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Accelerated Watershed/Vegetation Restoration Plan (AWRP)

**A Ten-Year Strategy for the Rio Grande
National Forest**

Rio Grande National Forest



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I. Introduction

This strategy represents a comprehensive approach to the management of wildland fire, hazardous fuels, and ecosystem restoration on the Rio Grande National Forest and surrounding lands. This strategy emphasizes measures to reduce the risk to communities and the environment and provides an effective framework for collaboration to accomplish this. A Five-year Action Plan for the Forest accompanies this strategy and articulates the specific projects and the outcomes expected on the land.

To develop this strategy, the Forest relied on several reference documents to help guide our efforts: 1) the 1996 Revised Land and Resource Management Plan for the Rio Grande National Forest (Forest Plan); 2) A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-year Comprehensive Strategy (2001) and its accompanying Implementation Plan (2002); 3) Protecting People and Sustaining Resources in Fire-adapted Ecosystems: A Cohesive Strategy (2000); 4) Rocky Mountain Region National Fire Plan (2003); and 5) The Role of Timber Sales in Managing Forest Vegetation: A Strategy for Achieving Resource Objectives (2003).

Since creation of the National Fire Plan, the Rio Grande National Forest has significantly increased its emphasis on fire and fuels management. Additional personnel and equipment have been added; additional leadership has been added; and Forest line officers have stressed increased importance on fire and fuels management. The recent Healthy Lands Initiative and, most recently, the Accelerated Watershed/Vegetation Restoration Plan (AWRP) have again increased leadership's emphasis on fire and fuels management coupled with an emphasis on healthy forests and watersheds. The headwaters of the Rio Grande River originate within the Rio Grande National Forest. Stewardship of this Forest is integrally linked to downstream resources and people in southern Colorado, New Mexico, Texas, and Mexico.

The AWRP emphasizes improvement of watershed health, increased tree and shrub vigor, and strategic placement of resources and treatments in landscapes with the highest risk, including the Wildland Urban Interface (WUI) and municipal watersheds. The Forest's 10-year Strategy tiers to the national 10-year Comprehensive Strategy, ties to the Region's National Fire Plan Business Plan, and meets the intent of the AWRP. A Five-year Action Plan for the Rio Grande National Forest accompanies this strategy and is an integral component of the Forest's overall approach to the AWRP.

Vision Statement

The Rio Grande National Forest has a totally integrated fire and fuels program that involves all related resource areas for a common goal of watershed and vegetation restoration. The highest priority is to place resources and treatments in landscapes where wildland fire poses an adverse risk to communities and to the environment. Collaboration and partnership opportunities are sought out and relationships developed to enhance ecosystem restoration within the San Luis Valley.

II. National Strategy Review

The Rio Grande National Forest's 10-year Strategy closely follows the national strategy document referenced above (document number two referenced above). The National 10-year Comprehensive Strategy states the following:

The need for a 10-Year Comprehensive Strategy to reduce the risk of wildland fire to communities and the environment is the result of:

- ☞ A high level of growth in the wildland urban interface that is placing more citizens and property at-risk of wildland fire.*
- ☞ Increasing ecosystem health problems across the landscape.*
- ☞ An awareness that many of the past century's traditional approaches to land management, the development of unnaturally dense, diseased or dying forests, and treatment of wildland fire have contributed to more severe wildland fires and created widespread threats to communities and ecosystems.*
- ☞ Millions of acres of land nationwide are presently classified as being at high risk from wildland fire.*

The National 10-year Comprehensive Strategy contains core principles, goals, and actions. The three guiding core principles are briefly:

Collaboration among governments and broadly representative stakeholders.

Priority Setting that emphasizes the protection of communities and other high-priority watersheds at-risk.

Accountability through performance measures and monitoring for results.

The goals of the 10-year Comprehensive Strategy are:

1. Improve Prevention and Suppression
2. Reduce Hazardous Fuels
3. Restore Fire-Adapted Ecosystems
4. Promote Community Assistance

These core principles and goals from above are the foundation for the Rio Grande National Forest's 10-year Strategy. Specific actions are contained in the Five-year Action Plan for the Rio Grande National Forest that accompanies this strategy. Our strategy also heavily relied upon the Rocky Mountain Region National Fire Plan Business Plan (2003).

