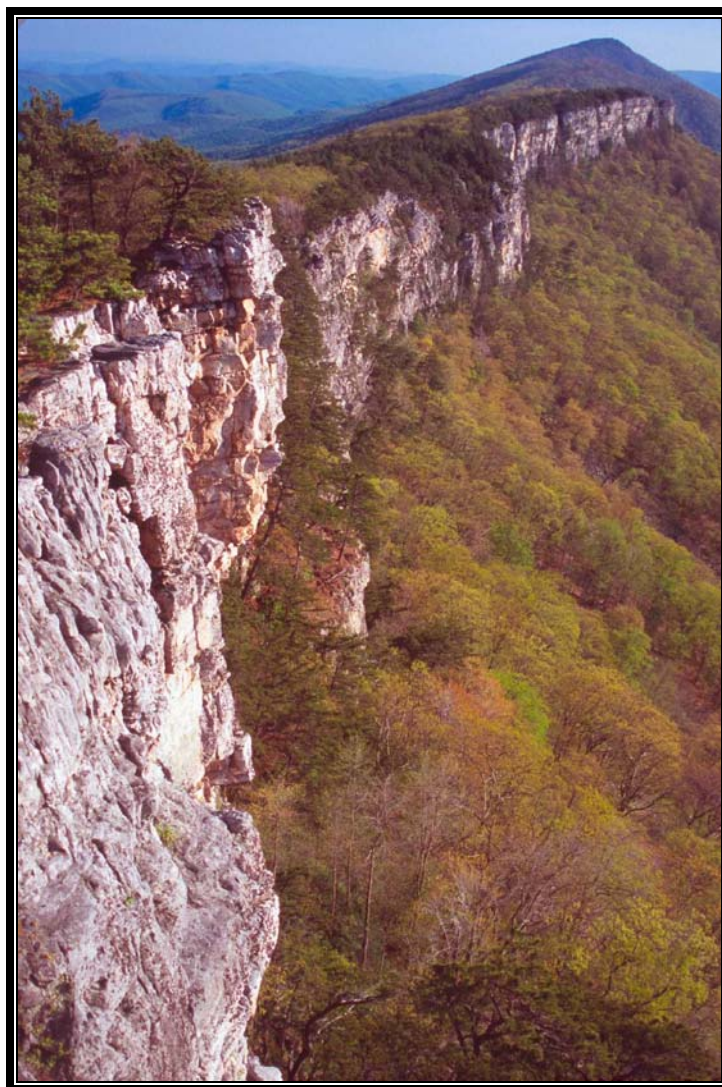


**Monongahela National Forest
Monitoring and Evaluation Report
For Fiscal Year 2007**



March 2008

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We would also like to thank our many cooperative partners who provided valuable monitoring information for this report.

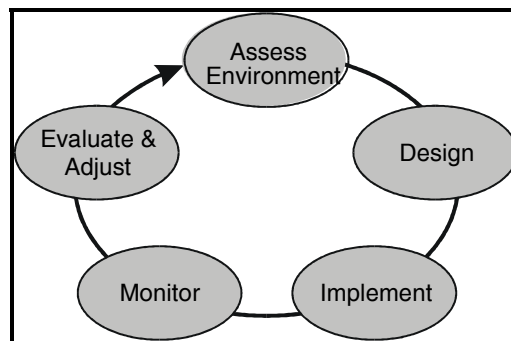
Purpose and Scope of This Report

Background

Land management is an adaptive process that includes social, economic, and ecological evaluations of conditions and trends that contribute to sustaining social, economic, and ecological systems. The Monongahela National Forest (Forest) is committed to collaborating internally and with other land management partners to provide highly credible resource information that meets a wide range of needs. Credible information requires inventory, monitoring, and evaluation activities that are appropriate, consistent, and effective.

