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**Forest Service**  
Rio Grande National Forest

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# Accelerated Watershed/Vegetation Restoration Plan (AWRP)

**A Five-Year Action Plan for the Rio  
Grande National Forest**

*Rio Grande National Forest*



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## CONTENTS

<b>I. Introduction</b>	<b>1</b>
<b>II. Goals, Outcomes, and Performance Measures</b>	<b>2</b>
<b>III. Project Implementation</b>	<b>5</b>
<b>IV. Local Issues and Support</b>	<b>12</b>
<b>V. Accountability</b>	<b>13</b>
<b>VI. Assistance Needed</b>	<b>13</b>

### **Appendices**

Appendix A -- Proposed AWRP Project Schedule FY04 – FY08.	A-1
Appendix B -- Proposed AWRP Project Location Maps by Fiscal Year.	B-1
Appendix C – Wildland Urban Interface (WUI) areas in relation to the Rio Grande National Forest.	C-1
Appendix D -- Proposed AWRP Project sequencing, by Fiscal Year, for the Watershed Program and the Scenic Resource Program.	D-1
Appendix E – Fire Regimes and Condition Classes Defined.	E-1

## I. Introduction

This Five-year Action Plan accompanies and ties to the document titled, “Accelerated Watershed/Vegetation Restoration Plan (AWRP): a Ten-Year Strategy for the Rio Grande National Forest.” The 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. The Strategy emphasizes measures to reduce the risk to communities and the environment and provides an effective framework for collaboration.

The Forest’s Five-year Action Plan is an implementation schedule of the 10-year Strategy for fiscal years 2004 through 2008. It details the specific actions, projects, and expected outcomes on the land that meet the intent of the AWRP. The Five-year Action Plan is intended to be flexible as national and regional priorities evolve and as Forest landscape and species assessments are completed and reviewed. Projected project implementation scheduling may depend on ongoing monitoring and review by an interdisciplinary team, prior planning, and meeting other requirements that sometimes require adjustment due to shifting priorities. The Forest’s Five-year Action Plan acknowledges this dynamic setting, and Forest personnel understand that the Action Plan may need to be adjusted over time.

Important aspects of managing the Rio Grande National Forest, within the context of this Action Plan, are to: 1) restore forest and rangeland ecosystems; 2) protect Wildland Urban Interface (WUI) areas, key watersheds, and municipal water sources; 3) provide for biological diversity and species viability; 4) ensure that homes are safe from wildland fires; and 5) support local economies. In order to ensure the overall ecosystem health, diversity, and productivity of this Forest, it is critical to apply vegetation management that is scientifically based and timely.

The Five-year Action Plan utilizes a combination of vegetation treatment tools in order to meet the goals of the AWRP. Vegetation may be treated by prescribed fire, mechanical means (chipping, thinning, etc.), herbicide applications, livestock grazing, and so forth. Often, a fuels reduction treatment may have multiple secondary benefits, for example, reducing fuels in a fire-prone WUI area may also enhance wildlife habitat or provide valuable commercial timber products. A key facet of the Five-year Action Plan is that Forest personnel actively capitalized on opportunities to integrate vegetation treatments across all resource functions with a common focus on meeting the goals of AWRP. This integrated approach will be part of the Forest’s interdisciplinary monitoring of new information and opportunities generated by Forest assessments and/or project accomplishments.

The AWRP is a regional and forest effort to strategically implement the National Fire Plan goals and objectives while addressing one of the Chief’s four threats -- specifically fire and fuels. The AWRP is an accelerated evolution of the National Fire Plan and emphasizes:

- 1. improvement of watershed health,**
- 2. increased tree and shrub vigor, and**

**3. strategic placement of resources and treatments in landscapes with the highest risk, including the Wildland Urban Interface (WUI) and municipal watersheds.**

The achievement of the above will also result in the restoration of forest health (and improved habitat) in critical watersheds. It will restore ecosystem health over the long term and insure improvement of fish and wildlife habitats, with an emphasis on threatened and endangered (TE) species habitats. The AWRP is a shift in focus from individual, short-term resource benefits to long-term ecosystem health

## **II. Goals, Outcomes, and Performance Measures**

Accountability is a key component of the AWRP. The Five-year Action Plan provides a framework for measuring progress toward achieving the Forest’s 10-year Strategy. The broad goals and outcomes from the 10-year Strategy are intended to remain relatively constant over time, but the actions may evolve as national and regional direction evolves. Also, as we gain more experience with fire and fuels management on this Forest, there may be a need for additional or revised actions. We expect the results of Forest assessments to offer new opportunities and suggest possible changes in action.

