



United States
Department of
Agriculture

Forest
Service

**Southwestern
Region**

**Cibola
National
Forest and
National
Grasslands**



May 2011

Air Resources Specialist Report

Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands Plan Revision

Environmental Impact Statement Analysis

Submitted by: /s/ _____
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Cibola National Forest and National Grasslands

Air Resources Specialist Report

Introduction

This report discloses and evaluates the potential environmental consequences on the air resources that may result with the adoption of a revised land management plan. It examines, in detail, three different alternatives for revising the management direction from the 1985 Cibola National Forest Land Management Plan (only that which is relevant to the National Grasslands).

Relevant Laws, Regulations, and Policy that Apply

The Forest and Rangeland Renewable Resource Planning Act of 1974, as amended by the National Forest Management Act (16 USC 1602). This Act directs the Secretary of Agriculture to protect, and where appropriate, improve the quality of soil, water, and air resources.

The Clean Air Act, as amended in 1990 (42 USC 7401 et seq.), requires complying with all Federal, State, or local air control rules, regulations, and directives.

Methodology and Analysis Process

Air resources were assessed by reviewing available data relevant to air resources in the project area. The primary source of this data is the EPA website. The Forest Service does not have any air quality monitors in the project area.

Assumptions

In the analysis for this resource, the following assumptions have been made:

- The land management plan provides a programmatic framework for future site-specific actions.
- Land management plans do not have direct effects. They do not authorize or mandate any site-specific projects or activities (including ground-disturbing actions).
- Land management plans may have implications, or environmental consequences, of managing the forests under a programmatic framework.
- The plan decisions (desired conditions, objectives, standards, guidelines, management areas, monitoring) will be followed when planning or implementing site-specific projects and activities.
- Law, policy, and regulations will be followed when planning or implementing site-specific projects and activities.
- Monitoring will occur and the land management plan will be amended, as needed.
- We will be funded similar to past budget levels (past 5 years).
- The planning timeframe is 15 years; other timeframes may be analyzed depending on the resource (usually a discussion of anticipated trends into the future).
- Soil and Water Conservation Practices will be applied to all management activities as described in FSH 2509.22 (USDA, 1990).

Revision Topics Addressed in this Analysis

There was not an air resources section in the 1985 Plan. No issues specific to air resources; however there are some related topics. Climate change was not addressed in the 1985 Plan for any resource. Information from the Southwest Region Climate Change Trends and Forest Planning (USDA, 2010) was used to consider climate change effects to air resources. Issues identified in the Notice of Intent (Federal Register, 2010) include the effect of human influences of the grasslands from livestock grazing, energy development, mining reclamation, miscellaneous forest products, mineral materials, and fire management.

Summary of Alternatives

Alternative A is the 'no action' alternative, meaning there is no change from the current management direct as found in the existing plan (USDA, 1985). There is no direction in the existing plan for air resources.

Alternative B is the preferred alternative. Alternative B includes a desired condition for air resources. This condition is that air quality conditions are at acceptable attainment levels on the Grasslands. The Mills Canyon Management Area would be implemented to preserve the scenic and recreational qualities within the Canyon.

Alternative C is similar to alternative B in all ways except that it recommends that part of the Canadian River Inventoried Roadless Area be designated as the Canadian River Potential Wilderness Area.

Description of Affected Environment (Existing Condition)

Of the three states that contain the Grasslands, only New Mexico has identified Airsheds. Texas and Oklahoma reference their air quality based on the county or descriptions of non-attainment or maintenance areas.

The Kiowa NG is located within the Canadian River Airshed, as defined by the New Mexico Environment Department's Smoke Management Program (NMED, 2005). Based on the EPA's 2010 non-attainment designations for the six criteria pollutants, the counties within the Canadian River Airshed are in attainment for all six pollutants (ground-level ozone, particulate matter pollution at 2.5 and 10 micrometers, lead, carbon monoxide, sulfur dioxide, and nitrogen oxides) (USEPA, 2010a). The Black Kettle, McClellan Creek, and Rita Blanca NGs are split between Texas and Oklahoma. The associated counties covering these NGs are in attainment for all six pollutants (USEPA, 2010a).

The regional emissions data were obtained from the EPA's AirData tool for the year 2002 and from the National Emissions Inventory (NEI) for the year 2008. Based on emissions data from 2002 to 2008, the overall trend was a decrease in all criteria air pollutants measured (excludes ozone and includes volatile organic compounds) in the four counties covering the Kiowa NG (USEPA, 1990, USEPA, 2008). The projected trend out to 2018, using the Forest Service's Emissions Tool11, indicates a continued decrease in criteria pollutant emissions except particulate matter PM10 and PM2.5. It is not clear at this time why there are slight increases, but these increases are slight and do not exceed NAAQS or state standards. To date there have been no

documented exceedances of the NAAQS due to NG activities. This trend is expected to continue over the next five to ten years.

