

Rio Grande National Forest – Assessment 2 Air Quality, Soils and Geology, and Watersheds and Water Resources – Executive Summary



Introduction

This document is a brief summary of the first step in the forest planning process; our assessment, and public input we solicited; for air quality, soils and geology.

It is important that we protect air quality, soil, and water resources on the forest. The public values the clean air and sweeping vistas that national forests provide. Poor air quality affects forest resources such as forest health, visibility, water quality, aquatic organisms, or heritage resources.

Soil is the foundation of ecosystem function. It acts as a growth medium and provides nutrients for vegetation, stores and filters water, cleans air, contains habitat for billions of organisms, and is a long-term carbon storage reservoir. Soils can lose much of their function when altered through management actions as well as natural events.

Watersheds and water resources are the most important assets managed by the Rio Grande National Forest. Protecting water quantity, quality, and timing of flows; and the watersheds from which water resources are derived, is critical to sustaining ecosystem functions of the forest, and the socio-economics of the San Luis Valley and areas further downstream.

What We Asked

We held three public meetings to collect input specific to water and soil issues. Peak Facilitation and the National Forest Foundation facilitated the meetings, which were held on March 16, 2015 in Creede, CO; on April 7, 2015 in Alamosa, CO; and on April 28, 2015 in Saguache, CO. Approximately 65 people attended these meetings. In addition, the National Forest Foundation provided a web-based tool that allowed us to ask the same set of questions to those who could not be at the meetings.

We also participated in meetings held by members of the water community from March through July, 2015; including the Rio Grande Roundtable, Rio Grande Water Users, Rio Grande Water Conservation District, Conejos Water Conservation District, Rio Grande Senior Water Users, San Luis Valley Ecosystem Council, Trout Unlimited, San Luis Valley Cattleman's Association and Conejos County Clean Water.

We asked the same questions at meetings and on-line to give us consistent input for the assessment process, covering topics such as water and soil quality, watershed health, water supply, and ecosystem services.

- Is high water quality and soil productivity being maintained on the Rio Grande National Forest?
- What management activities on or off the forest threaten or impair water quality (surface and groundwater) or soil productivity?
- What uses on and off the forest are dependent on clean water and productive soils?
- Are there places on the forest where water quality or soil quality/productivity are at risk or are not adequately protected? Where are they?
- What factors are impacting water quality and soil productivity?
- Are watersheds and riparian ecosystems on the Rio Grande National Forest and surrounding areas healthy and properly functioning?
- What management activities and infrastructure impact watershed health, water quality, and/or aquatic species?
- What historical land use patterns shaped the existing ecological condition for water resources and riparian areas?
- Are there places on the forest where watersheds or riparian ecosystems are functioning at risk or being degraded? If so, where are they?
- What natural processes are affecting watersheds, riparian areas or aquatic species?
- What factors are impacting watershed or riparian health?
- How do water and soil resources on the Rio Grande National Forest contribute to social, cultural, and economic sustainability?
- What land use activities compete with each other for water resources, including non-consumptive and consumptive uses?
- Is there an adequate supply of surface and groundwater to meet current and future demands?
- How do existing and forecasted land use patterns and activities affect availability, quality, or quantity, timing or distribution of water resources?

What We Heard

We heard several issues consistently.

Tree Mortality and Sedimentation

The forest needs to address spruce beetle mortality; which affects many things including but not limited to water quality and watershed health, safety issues related to tree fall, and economic sustainability. These dead trees can cause accelerated runoff and sedimentation and degraded reservoirs and other water sources. If there is a fire, it can be followed by erosion and flooding.

Other Sediment Sources

The forest should identify and manage other sources of sediment such as ATV trails, and should increase water monitoring.

Infrastructure Maintenance

The forest needs better access and ability to maintain irrigation structures, such as dams and diversions, in wilderness. Lack of maintenance may lead to erosion issues, but under the current regulations, this maintenance work takes too long and is too intensive. There could be a waiver tool for maintaining these structures in wilderness.

Management Intensity

The forest should increase management intensity; in terms of the amount of timber harvested, amount of planting, and amount of prescribed fire and controlled burns.

Where We're Headed

Based on information in our assessment and what we heard from the public regarding air quality, soils and geology, and watersheds and water resources; there is little to no need for us to change the existing Forest Plan. We are in compliance with the Clean Air Act and Colorado Air Quality Control Act and are also meeting the Forestwide objective of protecting the environment from air pollution. Our monitoring indicates we are meeting existing direction when best management practices are properly implemented at the project level. There are occasions when we identify concerns during project reviews but these concerns are not Forest Plan standard-related; rather they are related to improperly implementing one or more watershed conservation practices.

However, it is critical we remain diligent in providing the desired condition for air, soil and water resources. To that end we should continue developing, adjusting, and implementing the air resources, soil resources, and watershed and water resources programs. This includes updating the existing Forestwide air monitoring plan and possibly preparing Forestwide soil resource and water resource monitoring plans. We should consider adaptive strategies designed to protect and preserve the watersheds and air, soil, and water resources from existing off-Forest sources of pollution and the potential effects of climate change.

Changes Needed Due to Law, Regulation or Policy

We need to update the standards and guides section of the existing plan to incorporate the Watershed Conservation Practices Handbook, the National Best Management Practices program, and the Watershed Condition Framework, key parts of the 2012 Planning Rule.

We need to update the water uses and rights information in the existing Forest plan to incorporate the Water Division 3 Decree. The current administration of federal reserved water rights to the forest

boundary through a decree with the State of Colorado's Division of Water Resources is working and meets the needs of the forest and the public.

DRAFT