



EXECUTIVE SUMMARY

Understanding Priorities, Activities, and Needs of MS4 Stormwater Programs in Tennessee

Part 2 of a Statewide Watershed Management Needs Assessment

Lead Organization	Center for Watershed Solutions
Project Participants	University of Tennessee-Institute for a Secure and Sustainable Environment (UT-ISSE) and Cumberland River Compact
Sponsors	US Environmental Protection Agency, UT-ISSE
Survey Objectives	<ol style="list-style-type: none">1) To assess the level of priority MS4 programs place on various watershed issues2) To determine what activities MS4 programs are conducting related to monitoring/assessment, planning, conservation/restoration, and education/outreach3) To assess the organizational resources of MS4 programs4) To determine the agencies and stakeholder groups with whom MS4 programs are currently working or would like to work5) To identify the top needs for assistance expressed by MS4 program managers
Sample	53 MS4 Stormwater Programs in Tennessee (71% response from 75 MS4s)
Techniques	Conducted on-line in July 2008 using the SPSS Dimensions™ Web survey tool mrInterview™
Pretest	Evaluation of draft on-line survey by peer reviewers and key stakeholders and a pretest with pilot group in June 2008
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Introduction

There is a growing understanding that many environmental challenges facing communities are best addressed at the watershed scale through the collaborative effort of public, private, and civic entities. This is certainly true of nonpoint source pollution, which constitutes the leading source of water quality impairments in Tennessee, the Southeast, and the nation as a whole. As rainwater flows across parking lots, lawns, construction sites, farmland, and industrial areas, it carries varied pollutants into our vital waterways. This stormwater, when ineffectively managed, negatively impacts both water quality and quantity, leading to ecological, social, and economic losses for our communities. In the 1990s, EPA began regulating stormwater discharges from certain construction sites, industrial activities, and municipal storm sewer systems (MS4s) under the NPDES permitting system. The implementation of these regulations in MS4-permitted communities in Tennessee has dramatically increased the role of local government in managing stormwater impacts. The purpose of this needs assessment survey is to better understand the priorities, activities, resources, and needs of MS4 programs in Tennessee. The results will be used with other information gathered in our statewide watershed management needs assessment to inform the scope and services of the newly established Center for Watershed Solutions initiative of the University of Tennessee's Institute for a Secure and Sustainable Environment and the Cumberland River Compact. We look forward to working together with MS4 communities, agencies, universities, and other partners across the state to address the priorities and needs expressed.

What watershed issues do MS4 program managers consider to be of high priority?

Development practices, citizen awareness of watershed issues, and stormwater management/flood control were reported as high priority issues by over 75% of the surveyed MS4 program managers. Over one-third considered development practices to be of the highest priority. Other high priority issues included urban runoff, watershed protection/restoration, clean lakes, and elected officials' awareness of water issues.

What activities are MS4 programs conducting to address these watershed priorities?

The surveyed MS4 programs are engaged in a wide variety of strategies to address watershed issues including monitoring and assessment,

planning, conservation and restoration, and education and outreach activities. Across these categories, MS4s have the most experience with a variety of education and outreach strategies including distributing brochures, fact sheets, and guidebooks; hosting public meetings and events; maintaining a website; and utilizing the public media. In monitoring and assessment, over one-half of the MS4s employ GIS mapping and conduct visual assessments to monitor water quality in their local watersheds. Of planning activities, MS4 programs have the most experience with reviewing/revising local land use codes (45%). Many are interested in future planning activities related to green infrastructure, green building, and sustainable community development/smart growth. Finally, most MS4 programs contribute to conservation/restoration by conducting stream and dump site clean-ups, with many interested in expanding into stream restoration and stormwater strategies for homes and businesses, such as rain gardens/barrels, low impact development, and sustainable landscaping.



What resources do MS4 programs have to carry out their objectives?

Many of the MS4 programs surveyed have limited resources to devote to their stormwater and watershed management efforts. Forty percent of the participants in this survey reported budgets less than \$25,000 and 70% have one to three full-time staff. At the other end of the spectrum, a quarter of the MS4 programs have budgets over \$250,000. About three quarters of the participating MS4s obtain all of their operating budget from the local government's general fund. Twenty percent receive some funding from stormwater utility fees and another 20% are considering or in process of developing such fees as a funding source.

What agencies and stakeholders are MS4 programs working with to address watershed priorities?

The overwhelming majority of the MS4s work with the Tennessee Department of Environment and Conservation (TDEC). Over half also work with water utilities and the US Army Corps of Engineers. Of stakeholder groups, MS4s have the most experience working with developers/builders and professional consultants. Many also work with environmental groups and citizens. Over half of the MS4 programs reported that they are interested in developing collaborations with universities and civic groups, as well as recreation and forestry groups.

What are the top needs expressed by MS4 program managers?

When asked to identify the top three needs for assistance over the next two years, MS4 managers most often cited education, outreach, and training needs as well as the need for additional program funding and staffing. Among the six main program requirements in the MS4 permit, about half the managers expressed a high level of assistance needed with public participation/involvement, post-construction stormwater management, and public education and outreach on stormwater impacts. Forty percent of managers expressed a need for assistance with implementing a TMDL. This was also reflected in a high number of TMDL-related comments to the open-ended question asking stormwater managers to identify their top three needs. Across activities, a relatively high need was expressed in monitoring and assessment, with at least 40% seeking assistance in biological water quality monitoring, assessing economic impacts of waterways, and watershed modeling. In planning, conservation/restoration, and education/outreach, the priority needs expressed by at least 30% of managers were green building, developing a watershed-based plan, wetland restoration, educational curriculum development, and targeting education/outreach to K-12 students and teachers.