Monitoring and evaluation are separate, sequential activities. Monitoring involves collecting data by observation or measurement. Evaluation involves analyzing and interpreting monitoring data. Information gained from monitoring and evaluation is used to determine how well the desired conditions, goals, objectives, and outcomes of the Forest's Land and Resource Management Plan (Forest Plan) have been met. Monitoring and evaluation keep the Forest Plan up-to-date and responsive to changing conditions and issues, and provide the feedback mechanism for adaptive management (Figure 1). The results are used to identify if and when changes are needed to the Forest Plan or the way it is implemented.

Figure 1. An Adaptive Management Learning Loop



The Forest has been monitoring and evaluating costs and resource conditions since the release of the 1986 Forest Plan, and it has produced an Annual Monitoring Report for many of those years. The last report was completed in 2007 for activities that occurred in Fiscal Year (FY) 2006. This year's report marks the transition from the 1986 Forest Plan to the 2006 revised Forest Plan. Although the 1986 and 2006 Plans are similar in many aspects, there are also many differences. The 2006 Chapter IV Monitoring and Evaluation Plan reflects these similarities and differences. Chapter IV of the 2006 Forest Plan contains some monitoring items that are virtually the same as items found in the 1986 Plan, either because they are required by law or agreement, or because they are long-term or ongoing items that are monitored periodically to show trends in effects or conditions. However, the 2006 Forest Plan has other monitoring items that are either new or represent a significant changes compared to monitoring that was done in the past. These new or different items may be reflective of new management direction, shifts in management emphasis,

or may be in response to lessons learned from previous monitoring efforts. All of the 2006 Chapter IV monitoring items were developed by an interdisciplinary team during Forest Plan revision, and they have undergone public review and input through the plan revision process.

Monitoring Types and Legal Requirements

The Forest Plan addresses several types of monitoring that generally fall into four broad categories:

- Category 1: Required monitoring items related to the National Forest Management Act,
- Category 2: Attainment of goals and objectives,
- Category 3: Implementation of standards and guidelines, and
- Category 4: Effects of prescriptions and management practices.

Category 1 monitoring items are mandatory components of the Forest Plan, derived from the National Forest Management Act, and tiered to requirements found in planning regulations at 36 CFR (Code of Federal Regulations) 219. For the 1986 Forest Plan, these items include:

- Comparing outputs/services with those projected in the Forest Plan [219.12(k)(1)].
- Comparing actual management costs in relationship to estimated costs [219.12(k)(3)].
- Document measured prescriptions/effects, including significant changes in productivity of the land [219.12(k)(2)].
- Lands are adequately restocked as specified in the Forest Plan [219.12(k)(5)].
- Lands identified as not suited for timber production are examined at least every 10 years [219.12(k)(5)].
- Evaluate maximum size limits for harvest areas [219.12(k)(5)].
- Destructive insects/disease do not increase to potentially damaging levels [219.12(k)(5)].
- Monitor population trends in indicator species as a result of habitat changes (219.19).

Category 2 through 4 monitoring items are more flexible and are tailored to address issues raised through public comments and interdisciplinary team review, as translated into Forest-wide direction and management practices. These items are more likely to change through time as indicated through monitoring evaluation results and recommendations.

Not all of the results of these monitoring items are reported on an annual basis. For example, lands identified as not suited for timber production are typically reported for Forest Plan revision, which the Forest was completed in 2006.

Monitoring Program

Many approaches to Forest Plan monitoring are currently being used throughout the agency. However, each monitoring program should: 1) meet the legal requirements of the planning regulations, 2) be consistent with corporate data standards and protocols, and 3) be developed through an interdisciplinary approach that addresses the ecological, social and economic dimensions of Forest management in an integrated manner.

To meet these objectives, the Forest's monitoring program has a number of components. First the Forest Plan must have direction that provides broad, strategic guidance for monitoring. This direction is found in Chapter IV in the 2006 Forest Plan.

Second, the broad, strategic direction in the Forest Plan should have an associated Monitoring Implementation Guide that provides specific, technical guidance on how the monitoring should be accomplished. The 1986 Forest Plan did not have such a guide. In its place, Forest program managers and specialists developed their own individual monitoring criteria and strategies. However, for the revised 2006 Plan a detailed Monitoring Implementation Guide has been developed. This Guide delineates information for implementing each monitoring item such as the specific monitoring to be done (what), the driver behind the monitoring (why), methodology (how), personnel (who), timing (when), location (where), data storage, costs, and priority. The Guide is not direction, but rather a tool that is intended to be as flexible as possible to allow for timely changes in order to increase the effectiveness of the overall monitoring program.