III. Rio Grande National Forest 10-year Strategy

The Rio Grande National Forest 10-year Strategy utilizes the four goals from the National 10-year Comprehensive Strategy. The actions associated with each goal are derived from the Rocky Mountain Region National Fire Plan Business Plan (2003). These actions have been tailored to fit the management situation relevant to the Rio Grande National Forest. We consider this strategy to be dynamic and subject to annual review as national and regional direction evolve. Also, as we gain more experience with fire and fuels management on this Forest, there may be a need for additional or revised actions.

Goal 1. Improve Prevention and Suppression

Desired Outcome -- *Losses of life are eliminated, and firefighter injuries and damage to communities and the environment from severe, unplanned and unwanted wildland fire are reduced.*

Actions

- ✍* Coordinate annual preparedness in the San Luis Valley amongst Federal, State, and local volunteer fire department firefighting resource capability and readiness to protect communities and the environment from wildland fires. Ensure that mutual aid and pre-season agreements are in place by March 31st each year.

- ✍* Ensure the Forest has appropriate staffing and equipment for initial attack, commensurate with budget appropriations, on an annual basis. Strive to have in place a cadre of Forest personnel trained to effectively respond to and manage extended attack scenarios.

- ✍* Improve fire suppression decision-making by line officers and fire managers regarding the outcomes of their decisions, risks, placement of firefighting resources, suppression tactics, and costs. Ensure appropriate training is acquired by responsible officials. Ensure the Forest safety plan is adhered to in the execution of suppression activities.

- ✍* Reduce the incidence of human injury and property damage resulting from catastrophic wildland fires.

- ✍* Ensure that the Forest has a primary and secondary contact for critical habitat issues and Threatened, Endangered, and Sensitive (TES) species issues for emergency consultation.

- ✍* Expand outreach and education to homeowners and communities about fire prevention in the San Luis Valley through use of radio interviews, press releases to local newspapers, education contacts with the local school system, and dissemination of FIREWISE programs (<http://www.firewise.org>).

Goal 2. Reduce Hazardous Fuels

Desired Outcome -- *Hazardous fuels are treated, using appropriate tools, to reduce the risk of unplanned and unwanted wildland fire to communities and to the environment.*

Actions

- ✍ Reduce the total number of acres at risk to severe wildland fire in and around the Rio Grande National Forest. Seek out areas in need of fuel treatment to maintain ecological integrity in fire-adapted ecosystems. In collaboration with interagency and intergovernmental partners, design and implement a process for prioritizing fuel treatment areas in order to restore or maintain desirable vegetation/fuel conditions in the San Luis Valley.
- ✍ Annually, review the skills needed on the Rio Grande National Forest in order to accomplish fuels treatment and develop a corresponding recruitment plan.
- ✍ In collaboration with interagency and intergovernmental partners, design and implement a process for prioritizing WUI areas for fuel reduction actions in the San Luis Valley. Invest a significant portion of the hazardous fuel treatment funds in WUI areas.
- ✍ Map known municipal watersheds and areas of critical resource values on the Rio Grande National Forest. In collaboration with interagency and intergovernmental partners, design and implement a process for prioritizing fuel reduction actions in municipal watersheds, TES species habitat, and other areas of critical resource values.
- ✍ Ensure a current, signed Fire Management Plan is in place for the Rio Grande National Forest.
- ✍ Assure maintenance of areas improved by fuels treatment by managing activities permitted on the restored lands to maintain their resiliency.

Goal 3. Restore Fire-Adapted Ecosystems

Desired Outcome -- *Fire-adapted ecosystems are restored, rehabilitated and maintained, using appropriate tools, in a manner that will provide sustainable environmental, social, and economic benefits.* NOTE: The Rio Grande NF takes a broad interpretation of this goal to include restoration of all forest ecosystems and watersheds, regardless of fire regime.

Actions

- ✍ Prioritize improving critical watershed conditions (restoring hydrologic processes) and improving forest health, including tree vigor. Place priority on improving habitat quality and conserving critical wildlife, fish, and plant populations. Improve ecosystem resiliency.