Performance measures are intended to track how well the Forest is progressing toward meeting desired outcomes. The Forest’s Leadership will periodically evaluate the trend of performance measures and decide if the goals and desired outcomes are being met (and at an acceptable rate of progress). Based on the results of this review, the Five-year Action Plan may be adjusted accordingly. Finally, the Forest will carefully review the adequacy of the existing 1996 Revised Land and Resource Management Plan for the Rio Grande National Forest (Forest Plan) in light of the proposed level of vegetation treatments proposed under the AWRP.

The Goals, Desired Outcomes, and Performance Measures intended to implement the Forest’s 10-year Strategy and the AWRP are presented next.

### **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.*

Performance Measures
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- ~~☐~~ Annual preparedness plans for the San Luis Valley are in place.
- ~~☐~~ Amount of time lost from firefighter injury in proportion to the number of days worked.
- ~~☐~~ Percent of unplanned and unwanted wildland fires controlled during initial attack.

- ~~///~~ Number of structures lost as a result of wildland fire.
- ~~///~~ Average costs per acre for suppression and emergency stabilization are commensurate with fire size and complexity.
- ~~///~~ Number of WUI areas and key watersheds protected from wildland fire.
- ~~///~~ Percent of line officers and fire managers trained to make fire-suppression decisions.
- ~~///~~ Percent of the San Luis Valley population reached through education actions about fire prevention.

## **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.*

### **Performance Measures**

- ~~///~~ Annual acres of fuel treatment in WUI and other high priority areas (and were identified as high priority through collaborative processes).
- ~~///~~ Percent of annual Forest hazardous fuels funding spent on WUI and other high priority areas.
- ~~///~~ Number of acres in condition class (CC) 2 or 3<sup>1</sup> converted to condition class 1 (characterized by WUI, municipal watersheds, threatened, endangered, or sensitive (TES) species habitat, and other areas of critical resource values).
- ~~///~~ Number of acres treated in fire regimes (FR) 1, 2, or 3<sup>1</sup>.
- ~~///~~ Percent of acres maintained in condition class 1.
- ~~///~~ A Fire Management Plan is in place for the Forest.
- ~~///~~ Annual number of wildland fires and acres resulting in significant negative impacts to people, communities, or resources.

## **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*

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<sup>1</sup> Fire Regimes and Condition Classes are defined in Appendix E.

*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.

Performance Measures

- ☞ Number of assessments completed to identify and prioritize critical watersheds, critical habitat, and forest health concerns.
- ☞ Percent of inventoried populations of invasive species treated.
- ☞ Percent of restoration projects using native seed to restore ecosystems.
- ☞ Acres and percent of damaged and at-risk watersheds with completed treatments for stabilization and restoration as prescribed.
- ☞ Miles and percent of travel corridors with corrective action taken (e.g., hazard tree removal, culverts replaced, etc.).
- ☞ Number of affected acres monitored to assess and quantify treatment needs and plans.
- ☞ Percent of priority facilities and infrastructure damaged by fire returned to service.

**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.*

Performance Measures

- ☞ Percent of communities in the San Luis Valley with increased firefighting capability and readiness.
- ☞ Percent of affected communities in the San Luis Valley with prevention and education programs in place, and where FIREWISE (<http://www.firewise.org>) treatments are being applied on the ground.
- ☞ Percent of counties in the San Luis Valley with completed community fire management plans in place.
- ☞ Percentage of mitigation projects developed in collaboration with counties and partner agencies.
- ☞ Number of businesses directly benefiting from the by-product of hazardous fuel treatments and ecosystem restoration activities.
- ☞ Percent of acres where livestock grazing is sustainably reducing fine fuels.

☞ Number of contacts with town governments, county commissioners, volunteer fire departments, tribal governments, and others linked to fire prevention and awareness in the San Luis Valley.

### III. Project Implementation

The Forest is ready to implement AWRP. The Forest has accomplished all of the Secretary of Agriculture's instructions in the discretionary appeal decision. As a result, the Forest is in a position of being able to implement the Forest Plan. Furthermore, the Forest recently completed the Forest Roads Analysis that evaluated the adequacy of the Forest's road system to meet AWRP goals. The Forest has already begun forest health Focused Assessments in order to better define critical watersheds, critical TES habitat, and project actions to meet the intent of the AWRP. One assessment was recently completed for the Conejos Peak Ranger District and similar assessments are planned in FY04 for the Saguache and Divide Ranger Districts. As a result, the Forest is strategically positioned to aggressively implement a variety of forest health restoration projects for the AWRP.

