

Mineral Resources

Introduction

Although the Monongahela National Forest does not issue leases or permits for mineral development on National Forest System (NFS) land, we do have the responsibility to help ensure that the development activities do not result in unacceptable adverse effects to the land and other Forest resources. We accomplish this through a combination of operating plan review and approval, and on-site and lease inspections. Monitoring and evaluation are important components of this protection system.

2006 Accomplishments

The Minerals Program accomplishments for 2006 included:

- Budget and work planning, including out-year planning.
- Reviewing and providing recommendations for mineral operating plans.
- Providing input, analysis, and review for various Forest projects.
- Providing input, analysis, and review for the Forest Plan revision effort.
- Monitoring and evaluation efforts as described below.

Monitoring and Evaluation

1986 FOREST PLAN MONITORING ITEMS FOR MINERAL RESOURCES

Forest Plan monitoring direction includes items intended to measure if, and the extent to which, mineral exploration and development are consistent with forest resource uses and environmental protection (1986 Forest Plan, pages 254, 254a, and 254b, and Amendment 4, October 1992). These Monitoring Items are:

1. Check on environmental effects and ensure compliance with standards, operating plans, and EAs;
2. Assure minerals are available for exploration and development with emphasis on energy producing minerals;
3. Determine how much gas development (or combination of gas development, roads, and timber harvesting) changes water quality by measuring turbidity and duration;
4. Determine soil loss off of gas well sites;
5. Determine if the effect on recreation use from noise is as predicted in the EA;
6. Determine if standards and guidelines are being properly and consistently applied to federal gas parcels and if lease conditions are being properly and consistently attached to issued leases;
7. Determine if lease terms provide the Forest Service with enough control to protect Forest resources; and
8. Determine if the earth disturbance from gas development is occurring as predicted.

Monitoring Items 2 and 8 are to be monitored at 5-year intervals, and were reported in the minerals input to the 2001-2003 Monitoring and Evaluation Report. Also, these items are addressed in the revised Monongahela National Forest Land and Resource Management Plan (September 2006) (2006 Forest Plan).

The 2006 Forest Plan identifies a goal and an objective related to assuring that minerals are available for exploration and development with emphasis on energy producing minerals (monitoring item 2 above). The goal is to make minerals available for exploration, development, and production consistent with other appropriate uses and protection of the environment, emphasizing energy minerals (MG01). An objective is to keep 70 to 80 percent of federally owned oil and gas available for exploration, development and production (MG06). The 2006 Forest Plan estimated that 74 percent of the federally owned natural gas is considered available for exploration, development, and production (Final Environmental Impact Statement for Forest Plan Revision, September 2006, page 3-375).

The Forest Plan revision process provided the opportunity to determine if the earth disturbance from gas development has been occurring as predicted (Monitoring Item 8). A comparison of predicted versus actual natural gas development on the Forest indicated substantially less development has occurred between 1991 and June 2006 than predicted for the period 1991 through 2009. Recognizing that some additional gas developments could occur between 2006 and 2009, the comparison at this point shows about 20 percent of the projected number of wells have been drilled, and 5 to 6 percent of the anticipated acres of surface disturbance, 8 percent of the anticipated road miles, and 30 percent of the anticipated gas pipeline miles have been proposed and authorized (Final Environmental Impact Statement for Forest Plan Revision, September 2006, page 3-368). In conclusion, earth disturbance from gas development has been occurring at levels considerably less than predicted.

Changes in water quality from sediment associated with gas development or gas development and timber harvesting combined, or soil loss from gas well sites have not been measured (Monitoring Items 3 and 4), but it is estimated that effects have been much less than predicted in 1991 due to the fact that much less development-related disturbance has occurred in the intervening years (see previous paragraph).

There have been no documented complaints from recreationists regarding noise (Monitoring Item 5) from on-going gas activities, which included operation and maintenance activities on existing gas development facilities.

