

Errata

- On page 2 of the EA, insert the following at the end of the first sentence of the first paragraph under **Tiering to the Final Environmental Impact Statement for the Allegheny National Forest Land and Resources Management Plan ...** “, except for Part 3 -Design Criteria, Section 2800 Minerals and Geology, Oil and Gas Development on pages 90 through 92 of the 2007 Allegheny National Forest Land and Resource Management Plan”.
- On page 4 of the EA, Table 1-1, remove the asterisk (*) which indicates no activities are proposed in MA 7.1, MA 8.1, and MA 8.2. Non-native invasive species (NNIS) treatments have been proposed in each of these management areas (MAs).
- The last sentence in number 4 on page 222 refers to “are identified in **Table B-2....**”. Table B-2 should be replaced with “Appendix B, Vegetation section, 3rd & 4th bullets, (on pages 229 -230).
- On page 11 of the EA under the last bullet add “The 2007 ANF Monitoring Report (7/17/2008) which contains updates to information on forest health conditions and wildlife information.” “None of the items monitored in 2007 identified a need to amend the Forest Plan” (page 59).
- Replace Sections **3.3 Air Quality**; **4.12.3 Air Quality (Direct and Indirect effects)**; and **4.13.10 Air Quality (Cumulative effects analysis)** (in their entirety) with the following sections:

3.3 Air Quality

Background

Current air pollution impacts occurring on the ANF result from numerous sources including automobiles, off-road construction equipment, wild fires, factories, oil refineries, and power plants, all of which contribute to the regional pollution load. Most of the pollution affecting the ANF is from external sources. The ANF is situated near the industrial heart of the United States and also near a high concentration of coal-fired electric generating facilities; the leading source of sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions. It also lies within a day’s drive of a large percentage of the United States population.

The Clean Air Act (CAA) sets the standards for the air quality in the United States. National Ambient Air Quality Standards (NAAQS) set the air quality standards for six criteria pollutants with which the entire country must comply. Primary NAAQS standards are set based on human health criteria. It is up to state air quality regulatory agencies to come up with State Implementation Plans to ensure that these standards are met in their respective states. If the standards are not met for any criteria pollutant, the area is designated as non-attainment for the pollutant.

The Clean Air Act Amendments (CAAA) of 1977 established the Prevention of Significant Deterioration (PSD) program. These amendments designated specific Wildernesses and National Parks as Class I areas. Under Title I, Part C of the CAAA, Federally mandated

Class I areas are provided with an additional measure of protection. The ANF has no Class I areas within or near its administrative boundaries.

When looking at the impacts of air quality, it is important to keep in mind that a handful of pollutants contribute to a variety of air quality related effects. These pollutants are a concern because of their impacts to human health and natural resources, and each is described in detail below. Air pollutants are generally classified as either primary or secondary pollutants. Those emitted directly into the atmosphere as products of combustion are classified as primary pollutants, while those formed when primary pollutants undergo atmospheric chemical reactions are classified as secondary pollutants. Descriptions of criteria pollutants can be found in the ANF LRMP FEIS on pages 3-52 through 3-55 and the Review of Information – OGM Activity and Air Quality, Allegheny National Forest.

Scope

Under the CAA, states must identify air quality control regions for the purposes of demonstrating attainment (or non-attainment) of the NAAQS. In the vicinity of the project area, these air quality control regions are identified as individual counties. Since air pollution is regional in nature and has the potential to disperse beyond project boundaries, emissions will be evaluated in the context of the four-county (Elk, Forest, McKean, and Warren) pollution loads. For this reason, the scope of the air quality analysis will extend to the four-county boundary; which includes the air quality control region where the project area and the ANF are located. Emissions were evaluated on an annual load basis assuming that activities would be evenly distributed over five years. The residence times in the atmosphere for most air pollutants are also short lived, and high concentrations of pollutants that are emitted during an activity dissipate and move out of the area. In other words, the pollutants emitted during one day of activities would not necessarily remain in the atmosphere and accumulate with those emitted during a subsequent day.

