspect of State ground water resource information -- i.e., State determinations of "reasonably expected uses of ground water" -- which will be incorporated into emerging EPA regulations. EPA is also working to provide similar opportunities for States across relevant federal programs operated by other agencies as States move toward full CSGWPP implementation.

Operationally, the benefits of the CSGWPP's State-directed, resource-based, decision-making approach are best illustrated by several examples:

- Siting of Facilities/Operations: Many facilities and operations offering social and economic benefit are potential or actual sources of ground water contamination. Even when they are subject to exacting and best available technical and engineering requirements, some risk of release to ground water remains. These risks to human health and the environment can be further minimized by the State by determining where to locate such facilities based first on prevention, and then on factors such as use, value, and vulnerability of the resource. One example is the draft RCRA Subtitle D State and Tribal Implementation Rule, which will allow a State the flexibility to adjust certain permitting criteria for municipal landfills based in part on the State's assessment of the underlying aquifer's vulnerability.
- Permitting, Monitoring, and Inspecting: Most States will not be able to pursue these activities to maximum levels at all possible sites; there are not enough resources to allow this. The prevention approach allows monitoring, permit limits, and inspection schedules to be tailored based on vulnerability first and then use and value where necessary. One example is the Public Water Supply Supervision Program, which currently allows States to work toward flexible federal monitoring requirements.
- Coordination and Targeting: Program capacity could be significantly increased through a CSGWPP's coordination and targeting of "same facility" inspections across programs. An example would be coordination of inspections of underground storage tanks and underground injection control wells at gasoline service stations.
- Remediation Efforts: For some remediation programs the use, value, or vulnerability of underlying ground waters can dictate the necessary degree of clean-up. Such flexibility allows for greater focus of funds and personnel on sites with the most critical human health and environmental risks. An example is the Superfund Program, which gives a higher score through the Hazard Ranking System to sites that are located within a Wellhead Protection Area.
- Reference Points: Ground water contamination control priorities and ground water remediation measures should be based on the level of contamination present in the ground water and on the designated uses for the ground water (referred to as "Reference Points" in the Ground Water Protection Strategy for the 1990s). Although there is considerable uncertainty in correlating contamination control or remediation measures with a particular level of contamination, the use of reference points can

help provide a State with the basis for judging one contamination problem against another and establishing priorities. Even when prevention of any release at a facility is a program objective, reference points will be useful should such measures fail and decision-makers are faced with implementing more drastic measures to prevent further contamination (e.g., immediate closure of a facility).

Other examples, specific to individual programs, appear in Part II. Generally speaking, these examples demonstrate that comprehensive protection of the ground water resource means rational, efficient, effective, priority-based management of ground water quality.

The CSGWPP approach will be implemented within the bounds set by statutory and regulatory mandates. Nevertheless, a review of relevant federal programs suggests that significant opportunities exist, within the boundaries set by federal statutes and regulations, for State flexibility to set ground water protection priorities and tailor protection measures. EPA is working to ensure that the conditions a State must meet to gain flexibility under the variety of federal programs related to ground water are consistent across those programs. In addition, when new legislation or reauthorizations are being considered, EPA will encourage Congress to provide States with the key decision-making role based on conditions consistent with the CSGWPP approach. EPA's task will be made easier to the extent that States have moved aggressively to implement the CSGWPP approach and are achieving the intended effective and efficient protection of the nation's valuable ground water resources.

Part II, Section I, provides a detailed program-by-program discussion of the linkages between the CSGWPP approach and each EPA program that potentially affects ground water. Twenty programs are described in terms of how the program would make use of CSGWPP resource-based priority setting and how CSGWPPs could promote program coordination. Finally, for programs that provide grants to States, a brief discussion addresses how those grants could be used to support the development and implementation of CSGWPPs.

4.2 Linkage to Other Federal Agency Programs

Several federal Agencies in addition to EPA are involved in activities that directly or indirectly affect the quality of ground water in the States. A central premise of the CSGWPP approach is that the activities of these other agencies also should be included within a coordinated framework. This section describes some of the linkages between other federal programs and the CSGWPP approach. Section II of Part II discusses and identifies opportunities for coordination between CSGWPPs and the activities relating to ground water of six federal agencies.

The States themselves strongly recommended in EPA/State Roundtables that EPA discuss the CSGWPP approach with other federal agencies. The States' interest focused on three broad points:

- Providing Technical Assistance: Many federal agencies manage programs which provide significant technical and financial assistance to State ground water protection activities. This assistance should be focused on supporting the development and implementation of CSGWPPs.
- Utilizing States' Ground Water Protection Priorities in Non-Regulatory Efforts: Non-regulatory efforts should be targeted such that geographic and programmatic priorities outlined in the CSGWPP are supported. Examples of these non-regulatory activities include demonstration projects, public education and outreach, implementation of BMPs, and other similar activities.
- Utilizing State Ground Water Protection Policies, Objectives, and Standards: Some ground water contamination concerns are assigned by law to federal agencies and cannot be delegated to the States (e.g., high-level radioactive waste disposal) or require a national perspective to balance national, State, and local interests. In other situations, federal agencies should, to the degree possible, align their ground water protection and remediation efforts with State priorities as outlined in CSGWPPs.