Third, an annual monitoring plan or schedule can be used to estimate activities for the current or upcoming fiscal year. This schedule can, in turn, be used in budget and work planning at the Forest and District levels, and to help keep the public apprised of our planned activities.

Fourth, the monitoring activities that occur on an annual or other regular basis need to be tracked and disclosed. The activities for Fiscal Year (FY) 2007 are described in this Annual Monitoring Report. We are also planning a comprehensive monitoring report every 5 years that focuses more on resource condition trends, and how we should address them.

Annual Monitoring Report

The FY 2007 Annual Monitoring Report provides an opportunity to track implementation of Forest Plan decisions and the effectiveness of specific management practices. The focus of the evaluation is to provide short- and long-term guidance to ongoing management. The report may include components such as:

- Forest accomplishments for outputs of goods and services.
- Forest movement toward desired conditions or attainment of goals and objectives.
- Forest Plan Amendment Status.
- Status of other agency/institution cooperative monitoring.
- Summary of available information on MIS or TES species/habitats.
- Summary of large-scale or significant monitoring projects or programs.
- Update of research or other monitoring needs.
- Public participation/disclosure plan.

This report summarizes monitoring and evaluation efforts that were conducted in FY 2007 for resources and conditions on the Monongahela National Forest. For each resource area, there is typically a list of accomplishments in FY 2007, followed by a more detailed description of the monitoring and evaluation that occurred. The monitoring and evaluation sections are generally divided into three parts: 1) a description of how the monitoring is linked to the 2006 Forest Plan,

2) a description of the monitoring that was done and the results from that monitoring, and 3) an evaluation of the monitoring, including any conclusions that were made and recommendations for changes to project implementation, Forest management direction, or future monitoring needs.

This report includes all of the Category 1 required monitoring items on pages IV-6 and IV-7 of the Forest Plan. They are generally found toward the beginning of the report, although #5, Recreation Motor Vehicles, is covered under the Recreation Resources section, and #10, Management Indicator Species, is covered under the Wildlife Resources, Botanical Resources, and Aquatic Resources sections.

Most of the Forest Plan Direction monitoring items are also addressed in this report. Like the Management Indicator Species item noted above, several items are addressed in multiple resource areas. Item #26, Regional Forester Sensitive Species (RFSS), is a good example. It is covered in the Wildlife Resources, Botanical Resources, and Aquatic Resources sections because the Forest has RFSS that are wildlife, plant, or aquatic species.

Some items or resources do not have their own section in this report, such as Fire, Special Uses, and some of the Wildlife items. Their absence may be due to a number of reasons. In some cases, people were not available to work on them due to illness or higher Forest priorities. In other cases, we are still working on the best way to address or report a certain item, or we have insufficient information to complete a report. These items or resources will likely be covered in future reports.

However, future reports may also feature differences in what was monitored or how it was reported. A number of potential changes can be found in the "Recommendations" for specific monitoring items in this report. Future reports may add, delete, change, or combine monitoring items found in this report. The overall goal of these changes is to have a program that we can refine and improve as we discover better ways to monitor and evaluate management practices and their effects on Forest resources. Monitoring flexibility is an important part of adaptive management for the Forest. We believe that better monitoring leads to better practices, projects and decisions as public land managers.

Public Involvement

The advent of the 2008 Planning Rule ushers in a new emphasis on public involvement and collaboration in Forest planning, including monitoring and evaluation. The monitoring reports are currently being posted on the Forest's external and internal websites to provide recent information on our monitoring and evaluation activities. Changes to monitoring items or protocols will be posted on our websites as well. We hope to also include postings of the MIG and annual schedule in the near future, with hard copies or all three documents available on request. Additionally, we will be looking for ways to further involve the public and our partners in the Forest's monitoring program.