A program of work has been developed for fiscal years 2004 through 2008 to achieve the goals of the AWRP. Brief project descriptions are displayed in Appendix A. Appendix B contains maps, by fiscal year, showing a generalized location of each proposed project relative to other land ownerships on the Rio Grande National Forest. All proposed projects will be developed and implemented consistent with the Forest Plan, administrative policies, and decisions applicable to the federal land covered by the project. The Forest expects to take full advantage of the various tools available to streamline procedural requirements. The Forest will annually review the list of projects and realign priorities and sequencing, if needed, based on national and regional objectives, Forest-level tactical planning, and actively seek to integrate TE wildlife opportunities identified through the Endangered Species Act (ESA) streamlining team. Forest personnel are eager, focused, and ready to implement the AWRP on the Rio Grande National Forest.

Each resource program has reviewed its potential for contributing toward the goals of the AWRP. Furthermore, the Forest has explored the potential synergy of program integration in order to meet the AWRP goals. The following narratives, by resource area, describe each program's tie and commitment to the AWRP.

#### **Fuels Program**

Fuels treatment is a key part of the Forest's long-term ecosystem health and restoration plans. The focus of the Forest's fuels treatment program is consistent with the AWRP emphasis items, and other guidance and direction documents (i.e., the National Fire Plan, the Cohesive Strategy, the Federal Wildland Fire Management Policy, etc). All of the fuels projects listed in Appendix A are either: 1) changing an area in Condition Class 2 or 3/Fire Regime 1, 2, or 3 to help restore fire-adapted ecosystems and reduce the environmental impacts of unplanned and unwanted wildland fire, or 2) reducing the risk of crown fire initiation and spread in a

WUI area, regardless of the Fire Regime. A map showing WUI areas, relative to the Rio Grande National Forest, is presented in Appendix C.

The fuels program is also an integral part of the Forest's interdisciplinary response to the serious insect and disease infestations occurring in most all of our forest types, but particularly the higher elevation spruce/fir zone. The fuels program is addressing the changes in fuel characteristics (loading, arrangement, availability, etc) and associated fire behavior that will evolve as these trees die, and this requires an accelerated, pro-active, interdisciplinary approach.

The Forest's five-year fuels project action plan identifies a significantly accelerated increase in area treated in the first year alone (2004 acreage is more than double that of 2003). The acres of fuels treatments generally continue to increase over the life of the Five-year Action Plan. It should be noted that this increase (from 2005 to 2008) represents the maximum total acreage that can be realistically planned and ready for implementation, barring any unanticipated delays. The Forest acreage totals for any given year (except 2004) indicated in Appendix A represent a mix of project opportunities.

In order to address this major increase in the fuels program, all available "streamlining" or efficiency tools are being evaluated and utilized. There has been extensive use of Categorical Exclusions (CEs) for hazardous fuels, when appropriate, for both mechanical and prescribed fire projects. The Indefinite Delivery Indefinite Quantity (IDIQ) contractor list and web site have also been utilized, and efforts are under way to engage more local contractors in the IDIQ program. A Stewardship Contract has been approved on the Forest, and several future projects have been identified as having potential as Stewardship Contracts. The use of the Wyden Amendment is being utilized in the Del Norte/South Fork area. With President Bush's signing of the Healthy Forests Restoration Act (HFRA) on December 3, 2003, the Chief formed an inter-deputy implementation team to interpret and provide direction to line officers on implementing HFRA in a timely and consistent fashion. As this direction and guidance is received, the Forest will take full advantage of the program and project efficiencies that should be realized.

Collaboration with other Federal and non-Federal agencies in fuels treatment is strong, but particularly so with the Bureau of Land Management (BLM) and Colorado State Forest Service (CSFS). We have an outstanding relationship with BLM through Service First and our Good Neighbor Authority agreement is in place with CSFS. The coordination, sharing of resources, expertise, and/or personnel for fuels projects, particularly those involving WUI, is superb. Cooperation among communities, counties, and tribal governments is excellent.