Effects

The primary ANF management activities that contribute to air quality emissions are timber harvest, all terrain vehicle (ATV) use, and prescribed fire. Fine particulate matter (PM), nitrogen oxides (NO_xs), volatile organic carbons (VOC), and carbon monoxide (CO) emissions from these activities contribute to the total pollution load and are the criteria pollutants addressed in this analysis. Ozone as a secondary pollutant is dependent on multiple factors for its formation and can not be estimated directly. However, NO_xs are the limiting factor in ozone production and can serve as an indicator for ozone. The goal here is to address the estimated emissions of critical pollutants from ANF management activities to assess whether or not they would significantly impact attainment of the NAAQS or significantly contribute to harmful conditions for humans in nearby communities. Therefore, potential emissions of these pollutants as they compare to four-county emissions will serve as indicators for air quality effects in the first step screening analysis. ***All counties near the project area are currently in attainment status for all criteria pollutants.***

4.12.3 Air Quality

Direct and Indirect Effects

Methods

The regional emissions data were obtained from the most recent and accurate emissions database available for this area. Currently, this is the 2002 VISTAS base case emissions database. The estimated emissions were derived from the emissions estimates used in the FEIS for the ANF LRMP. Three ANF management activities were analyzed using the same methods employed for the ANF LRMP FEIS (pp. 3-52 to 3-63): timber harvest, prescribed fire, and ATV trail use. It can be assumed that if predicted emissions from the proposed ANF management activities contribute a small enough percentage to the total pollution load, they would not impact attainment of the NAAQS. A percentage threshold of five percent has been chosen for the emissions comparison. If emissions from ANF management activities do not exceed five percent of the total pollution load in the region, they will be considered below our level of concern. The threshold of five percent was chosen to be very conservative in protecting air quality. Air regulations often include a five percent change as a threshold for more rigorous or refined air quality analyses. Although we are more concerned with emissions from ANF management activities on the NAAQS, this threshold seemed appropriate for this analysis because PSD increments represent a percentage of the total NAAQS.

Alternative 1 (no action)

There would be no newly proposed ANF management activities within the project area under the no action alternative and thus no additional emissions of pollutants (see Table 4-26).

Alternatives 2 and 3

Timber harvest and prescribed fire emissions for the Mead's Mill Project were analyzed and compared to the four-county air emissions area. Table 4-26 shows the direct and indirect air quality effects for the Mead's Mill Project.

Table 4-26: Direct and Indirect Air Quality Impacts from Proposed Timber Harvests in the Mead's Mill Project to the Four-County Area

Alternative	Pollutant	Rx Fire Emissions (Tons per Year)	Timber Harvest Emissions (Tons per Year)	ATV Emissions (Tons per Year)	ANF Management Emissions (Tons per Year)	4 county emissions (Tons per Year)	Percent ANF Management Increase of 4 county Emissions
Alt. 1	VOC	0.00	0.00	0.10	0.10	12,047	0.00
	PM	0.00	0.00	0.07	0.07	5,322	0.00
	NOx	0.00	0.00	0.02	0.02	11,188	0.00
	CO	0.00	0.00	0.00	0.00	66,765	0.00
Alt. 2	VOC	0.00	0.00	0.10	0.10	12,047	0.00
	PM	90.59	0.00	0.07	90.66	5,322	1.70
	NOx	0.77	0.00	0.02	0.78	11,188	0.01
	CO	546.80	0.01	0.00	546.81	66,765	0.82
Alt. 3	VOC	0.00	0.00	0.10	0.10	12,047	0.00
	PM	90.59	0.00	0.07	90.66	5,322	1.70

Alternative	Pollutant	Rx Fire Emissions (Tons per Year)	Timber Harvest Emissions (Tons per Year)	ATV Emissions (Tons per Year)	ANF Management Emissions (Tons per Year)	4 county emissions (Tons per Year)	Percent ANF Management Increase of 4 county Emissions
	NOx	0.77	0.00	0.02	0.78	11,188	0.01
	CO	546.80	0.01	0.00	546.81	66,765	0.82

Emissions from ANF activities in the Mead's Mill Project area do not increase four-county emissions by 5 percent and are therefore below the level of concern.

