

information at the planning stage (within reasonable time and cost constraints) may be limited; preliminary information and estimates may need to be modified over time, accompanied by mid-course corrections in the watershed plan; and it often will require a number of years of effective implementation for a project to achieve its goals. EPA fully intends that the watershed planning process described above should be implemented in a dynamic and iterative manner to assure that projects with plans that contain the information above may proceed even though some of the information in the watershed plan is imperfect and may need to be modified over time as information improves.

E. Scale and Scope of Watershed-Based Plans

The watershed-based plan must address a large enough geographic area so that its implementation will address all of the sources and causes of impairments and threats to the waterbody in question. These plans should include mixed ownership watersheds when appropriate to solve the water quality problems (*e.g.*, Federal, State, and private lands). While there is no rigorous definition or delineation for this concept, the general intent is to avoid single segments or other narrowly defined areas that do not provide an opportunity for addressing a watershed's stressors in a rational and economic manner. At the same time, the scale should not be so large as to minimize the probability of successful implementation. Once a watershed plan that contains the information identified in Section III.D has been established, a State may choose to implement it in prioritized portions (*e.g.*, based on particular segments, other geographic subdivisions, nonpoint source categories in the watershed, or specific pollutants or impairments), consistent with the schedule established pursuant to item (f) above.

EPA recognizes that States already have in place or have been developing watershed plans and strategies of varying levels of scale, scope, and specificity that may contribute significantly to the process of developing and implementing watershed-based plans. We encourage States to use these plans and strategies, where appropriate, as building blocks for developing and implementing the watershed-based plans. In doing so, to the extent that other documents contain the information identified above in Section III.D, this information may be incorporated by reference into States' watershed-based plans. (Where these plans and strategies have been

developed at a large geographic scale, they will in many cases need to be refined at a smaller watershed scale to provide the information needed to produce effective watershed-based plans.) In particular, we recommend that States use their continuing planning processes, water quality management plans (WQMPs), Watershed Restoration Action Strategies (WRASs), comprehensive conservation and management plans (CCMPs), CZARA programs, and other similar holistic watershed documents, to help guide their watershed-based approaches to watershed-based plan development and implementation.

EPA encourages States to develop NPS TMDLs or, where applicable, sets of NPS TMDLs on a watershed basis. We encourage States to implement watershed-based plans holistically, as this approach usually provides the most technically sound and economically efficient means of addressing water quality problems. Consistent with this approach, EPA encourages States to include in their watershed-based plans approaches that will address all of the sources and causes of impairments and threats to the watersheds in question. Thus, the watershed-based plans should address not only the sources of water quality impairment, but also any pollutants and sources of pollution that need to be addressed to assure the long-term health of the watershed, including both surface and ground water that serve as sources of drinking water. Finally, since watersheds with completed TMDLs have the best documentation of the load reductions needed to achieve water quality standards, EPA recommends that States assign the highest priority to implementing watershed-based plans for waters that have completed TMDLs.

We further recommend that States give their highest funding priority to projects that are supported by additional funding from other Federal, State, and local agencies (particularly USDA-supported programs), SRF, or private sector funding. Additionally, States should consult their SRF Program's Integrated Planning and Priority Setting System, if such system is in use, to address the highest priority water quality improvement projects (see <http://www.epa.gov/owm/finan.html>). Given the significant expense of many watershed projects, such an approach will help expedite successful implementation of needed practices and thus speed the restoration of water quality. It will also help assure that watersheds are addressed in a holistic manner that accounts for the broad variety of stressors in the watersheds.

F. Monitoring Our Progress

As States continue to strengthen their focus upon restoring waters that have been listed as impaired on their Section 303(d) lists, as well as to protect waters that are currently not impaired, it is critical that they monitor both: (1) the progress that they are making towards achieving and maintaining water quality standards; and (2) the implementation of their programs and projects to assure that they are successfully implemented. In Section IV.E below, we discuss the use of the Section 319 program's Grants Reporting and Tracking System (GRTS) to track implementation of programs and projects, estimate pollutant load reductions, and report the amount of acres of wetlands and feet of riparian areas protected or restored. In addition, EPA's Watershed Assessment, Tracking and Environmental Results (WATERS) Information System, which combines a variety of water quality information, including that which is developed by States in Section 305(b) reports and 303(d) lists, will provide information that indicates when an impaired waterbody achieves water quality standards. (For more general information on WATERS, and on the Consolidated Assessment and Listing Methodology (CALM) that supports the 305(b) and 303(d) processes, see <http://www.epa.gov/waters> and <http://www.epa.gov/owow/monitoring/calm.html>.)

There are a variety of technical tools that can be used by States to monitor their progress at a program or project level. EPA strongly encourages States to enter their water quality monitoring data, for data collected in a waterbody pursuant to the implementation of a Section 319 project, into EPA's "storage and retrieval" (STORET) data system. States that are not yet prepared to use STORET for storage of data generated in the development and implementation of Section 319 watershed projects should in the interim store their assessment in an accessible electronic database.

We discuss some recommended tools and methods immediately below. In addition, States with approved CZARA programs are responsible under CZARA for monitoring and tracking progress through successful implementation of CZARA management measures. EPA has also published several detailed guidance documents to assist States and others in conducting monitoring programs to both track implementation and determine the success of on-the-ground projects in achieving water-quality-improvement goals. See Monitoring Guidance for Determining the Effectiveness of Nonpoint Source Controls (U.S.