

**Recommendations for Establishing a Process to  
Improve Pre- and Post -Monitoring Programs for  
Small Watershed Grants Projects Funded by NFWF**

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**Report of the Task Force  
Chesapeake Bay Program  
Scientific and Technical Advisory Committee**

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# Introduction

Since 1999, The Small Watershed Grants (SWG) program, administered by the National Fish and Wildlife Foundation (NFWF), has provided over \$18 million to support 507 projects throughout the Chesapeake Bay Watershed. The goal of this program is to “protect and improve watersheds in the Chesapeake Bay basin, while building citizen-based resource stewardship.” In 2007, the SWG program is planning to fund, for the first time, small grants for project planning and design with the goal of designing appropriate monitoring programs to assess the environmental impacts of the SWG projects. The Chesapeake Bay Program’s Scientific and Technical Advisory Committee (STAC) was asked by NFWF to assist with development of a set of recommendations to cost-effectively conduct pre-and post-project monitoring of water quality impacts for its SWG program.

## Recommendations

The Task Force members held a telephone conference on May 10, 2007 to discuss the NFWF’s request. The following specific recommendations are made by the Task Force:

1. Given the low funding level (\$20,000 -\$200,000) and the relatively short duration (mostly one year) of the SWG projects, it is neither practical nor feasible to effectively monitor their direct water quality impacts. Rather, **we recommend that NFWF focus its SWG program monitoring efforts on consistently quantifying the structural/physical characteristics of the project sites.** Examples of the data to be collected could include the types of BMPs implemented, adherence to standard methods for their implementation and maintenance, lengths of riparian zones established, type and coverage of vegetation established, etc. **Such metrics do not directly measure water quality, so NFWF should refrain from using them to estimate and report direct water quality impacts, such as potential reduction in pollutant loads due to implementation of practices at the SWG project sites.**
2. Any activity involving physical alteration of a site needs to be monitored to ensure correct implementation and proper maintenance, so it is important to collect long-term structural/physical data from the project sites. The greatest benefit of the SWG monitoring could be the development of a comprehensive and consistent data set for all funded SWG projects. At minimum this information will help assess if the BMPs have been implemented correctly and identify the specific short-term as well as long-term maintenance issues. Such information collected from small watersheds distributed across the Bay Watershed would be very useful to watershed managers in other parts of the Bay basin. We believe that funds should be allocated and prioritized for repeat monitoring of the project sites and activities, evaluation of their long-term impacts, and development of comprehensive databases. Many organizations and agencies, such as the Army Corps of Engineers, typically devote about 5-10% of total project cost to monitoring and maintenance. Thus, we recommend that a portion of the available

funds for the SWG program be used to **hire an independent contractor who would monitor key phases of the SWG projects, including site design, initial BMP implementation and maintenance of practices, data analysis, and impact assessment.** The contractor could use Geographic Information Systems and high resolution aerial photography to supplement on-the-ground monitoring activities in a cost effective manner.

3. It is critical that uniform data collection, analysis and reporting procedures be developed to enhance the compatibility and utility of data being collected. Thus, the Task Force recommends that **NFWF engages an independent contractor to develop a comprehensive Guidance Document for collection of physical site and other ancillary parameters from the SWG projects.** This could be done by including the development of the Guidance Document in the next request for SWG proposals. The document could improve consistency and reduces subjectivity to foster a credible and universal method of monitoring project impacts. This information will also be very useful to the independent contractor performing repeat monitoring mentioned in item 2. **In the future, proposals submitted to SWG program should be evaluated partly on how well they address the Guidance Document recommendations for implementation, data collection, data analysis, and reporting of the results.**
4. We believe that it is not possible to inexpensively evaluate the long term water quality impacts of BMPs implemented by the SWG projects. Instead, we **recommend that NFWF utilizes its Targeted Watershed Program to evaluate the short-term and long- term impacts of individual or combined BMPs implemented at the watershed scale.** We suggest that NFWF utilize the database to be assembled through the SWG program and other databases available through other agencies, such as USEPA and USGS, to identify the research needs and data gaps. The targeted watershed program could be used to meet those research needs and develop feasible technologies for assessing the water quality impacts in small watersheds.