Smoke Sensitive Areas and Human Health Implications

Although there are many resource benefits associated with prescribed fire, as mentioned previously, the resultant smoke has potential to affect human health and public safety. Elevated levels of fine particulates are dangerous because they can penetrate deep into human lungs and increase the risk of serious health problems, especially for those with respiratory illnesses, even at levels below the NAAQS. Furthermore, when smoke plumes with high particulate concentrations intersect roads and highways, visibility is reduced and the likelihood of traffic accidents increases. Prescribed fires, particularly those that are smaller in size are short lived, lasting only a matter of hours. Burn plans will address smoke sensitive areas and employ mitigations to avoid "smoking in" these areas.

The project area for the Mead's Mill lies several miles just east of Warren, Pennsylvania, the largest community within the vicinity. There is a network of roads and major highways to the west, east and north of the project area. Given the location of the project area, burn managers will: 1.) Burn under meteorological conditions that will allow adequate smoke dispersion in the upper atmosphere rather than at ground level and; 2.) Burn on days where the predominate wind direction will send the smoke away from the community of Warren.

4.13.10 Air Quality - Cumulative effects analysis

Cumulative Effects

The original analysis for the Mead's Mill project area includes only prescribed fire from Mead's Mill and West Branch of Tionesta Project Areas compared to Warren County emissions. Due to the transient nature of air quality the scope of the analysis has been modified to include the four-county emissions area. Also only prescribed fire from Mead's Mill is included in this analysis. The effect of multiple projects with prescribed fires is shown in the Forest Plan FEIS Air Quality Analysis (p. 3-59 to 3-60).

Table 4-35: Cumulative Air Resource Effects

Alternative	Pollutant	OGD Emissions (Tons per year)	ANF Management Emissions (Tons per Year)	Cumulative Emissions (Tons per year)	4 county emissions (Tons per Year)	Percent Increase of 4 county Emissions
Alt. 1	VOC	1427.87	0.10	1427.97	12,047	11.85
	PM	31.74	0.07	31.80	5,322	0.60
	NOx	221.03	0.02	221.04	11,188	1.98
	CO	3671.48	0.00	3671.48	66,765	5.50

Alternative	Pollutant	OGD Emissions (Tons per year)	ANF Management Emissions (Tons per Year)	Cumulative Emissions (Tons per year)	4 county emissions (Tons per Year)	Percent Increase of 4 county Emissions
Alt. 2	VOC	1427.87	0.10	1427.97	12,047	11.85
	PM	31.74	90.66	122.39	5,322	2.30
	NOx	221.03	0.78	221.81	11,188	1.98
	CO	3671.48	546.81	4218.29	66,765	6.32
Alt. 3	VOC	1427.87	0.10	1427.97	12,047	11.85
	PM	31.74	90.66	122.39	5,322	2.30
	NOx	221.03	0.78	221.81	11,188	1.98
	CO	3671.48	546.81	4218.29	66,765	6.32

Note: ANF Management Emissions includes emissions from timber harvest, prescribed burning, and ATV use (from Table 1 in Review of Information – OGM Activity and Air Quality, Allegheny National Forest).

This analysis is based on the Response to Appeals Instructions air quality cumulative effects analysis. The cumulative air quality effects include ANF activities in the Mead’s Mill project area (page 5) and Oil and Gas Development (OGD) activities (reference section that discusses OGM predictions). There will be a 10% increase in VOC, a 5% increase in CO, a 2% increase in NOx, and 0.5 to 2% increase in PM for all alternatives (Table 2). With these increases in VOC and NOx, there will likely be an increase in ozone.

The 5% is a conservative reference point to display the level of potential change. It is not the threshold for significant adverse effects. The ANF activities will yield a very minor change from the 2002 four-county area (all less than 2%).

- **Appendix A, page 221 Item 4** - The following sentence is eliminated from paragraph 1: “The effects analysis in the vegetation management section will determine whether or not the stand activities will be dropped or carried forward. “

The following sentence replaces the above sentence and begins a new paragraph:

“This is a non-relevant issue because following the PADEP Best Management Practices will protect the spring location and water quality. The design criteria and mitigations from page 229 and 230 from Appendix B will exceed the state BMPs.”

- **Appendix C** - Drop end note 6 from Tables C-2 and C-5.