Based on emissions data from 2002 to 2008 from the EPA AirData tool and the NEI, the overall trend was a decrease in all criteria pollutants except a small increase in sulfur dioxide emissions and large increase in volatile organic compounds (VOCs), in the five counties covering the Black Kettle, McClellan Creek, and Rita Blanca NGs. From 2002 to 2008, the VOCs doubled due to large increases in emissions in Hemphill County in Texas and Roger Mills County in Oklahoma, both of which comprise the Black Kettle National Grasslands. The increase in emissions in 2008 can be attributed to petroleum and related industries. Although VOCs are not currently regulated by the USEPA, they do react with nitrogen oxides to form ozone, which is a USEPA regulated criteria pollutant. Even with the doubling of VOC emissions in Hemphill County, it is still in attainment for ozone.

In general, the projected trend out to 2018 using the Forest Service's Emissions Tool¹¹ shows decreases in the criteria pollutant emissions. Increases in nitrogen oxides in Roger Mills County, Oklahoma, and carbon monoxide and sulfur dioxide in Gray County, Texas, are predicted. There are also projected increases in ammonia and VOCs, which may be due to further increases in oil and gas development or higher levels of urbanization in these counties. There have been no documented violations of the NAAQS in the counties the Black Kettle, McClellan Creek, or Rita Blanca NGs cover due to Grassland activities. This trend is expected to continue over the next five to ten years.

Emissions from activities on and off the Grasslands include emissions from vehicles, dust from unsurfaced roads, cropland, construction sites, bare ground, campfires, prescribed fire, wildfire, and oil and gas developments. Oil and gas developments are regulated for emissions and required to have emission controls in all three states. Emissions related to fire are regulated through state's smoke management plans. Emissions from vehicles, dust, and campfires are not regulated. There is no monitoring to know the effect, range, or variation in these emissions. Prescribed fire is the most notable land management activity that takes place on the Grasslands that has implications on air quality; however, this has not contributed to long term adverse air quality. All projects, including prescribed burns, must meet State air quality standards and smoke management plans once finalized (USDA Forest Service 1999, USDA Forest Service 2000).

Environmental Consequences

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carryout any project or activity. Because the land management plan does not authorize or mandate any site-specific activities or ground-disturbing actions there can be no direct effects. However, there may be implications, or longer term environmental consequences, of managing the forests under this programmatic framework.

The main difference between alternative is that alternatives B and C have a desired condition for air resources, and Alternative A does not. Since the desired condition for air resources listed in alternative B and C is regulatory, there really is no difference between the alternatives as to how air resources are managed on the Grasslands.

Emissions from management activities include emissions from vehicles, dust from unsurfaced roads and bare ground, campfires, prescribed fire, wildfire, and oil and gas developments. Oil

and gas developments are regulated for emissions and required to have emission controls in all three states. Emissions related to fire are regulated through state's smoke management plans. Emissions from vehicles, dust, and campfires are not regulated. There is no monitoring to know the effect, range, or variation in these emissions. However, they have not resulted in any violations of the national ambient air quality standards (NAAQS). It appears the levels of emissions produced by these activities are below the NAAQS and do not result in non-attainment. The levels of these emissions are expected to stay below NAAQS through the next 15 years.

Cumulative Environmental Consequences

Air quality regulation has recently required to states complete State Implementation Plans. These plans are enforceable documents which described how states will comply with air quality standards. All of the three states are working on or have completed these plans (USEPA, 2010b). The net effect of these plans is to reduce or maintain levels of air pollutants. Fire and oil and gas development is part of these plans. These plans are expected to reduce air pollution overall. As a result, none of the alternatives would contribute to cumulative effects from emissions to the air.

Unavoidable Adverse Impacts

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carryout any project or activity. Before any ground-disturbing actions take place, they must be authorized in a subsequent environmental analysis. Therefore none of the alternatives cause unavoidable adverse impacts.

Irreversible and Irretrievable Commitment of Resources

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carryout any project or activity. Because the land management plan does not authorize or mandate any ground-disturbing actions, none of the alternatives cause an irreversible or irretrievable commitment of resources.

Adaptive Management

All alternatives assume the use of adaptive management principles. Forest Service decisions are made as part of an on-going process, including planning, implementing projects, and monitoring and evaluation. The land management plan identifies a monitoring program. Monitoring the results of actions will provide a flow of information that may indicate the need to change a course of action or the land management plan. Scientific findings and the needs of society may also indicate the need to adapt resource management to new information. The Forest Supervisor annually evaluates the monitoring information displayed in the evaluation reports through a management review and determines if any changes are needed in management actions or the plan itself. In general, annual evaluations of the monitoring information consider the following questions:

- What are the effects of resource management activities on the productivity of the land?
- To what degree are resource management activities maintaining or making progress toward the desired conditions and objectives for the plan?

- What changes are needed to account for unanticipated changes in conditions?

In addition to annual monitoring and evaluation, the Forest Supervisor reviews the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly. The forest plan is ordinarily revised on a 10-year cycle and the Forest Supervisor may amend the plan at any time.

Consistency with Law, Regulation, and Policy

All alternatives are designed to guide the Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands' management activities in meeting federal law, regulations, and policy.

List of Preparers

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