

# A Protocol for Monitoring Best Management Practices

USDA Forest Service  
Northeastern Area  
State and Private Forestry



**Description:** The 1987 Clean Water Act defines Best Management Practices (BMP) as precautionary measures taken to protect water resources.. Timber harvesting activities are exempt from the permitting requirements of the Clean Water Act under a silvicultural exemption—if BMPs are used effectively. The U.S. Environmental Protection Agency (EPA), in response to litigation challenging the silvicultural exemption, has been required to provide data showing that BMP are in use, effective, and that data is reliable and comparable among States. However, State monitoring has been sporadic in the past, primarily qualitative, and often unreliable as a measure of BMP effectiveness.

The Northeastern Area Association of State Foresters (NAASF) and the US Forest Service Northeastern Area (NA) have created a regional protocol for monitoring the implementation and effectiveness of BMPs. The project is managed by NA staff based on an initial concept developed by the Maine Forest Service. The protocol offers States a science-based, flexible, cost-effective method for assessing the use and effectiveness of BMP, helping to meet legal obligations for protecting water quality during timber harvesting. It is based on a series of questions that assess the underlying principles of water pollution prevention, rather than individual BMP practices. Principles include planning the operation, stabilizing disturbed soil, and controlling water flow, among others. States control BMP practice specifications while aiding consistent regional data collection. By focusing on areas of potentially high risk to water quality, such as water crossings and riparian areas, the approach maximizes the environmental and cost benefits.

## Key Issues:

- The Clean Water Act identifies BMPs as a primary means to control potential nonpoint source pollution from timber harvesting and accepts the use of BMPs in lieu of the permitting process.
- Research has shown that BMPs can be effective if applied correctly.
- To date, BMP compliance monitoring has focused on BMP implementation alone and has been sporadic, primarily qualitative, and often unreliable as a measure of BMP effectiveness.
- The EPA requires measurable, site-specific, comparable data to demonstrate that BMPs are being used effectively in compliance with the Clean Water Act.
- Strategic plan goals direct NA to cooperate with State partners to develop a consistent and effective BMP monitoring protocol for protecting water resources that includes monitoring, evaluation, and accountability.

## Accomplishments:

- Demonstrated the protocol for EPA, NASF, NAASF, state natural resource agencies, and forest industry.
- Programmed the protocol for economical pocket PC data collection units.
- Completed and evaluated more than 700 field test plots in Wisconsin, Indiana, West Virginia, Maryland, New York, Massachusetts, New Hampshire, Vermont, and Maine.
- Provided training for 10 States.
- Developed a software interface to generate standardized reports from BMP monitoring protocol data using a commonly available suite of software programs

- Developed a Protocol Field manual to support implementation by States and others and a Desk Reference on software use, sample design, query writing, quality control, and generation of the Standard Data Summaries.
- Presented the Protocol to the Northeastern Area Association of State Foresters, who adopted it for use in the 20 NAASF states.

**Budget History:**

<b>Regional BMP Monitoring Protocol Development</b>				
<i>(\$ thousands)</i>				
	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
Forest Stewardship Program	\$150	\$83	\$20	\$15
U.S. Environmental Protection Agency	\$0	\$50		
<b>Total</b>	<b>\$150</b>	<b>\$133</b>	<b>\$20</b>	<b>\$15</b>

**Future Direction:**

The completed BMP Monitoring Protocol “Toolbox” will be delivered to the States served by the Northeastern Area in early 2007. It contains published guidance and computer software tools for field foresters, and information for program managers on sample design, quality control, data processing, and report generation.

- Complete and publish the BMP Protocol Field Manual and Desk Reference.
- Post to NA website, and distribute manuals and software
- Conduct user training on the field manual and desk reference.
- Complete a final project report for the EPA
- Provide continued technical support for state agencies and other users of the protocol
- Develop and integrate the use of risk indices.

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