- ✍ Reduce the spread of invasive species that negatively impact natural fire cycles and fire-adapted ecosystems.
- ✍ Use native seed, where feasible, to restore ecosystems.
- ✍ Prioritize rehabilitation and restoration work to protect life, property, protect municipal watersheds, and prevent further degradation of critical cultural and natural resources. Ensure short-term (BAER) and long-term restoration plans are coordinated and in place. Ensure “Best Management Practices” are applied.
- ✍ Place priority on at risk watersheds that have been damaged by wildland fire.
- ✍ Prioritize the repair or replacement of facilities and infrastructure damaged by fire based on human safety, protecting property, and long-term projected need.

Goal 4. Promote Community Assistance

Desired Outcome -- *Communities at risk have increased capacity to prevent losses from wildland fire and the potential to seek economic opportunities resulting from treatments and services.*

Actions

- ✍ Reduce potential losses that may occur to communities and individuals as a result of wildland fire. The Rio Grande National Forest will seek to improve qualifications and availability of firefighters, crews, overhead and equipment for initial attack, mutual aid, extended attack and large fire support among our local partners and cooperators.
- ✍ Encourage mitigation projects on private property and help locate markets for small diameter and other less valuable woody by-products. This may be accomplished by the Rio Grande National Forest seeking out markets for by-products from hazardous fuel treatment and ecosystem restoration activities.
- ✍ Maintain or enhance current levels of domestic livestock grazing on the Rio Grande National Forest as part of fine fuels treatment reducing fire ignition potential and fire spread potential. Local economies are also supported with federal land grazing authorizations.
- ✍ Continue to promote fire-sensitive land use planning by maintaining close communication with County Commissioners.

- ☞ Encourage private landowners to address defensible space and fuels treatment needs on their own private property by informing landowners of local government assistance programs, provide technical assistance, and assuring public knowledge and understanding of wildland fire risk is readily available.

IV. Forest Situation and Challenges

Approximately 10% of the Forest is in Fire Regime 1, 2, or 3 and Condition Class 2 or 3¹ (Figure 1). Accomplishing vegetation restoration on these acres will be completed within approximately 10-15 years. Conversely, approximately 80% of the Forest's vegetation is in Fire Regime 4 or 5 and Condition Class 1. These are extensive areas of spruce/fir forest with existing and growing insect and disease concerns that make this an urgent priority for vegetation treatment. The most serious insect problem on the Forest is spruce beetle (*Dendroctonus rufipennis*).