### **Timber Program**

The Forest's timber program is a vital tool for achieving goals of the AWRP. This program proposes forest health treatments that are integrated with other Forest resources and consistent with the AWRP goals (see Appendix A for a list of proposed projects). Integration of the timber program and other programs, such as the fuels program and the wildlife habitat improvement program, will continue to meet the goals of the AWRP. The primary emphasis

for the Forest's fuels program is on lower elevation conifer forests whereas the timber program generally focuses on the higher elevation spruce/fir forests. The Forest has a strong stewardship responsibility and commitment to managing these forests. The spruce/fir ecosystem is important habitat for the Canada lynx – a threatened species. Presently, the Forest is experiencing an escalating spruce beetle outbreak that will result in tremendous fuel loadings and conditions ultimately ripe for catastrophic wildfires. During the Conejos Peak Focused Assessment, Dr. Tom Eager (entomologist, Gunnison Service Center) predicted that up to 75% of the Forest's Engelmann spruce forest may succumb to spruce beetle in the next 10-15 years if current environmental conditions persist and current high beetle-risk stand conditions remain.

The timber program emphasis is on the treatment of insect and disease infestations while accomplishing other resource improvements such as long-term habitat restoration. These treatments result in forest health improvement by increasing tree vigor, reducing insect populations, reducing fuel loadings, regenerating decadent stands, improving watershed health, and reducing risk of wildland fire.

Forest health restoration will influence the timber program for the foreseeable future due to the serious outbreaks the Forest is experiencing. Focused assessments have identified the need for treatment of stands. The timber program will become increasingly proactive by treating areas most susceptible to future outbreaks. Much of the Forest consists of even-aged, mature stands of Engelmann spruce that are highly susceptible to spruce beetle. There is a desperate need to reduce the risk ratings by reducing basal areas and creating more age class diversity. The Forest considers the health of its dominant spruce/fir ecosystem as a vital stewardship responsibility. These areas have high recreational and scenic values; they are important lynx habitat; and areas with high commercial value timber must be managed. Ultimately, a significant potential catastrophic wildland fire hazard must be contained if these stands continue dying.

The Forest's five-year timber sale action plan identifies an increase in the area treated and volume outputs over the next three years. The outputs will increase from 14,000 CCF/year to 22,000 CCF/year over the next three years. Even though an action plan is in place, the timber program is designed to be responsive to changing priorities and conditions on the ground. The timber program will continue to integrate treatments with other program areas and to treat stands that will contribute toward addressing forest health and the wildland fire and fuels threat identified by the Chief.

### **Wildlife, Fisheries, and Rare Plant Program (WFRP Program)**

The WFRP Program is another key program in integrating resources and contributing to project implementation to accomplish the goals of the AWRP. Emphasis is on the restoration and maintenance of critical habitats over the long term. This program contributes to AWRP in two major ways; through habitat restoration projects designed to improve wildlife, fish, and rare plant habitats, and through technical expertise and knowledge as an integral part of an interdisciplinary assessment to inform decisions about project identification, prioritization, design, analysis, implementation, and monitoring.

The WFRP Program is actively engaged in the acquisition, maintenance, and analysis of species and habitat data, consistent with the Forest's Monitoring Plan, with particular emphasis on Management Indicator Species (MIS) and Threatened, Endangered, Proposed, and Sensitive (TEPS) species. The Forest recently amended the Forest Plan to add MIS and is currently developing the requisite monitoring protocols. The Forest Plan Biological Evaluation (BE) is being updated to incorporate new sensitive species as a result of the recently revised Regional Forester's sensitive species list. FAUNA and other databases, such as for tracking changes to Lynx Analysis Units (LAUs), are being finalized and/or implemented, and will require ongoing maintenance to incorporate new inventory and monitoring data of species and habitats. These data are necessary to provide an informed basis for AWRP project level decision making, as well as to meet the annual reporting requirements of the Forest Plan Monitoring and Evaluation Report, summary report of project effects to lynx, and scientific permit reports.

In addition to projects specifically designed for habitat improvement, the WFRP Program collaborates with other program areas to maximize wildlife, fish, and rare plant habitat benefits of AWRP vegetation treatment projects. The WFRP Program focus is to participate in the interdisciplinary assessment to identify and prioritize Forest needs consistent with the AWRP emphasis items, and to cooperate in the design, analysis, implementation, and monitoring of specific projects. Opportunities for wildlife, fish, and rare plant habitat improvements, such as stream renovations, water developments, road closures and habitat enclosures will be undertaken in conjunction with vegetation treatments intended to address AWRP objectives. Specifically, the WFRP Program will focus on two types of habitat improvement work; to improve habitat conditions specifically for the benefit of wildlife, fish, and rare plants, and to augment species benefits of vegetation treatments undertaken by fuels, timber, range and other projects.

