STREAMLINES

A Newsletter for North Carolina Water Supply Watershed Administrators

Volume 2, Number 4 October 1997

Why Watersheds?

Increasingly, water resource professionals are turning to watershed management as a means for achieving greater results from their programs. Why? Because managing water resource programs on a watershed basis makes good sense -- environmentally, financially, and socially.

Better Environmental Results

Because watersheds are defined by natural hydrology, they represent the most logical basis for managing water resources. The resource becomes the focal point, and managers are able to gain a more complete understanding of overall conditions in an area and the factors which affect those conditions.

Traditionally, water quality improvements have focused on specific sources of pollution, such as sewage discharges, or specific water resources, such as a river segment or wetland. While this approach may be successful in addressing specific problems, it often fails to address the more subtle and chronic difficulties that contribute to a watershed's decline, such as non-point source contamination. For example, pollution from a sewage treatment plant might be reduced significantly after a new technology is installed, and yet the local river may still suffer if other components in the watershed, such as habitat destruction or polluted runoff, go unaddressed. Watershed management can offer a stronger foundation for uncovering the many factors that affect a watershed. The result is management better equipped to determine the actions needed to protect or restore the resource.

Saving Time and Money

Besides the environmental payoff, watershed approaches can have the added benefit of saving time and money. Whether the task is monitoring, modelling, issuing permits, or reporting, a watershed framework offers opportunities to simplify and streamline the workload. For example, synchronizing monitoring schedules so that all monitoring within a given area (i.e.: a watershed) occurs within the same time frame can eliminate duplicate trips and greatly reduce travel costs. The State of North Carolina was able to monitor nearly 40 percent more waters with the same level of effort after monitoring was conducted on a more coordinated watershed basis.

Data collection is one activity that is particularly ripe for greater cooperation and coordination. For example, a State can improve its understanding of water quality and potentially reduce its own monitoring costs by collecting, compiling, and using the data from monitoring activities of the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey, the National Oceanic and Atmospheric Administration, and the National Resource Conservation Service. In addition, permittees and other stakeholders that generate ambient monitoring data can form basin monitoring consortiums to pool resources and provide the State with better information from which to make decisions.

Efficiency is also increased once all agencies with natural resource responsibilities begin to

work together to improve conditions in a particular watershed. Since watersheds follow natural topography, they rarely conform to standard political boundaries. In its truest sense, watershed protection engages all partners within a watershed, including Federal, State, Tribal and local agencies. By coordinating efforts, these agencies can complement and reinforce each others' activities, avoid duplication, and leverage resources to achieve greater results.

Greater Public Support

Watershed protection can also lead to greater awareness and support from the general public. Many people in urban areas do not have a good understanding of where their tap water comes from, or where their waste water goes when they flush the toilet. Once individuals become aware of and interested in their watershed, they often become more involved in decision-making as well as hands-on protection and restoration efforts. Through such involvement, watershed approaches build a sense of community, help reduce conflicts, increase commitment to the actions necessary to meet environmental goals, and ultimately, improve the likelihood of success for environmental programs.

Government's Role (EPA)

As the primary Federal agency with responsibility for protecting and restoring the nation's waters, the Environmental Protection Agency (EPA) has opportunities to advance watershed protection in a basinwide manner. The Division of Water Quality (DWQ) has welcomed EPA's emphasis on using the watershed approach in planning, permitting, and local government assistance. In recent years, considerable effort has been invested by EPA and DWQ in streamlining administrative program requirements that hinder watershed approaches and in developing useful watershed tools and services. The following are programs available for the benefit of water resource managers interested in adopting broader watershed approaches.

Providing Financial Assistance

EPA is administering Clean Water Act (CWA) grant programs in ways that encourage watershed protection. The State of North Carolina has taken advantage of many of these funding mechanisms to provide additional dollars for watershed based water quality analysis and protection across the state.

Nonpoint Source Grants

EPA has changed the nonpoint source grants program (CWA Section 319) to provide more flexibility to States to focus on priority watersheds and issues. Under guidance developed by EPA, North Carolina is identifying waters and their watersheds that are impaired by non-point source pollution and unimpaired waters that are threatened by existing or future non-point sources. Through non-point source (NPS) teams, the State is establishing a process to address some of these identified waters by developing detailed watershed assessments and watershed implementation plans and then implementing the plans. The State also disburses money to regional planning entities through the 205(j)(1) grants program which gives priority to basin-based efforts..

State Revolving Loan Funds

EPA is also working with the States to determine how the State Revolving Loan Fund (SRF) (CWA Section 604(b)(3)) can be used to better support watershed protection activities. Traditionally the SRF has been used to finance municipal sewage treatment plant projects.

However, in recent years, some States have been using the SRF to fund a variety of other water quality projects including non-point source, estuary, habitat restoration, and stormwater projects. In North Carolina, the construction grants program uses the basinwide plans in establishing priorities for funds allocation.

Avoiding Filitration of Drinking Water Supplies

The Surface Water Treatment Rule requires public water systems to filter their water supplies to remove pathogenic microbiological contaminants. However, if a water supply meets certain source water quality criteria and the community has a watershed program in place that sufficiently protects against these contaminants, EPA allows exemptions from the filtration requirements. Public water suppliers that qualify for these exemptions can avoid the expense of constructing and operating filtration plants. Over 100 large cities and smaller towns have already taken advantage of this flexibility to avoid the expenses of filtration, while implementing comprehensive watershed protection programs.

Less Monitoring Under the Safe Drinking Water Act

EPA has modified drinking water monitoring and reporting requirements to allow States to grant waivers from those requirements if an assessment of risks in the watershed demonstrates that contamination by certain pollutants is unlikely. Communities that receive waivers can reduce their monitoring and reporting costs by 50-90 percent. State agencies also realize savings because their oversight costs are reduced.

Why Watersheds?

Watersheds are defined in nature by topography which may or may not conform to political boundaries. The watershed land area drains to a waterbody and affects its flow or level, loadings of pollutants, etc. In both a real and figurative sense, a lake or river is a reflection of its watershed. EPA's Office of Water, along with the N.C. Division of Water Quality and many local groups have been emphasizing the importance of organizing water quality improvement efforts on a watershed basis in order to handle water quality issues more effectively. The Water Supply Watershed Protection program conforms to this paradigm and enables local governments to collectively plan to protect their drinking water supplies in a comprehensive manner.

Resources

Thanks to the EPA Office of Water for allowing DWQ to paraphrase their report *Why Watersheds?* Document #EPA800-F-96-001 (2/96). For more information, contact N.C. DWQ at (919) 733-5083, N.C. Public Water Supply at (919) 733-2321, EPA's Nonpoint Source Grants Assessment and Watershed Protection Division at (202) 260-7040, or EPA's Safe Drinking Water Act Monitoring and Drinking Water Implementation Division at (202) 260-3874.

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