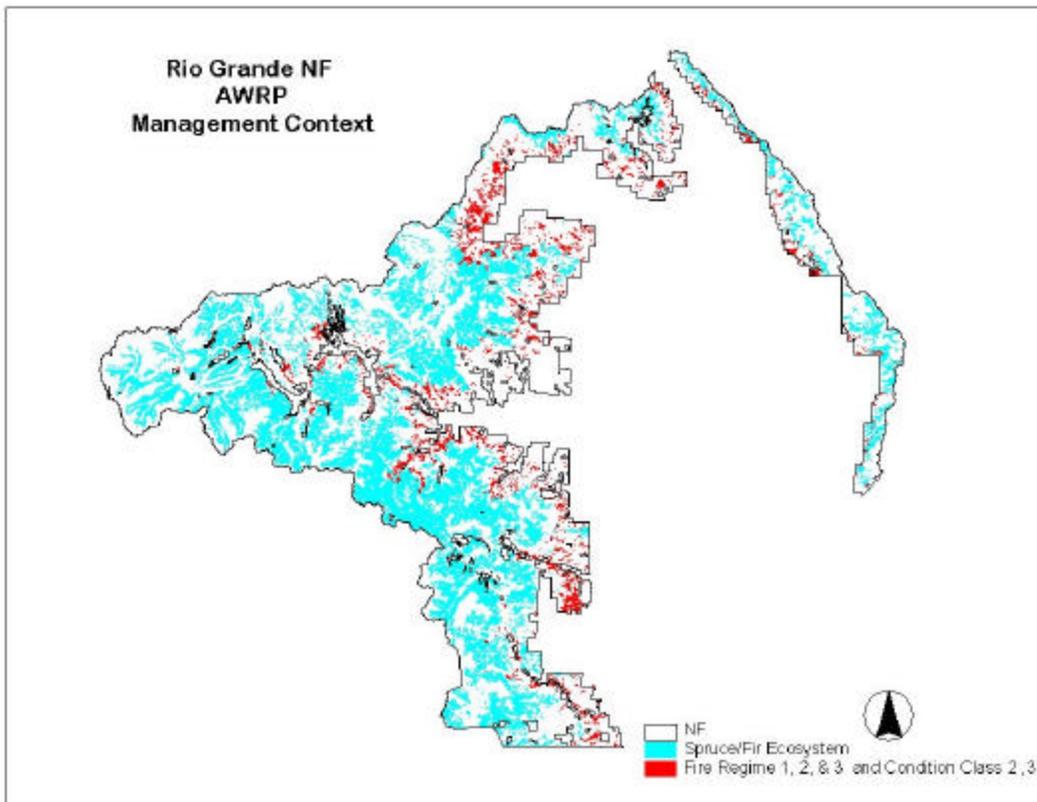


Figure 1. Management context for the Rio Grande National Forest.

¹ Fire Regimes and Condition Classes are defined in: Schmidt, Kirsten M.; Menakis, James P.; Hardy, Colin C.; Hann, Wendall J.; Bunnell, David L. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD. Also see: USDA Forest Service. 2000. Protecting People and Sustaining Resources in Fire-adapted Ecosystems: A Cohesive Strategy. Forest Service response to the General Accounting Office Report GAO/RCED-99-65 October 13, 2000. 85 p.

Large-scale spruce beetle infestations have been well documented throughout the United States². Recent examples include the spruce beetle outbreak in Alaska where more than 2.3 million acres of forest were impacted over a seven-year period and the on-going outbreak in Utah that has impacted hundreds of thousands of acres in the last few years. The occurrence of spruce beetle infestations on the Forest has increased significantly the last few years and this may be the beginning of a large-scale spruce beetle outbreak similar to those in Alaska and Utah. Management to suppress spruce beetle outbreaks is on-going on the Twister, Grouse Creek, Spruce Hole, La Manga, and Fern Creek Timber Sales. The Forest is currently working on the National Environmental Policy Act (NEPA) analysis needed to treat spruce beetle in the County Line Analysis Area. Two additional spruce beetle populations were discovered last year in the Puddles and Finger Mesa project areas; control activities in these areas are not yet planned.

Most of the spruce/fir forest consists of large diameter trees with high basal areas and they are predominantly Engelmann spruce with little age class diversity. These stands are highly susceptible to spruce beetle infestations. The combination of highly susceptible stand conditions along with mild winters, drought conditions, and a large number of beetles, suggests that spruce mortality could rapidly accelerate. The Forest recently completed a Focused Assessment on the Conejos Peak Ranger District for spruce beetle to determine the best course of action. Similar assessments are planned for the rest of the Forest. The Forest is aggressively treating the spruce beetle outbreak within its funding ability. However, the scale of this outbreak is enormous. These stands are commercially valuable and they provide important lynx habitat.

The potential exists for catastrophic wildfire as red-needle canopy develops (increased fire ignition and spread potential) coupled with increased fuel loadings as trees fall (increased severity once fire initiates). However, under current national and regional emphasis, these spruce/fir stands are lower priority for restorative measures because current emphasis is placed on changing condition class within Fire Regimes 1, 2, and 3. If the Rio Grande National Forest is not able to focus on these spruce/fir stands, future wildland fire threat is increased, fires will burn with increased intensity growing to larger sizes more quickly and may result in increased private land impacts. We acknowledge that this scenario is dependent on numerous variables including time since last disturbance, topographic position, and weather during windows of potential ignition.

Fuels reduction planning and implementation is the highest priority on the Rio Grande National Forest and the availability of personnel to these efforts is emphasized. The organization may need to be further enhanced with a dedicated fire planner and other dedicated support specialists. Even with this increased emphasis, it remains a challenge to implement some projects. Burn windows are always restrictive and San Luis Valley wind and weather patterns narrow the window even more. Coupled with the extended recent drought

² See Romme, William H. et al. 1999. Landscape Condition Analysis for the South Central Highlands Section, southwestern Colorado and northwestern New Mexico. Unpublished report on file at the Supervisor's Office, USDA Forest Service, Monte Vista, Colorado. Also see: 1996 Final Environmental Impact Statement for the Forest Plan, Appendix A, Range of Natural Variability Report.

and stressed vegetation conditions, an even greater challenge is presented. Conducting prescribed fire and accomplishing objectives while remaining within prescription is challenging. Extremely low live fuel moisture content in grasses, forbs, shrubs, and trees makes for increased consumption and erratic fire behavior. For these reasons, an aggressive mechanical treatment program for vegetation is intended to help augment prescribed fire treatments.