In order to engage the federal agencies in a discussion of these points, EPA held a Federal Agency Roundtable in the early Spring of 1992. The following federal agencies, in addition to EPA, were represented at this Roundtable discussion:

- Department of Agriculture
- Department of Defense
- Department of Energy
- Department of Interior
- Department of Commerce
- Department of Health and Human Services
- Department of Housing and Urban Development
- Department of Justice
- Department of Transportation
- Federal Emergency Management Agency
- Nuclear Regulatory Commission
- Tennessee Valley Authority
- Office of Management and Budget

The Roundtable resulted in some concrete suggestions for integrating the activities of these departments and agencies into the CSGWPP approach. Those suggestions are described in this section of the Guidance and in Part II. Because the Roundtable was mainly an introductory forum in which to acquaint the federal agencies with the CSGWPP concept, the federal agencies have not yet committed to specific actions in conjunction with the CSGWPP approach. EPA is working with each agency and department to further define and finalize their support of and involvement in the CSGWPP approach. This will result in each agency or department developing specific program guidances, guidance memos, and/or similar materials outlining its support of the CSGWPP approach; where discrepancies between this Guidance document and those specific program guidances exist, the specific guidances will prevail.

The remainder of this section focuses on the specific suggestions made by the other federal agencies. Each of the overarching topics outlined above is addressed in the paragraphs that follow.

Providing Technical Assistance

Federal agencies, other than EPA, provide a broad range of technical assistance activities that could help States develop and implement their CSGWPPs. The federal agencies have indicated a willingness to target these activities based on the geographic and programmatic priorities outlined in each State's CSGWPP. Examples of the types of activities contemplated include:

- The USDA's land grant university system, through cooperative extension services, can provide direct technical assistance to implement CSGWPP prevention activities in the field.
- Other federal agencies such as DoD and DOE provide significant funding to universities for research and development activities related to ground water, and to develop technical assistance materials; these funds could be targeted based on a State's priorities as outlined in a CSGWPP and could be coordinated with other grant- or contract-funded projects within the context of the CSGWPP framework.
- USGS's ground water assessment and mapping activities, funded by the agency's cooperative agreement program, could be coordinated with other assessment and characterization activities within the framework of the CSGWPP.
- Ground water data collected by all federal agencies could be coordinated within the CSGWPP framework.

- The Bureau of Reclamation could target its technical assistance funding devoted to ground water based on CSGWPPs.
- All federal agencies could work together to develop a common GIS database which would support resource-based decision making.

In order to elaborate on these ideas, the federal agencies agreed to work together to develop a federal clearinghouse or manual on all potential ground water-related technical assistance opportunities. This manual would help federal agencies coordinate their activities and would assist States in gaining access to available technical assistance as they develop and implement their CSGWPPs. The federal agencies also suggested that they be given some role in the review and concurrence of CSGWPPs and CSGWPP development plans.

Utilizing States' Resource-based Protection Priorities in Non-Regulatory Efforts

A CSGWPP provides a framework that is intended to ensure that all ground water protection activities occurring under State, local, and federal laws within a State are based on a consistent understanding of the characteristics of a State's ground water, priority geographic areas, priority contaminants, and other similar parameters. Some examples of non-regulatory activities that other federal agencies have underway, or may consider, that could fit into the CSGWPP framework include the following:

- DoD and DOE remediation demonstration projects could be adjusted to reflect State ground water protection priorities.
- USDA's water quality demonstration projects could be targeted and implemented based on the priorities in a State's CSGWPP.
- The Public Health Service can target educational material on contaminants or contaminating sources of concern as defined by a State's CSGWPP.
- Agencies such as the Soil Conservation Service and the Cooperative Extension Service provide direct assistance to farmers and others with best management practices implementation in the field; these services could be targeted and tailored based on CSGWPP geographic and programmatic priorities.
- DOJ could target litigation support based on State CSGWPPs.

In order for these activities to take place, EPA and the States must open up lines of communication with other federal agencies. Other federal agencies must have an early understanding of State ground water priorities so that those priorities can impact agency planning and budgeting.

Utilizing States' Ground Water Protection Policies, Objectives, and Standards

This is the most difficult and challenging arena within which to link other federal agencies to the CSGWPP approach. Just as is the case with EPA programs, other federal agencies are concerned about limiting factors such as specific statutory mandates and long-standing agency regulations. Nevertheless, there are broad areas that warrant additional study and which may ultimately allow for consistent and rational deference to States within the context of CSGWPPs. These include the following:

- Land management agencies such as DOI's Bureau of Reclamation and USDA's Forest Service could work more closely with the States to assure that policies on federal lands do not lead to contamination of aquifers designated by the States as highly valuable or vulnerable.
- Federal facilities that will be required to clean up hazardous waste sites could change their priorities for clean up and protection to make them consistent with CSGWPPs.
- Federal programs could participate in the development and implementation of CSGWPPs so that facility-specific ground water management plans become integral to overall CSGWPPs.

Priorities under the CSGWPP should be based on the resource and not on federal facility ownership. In general, federal facilities and land managers are concerned that States will apply priorities differentially based on land or facility ownership rather than based on the characteristics of the ground water. This could lead to significant discrepancies in ground water quality management policies from site to site. Federal agencies are very interested in participating with EPA and the States in the development and implementation of CSGWPPs in order to assure that this will not occur.

Part II, Section II describes the ground water-related programs of six selected federal agencies. For each of these agencies' ground water-related programs, the Section discusses how the State and the respective agency would benefit from CSGWPP resource-based priority setting and coordination of efforts through State CSGWPPs.