There is no indication that federal oil and gas lease terms fail to provide the Forest Service with enough control to protect Forest resources (Monitoring Item 7). There were no appeals and legal challenges to Forest Service decisions regarding federal oil and gas lessee development rights, and no disapproved applications for permits to drill leased federal oil and gas, as there were no proposals put forth by federal oil and gas lessees in 2006 to develop oil and gas rights.

The monitoring results discussed below address minerals Monitoring Items 1 and 6.

Monitoring Item 1. Check on environmental effects and ensure compliance with standards, operating plans, and Environmental documents and decisions.

Active mineral operations were inspected by Forest Service mineral staff to determine compliance with approved operating plans and to look for environmental conditions of concern. There were 72 active mineral operations on National Forest System lands in fiscal year 2006. Forest Service mineral staff administered 100 percent of the active mineral operations in fiscal year 2006 to a standard that ensures compliance with the approved operating plans (see Inspection Reports, letters and notes within each mineral operation on file with the Forest Geologist in the Forest Supervisor's Office). The mineral operations monitored were associated with natural gas exploration, development and production, as well as natural gas storage operations and maintenance.

Monitoring Item 1. Evaluation, Conclusions, and Recommendations

Forest staff inspections of active mineral operations found most operations in compliance with operating plans. Operations that were out of compliance were so in ways that did not create substantial adverse environmental effects. For example, road maintenance was needed on a few access roads; extraneous material and litter had accumulated on a couple of sites and needed to be removed; gas equipment, in some cases, was showing rust and needed paint or replacement; a couple of access road gates were missing locks; rodent occupancy was evident at several small, unsecured buildings on well sites. Some operations inspected in fiscal year 2005 that had similar kinds of maintenance needs showed improvement by the 2006 inspection, other sites did not, and other sites developed the undesirable conditions. One particular gas field presented the most sites with gas equipment that appeared to need maintenance. This gas field was in a transition to new owners during 2006, and will have follow-up in 2007 with the new owners to bring the operations up to standard.

Inspection reports indicate that an invasive thistle continues to grow on several well sites. Although not abundant on any of these well sites, several more well sites, in different areas than in 2004, have thistle. The Forest Service has told the operators to remove the thistle by cutting it prior to the flowering. This appears to be keeping the thistle from becoming abundant on the affected well sites, but is not eliminating the thistle. Since thistle needs well-lighted conditions to thrive, it is not likely that the thistle will spread very far into the adjacent woods from the affected well sites.

Recommendations:

Continue monitoring for invasive species at gas well sites and associated roads and pipelines, so that appropriate actions may be taken to thwart the proliferation and spread of invasive species at natural gas facilities.

Monitoring Item 6. Determine if standards and guidelines are being properly and consistently applied to federal gas parcels, and if lease conditions are being properly and consistently attached to issued leases.

Issued oil and gas leases were reviewed to determine if appropriate Forest Plan standards and guidelines have been included as lease terms. Oil and gas leasing and development standards and guidelines in the 1986 Forest Plan (Amendment 4) include requirements to protect National Forest resources and inform lessees of operating requirements. These standards were applied by the Forest Service to lands nominated for oil and gas leasing, and forwarded to the Bureau of Land Management (BLM) to be included as lease terms for oil and gas leases issued as a result of the March 2006 lease sale. All of the oil and gas lands on the Forest that were offered at the oil and gas lease sale (auction) were sold, and the BLM issued oil and gas leases on these lands in 2006. Inspection of the Monongahela National Forest oil and gas leases issued in 2006 show that Forest Plan standards and guidelines have been appropriately applied in all leases as lease terms.

Monitoring Item 6. Evaluation, Conclusions, and Recommendations

The system established to incorporate Forest Plan standards and guidelines into oil and gas leases on NFS land is working. The lease term standards and guidelines should help protect other Forest resources during gas exploration and development.

Recommendations:

Continue to inspect leases and development sites to see that Forest Plan standards and guidelines are applied appropriately.