Generally the entire Forest will share personnel to implement a prescribed burn on any single ranger district. Additionally, our ability to plan and implement prescribed fire projects is enhanced by our Service First organization enabling Forest Service and Bureau of Land Management (BLM) employees to work together very quickly and efficiently. However, when multiple projects line up to be implemented on the same day, the Forest is severely lacking in resources. The Forest has borrowed personnel from adjacent units and will continue to do so. It is inevitable that delays in project implementation will occur due to what can be labeled as a severely limited workforce. The Rio Grande National Forest is a large Forest with a limited number of personnel. On a given day, we may be incapable of mobilizing adequate numbers of qualified people to conduct multiple burns.

Preliminary coordination of the Federal and State Agencies in the San Luis Valley are underway. An existing Draft Memorandum of Understanding (MOU) between the BLM, National Park Service, Fish and Wildlife Service and the State of Colorado detailing cooperatively staffing and managing an engine is nearing completion. Valley-wide mutual target accomplishment currently takes place and efforts to share accountability are being made. Boundary-less behavior is currently exhibited through pursuit of a Valley-wide fire management plan and formalization continues.

Internal and external influences that do affect the Forest's ability to fully implement this 10-year Strategy and the Five-year Action Plan follow (*possible solutions provided in italics*):

- ?? Significant delays can be encountered due to gaining all required clearances including Endangered Species Act compliance, Regional Sensitive Species requirements for plants and wildlife, and cultural clearances. *Ensure projects are planned with sufficient lead time to secure timely clearance. Take advantage of Level 1 teams to help prioritize TES areas for treatment, design projects, streamline ESA consultation, and implement the Joint Counterpart Endangered Species Act (ESA) Section 7 Consultation regulations.*
- ?? Local county commissioner resistance to treatment actions that may produce smoke or slash that is visually objectionable. *Utilize the Forest Conservation Education Specialist, Forest Public Affairs Officer, and Line Officers to inform the local county commissioners of the benefits of fuel treatments. Utilize a combination of mechanical and prescribed fire treatments to help reduce smoke issues.*
- ?? National Environmental Policy Act (NEPA) delays based on potential appeals and or litigation that could be raised by special interest groups, private citizens, and local governments. *Continue collaborative efforts with stakeholders and reinforce our need*

to address forest health issues and make strong ties to the Chief's Four Threats (Fire and Fuels; Invasive Species; Loss of Open Space, and Unmanaged Recreation).

?? Private landowners may be resistant to certain treatments that may cause smoke and/or slash. *Utilize the Forest Conservation Education Specialist and the Forest Public Affairs Officer to inform the public of the benefits of fuel treatments. Utilize a combination of mechanical and prescribed fire treatments to help reduce smoke issues.*

Every effort possible will be made to mitigate potential impact of these external influences by Rio Grande National Forest employees at all levels. The importance of the AWRP has been clearly communicated to Forest employees and we will put forth considerable energy to accomplish this program of work.

In summary, the Rio Grande NF, in total coordination/cooperation with federal, state, and local partners has aggressive plans and intentions to fully implement AWRP in the San Luis Valley. This presents a huge challenge, however, the Rio Grande National Forest faces this challenge with utmost support and enthusiasm.

V. Monitoring and Evaluation

A formal review process will be established on the Rio Grande NF to monitor and evaluate performance, suggest revisions, and make necessary adaptations to the strategy at all levels on an annual basis. Revisions will also integrate new information obtained from scientific research as well as third party review and analysis.

Monitoring and Evaluation - Implementation Tasks

Meet quarterly to discuss the Five-year Action Plan progress and effectiveness and recommend changes as needed.

Collaboration Level: San Luis Valley-Wide

Lead Collaborator: RGNF

Implementation Timeframe: Ongoing

Compile accomplishment information from all federal local and state agencies in the SLV and report to RGNF.

Collaboration Level: San Luis Valley-Wide

Lead Collaborator: RGNF

Implementation Timeframe: Annually

Conduct monitoring of selected collaboratively developed projects and activities to assess progress and effectiveness of planning and implementation.

Collaboration Level: San Luis Valley-Wide

Lead Collaborator: RGNF

Implementation Timeframe: Annually