Appendix A outlines projects that the WFRP Program will either initiate or collaborate with other programs to achieve the AWRP emphasis to improve condition class of specific fire regime vegetation communities. There is additional WFRP Program work not articulated in Appendix A that supports and/or augments the described vegetation treatments. There are two things common to all projects identified in Appendix A; the ongoing need to inventory and monitor wildlife, fish, and rare plant populations and habitats, and maintain the related databases, with an emphasis on MIS and TEPS species; and to conduct augmentation and/or mitigation treatments as appropriate, in conjunction with AWRP projects.

Specific work that needs to be accomplished in the WFRP Program to provide the technical expertise and knowledge necessary for Forest-level assessments and project-level analyses includes:

- Updating the Forest Plan BE for new sensitive species.
- Completing the development of MIS monitoring protocols.
- Implementing MIS and TEPS monitoring plans, inclusive of MIS/TEPS habitat mapping.

- Establishing a Regional internet-based LAU database with ongoing data maintenance as a basis for reporting to the US Fish and Wildlife Service (FWS).
- Finalizing FAUNA installation and data migration/entry with ongoing data maintenance as a basis for Forest and project-level analyses.
- Conducting a Forest-wide culvert inventory as a basis for management plan development and implementation, in conjunction with the Engineering Program.
- Developing lynx linkage area management plans in coordination with adjoining Forests and FWS.
- Collaborating with FWS on species listings and critical habitat designations.

### **Range Program**

The Range Program is a key component in achieving AWRP goals. It is a significant vegetation treatment program on the Forest. With approximately 90,000 Animal Unit Months of permitted livestock use on the Forest, in a combination of sheep and cattle grazing, the fine fuel component is extensively affected. This annual permitted treatment of grassland and forb communities helps reduce fire-ignition potential as well as fire-spread potential.

Close coordination and integration takes place between the Fuels and the Range Program. Pasture rotations during the season before or current year can be adjusted to accommodate planned prescribed fire to allow adequate residual grass and forb species to help carry fire. Conversely, pastures may need to be rested after prescribed fire has taken place.

Rangeland health is affected by prescribed fire. With fire, succession is setback on plants, often times making them more palatable to domestic livestock as well as wildlife. Increased plant vigor may result and some studies indicate a short-term flush of protein content may result from fire with proper timing. Therefore, a secondary benefit from fuels prescribed burning may be range forage improvement. Thus, both livestock and wildlife benefit from improved ecosystem health. Range management will be integrated with wildlife habitat, watershed, and fuels treatments to maximize benefits to ecosystem health.

Another component of the Range Program, when dealing with watershed restoration, is treatment of noxious weeds. The fuels program is responsible for noxious weed treatment in the year of the project. Beyond the project implementation year, the Range Program is responsible. It is expected that residual noxious weed concerns may be greater than current year concerns. Close coordination between the Range, Fuels, and other resource programs will ensure that proper noxious weed spread will be assessed and mitigated.

### **Watershed Program**

The Watershed Program is another key component of the AWRP. Watershed restoration and improvements will be included in AWRP and integrated with other resource projects. This program will include activities to mitigate existing resource concerns or those created during the fuels, timber, or other vegetation management actions.

The most significant watershed health issues on the Forest are related to abandoned mines. Three watersheds on the Forest have been so impacted by past mining that stream health is impaired to the point that aquatic life has been diminished or no longer exists. Under the AWRP, these areas remain a high priority for ecosystem restoration.

Watershed treatments are intended to increase soil health and to improve or restore critical watershed functions. With a fuels reduction program, the impacts from treatments can vary greatly depending on the treatment chosen for a landscape. Light applications of prescribed fire may have few impacts to watersheds while intensive fuels management practices, such as mechanical thinning, may have greater impact.

The Forest typically plans to annually treat about 200 acres. The Forest Plan directs the Forest to focus work on a watershed basis and make those investments and improvements on a priority list. The Forest has integrated watershed priorities with the Fuels, Timber, and WFRP Program treatment priorities to better define areas of focus in order to meet the goals of the AWRP.

The Forest will focus on two types of watershed restoration and improvement work; one is to address sedimentation concerns due to existing road drainage issues, and second is to mitigate impacts to watersheds as a result of implementing fuels, timber, or wildlife vegetation treatment projects. The Forest focus will spread fuels projects over multiple watersheds while watershed restoration monies will be channeled to individual watersheds. For example, road improvements often require the use of heavy equipment, which have a very high unit cost to implement. Consequently, the Forest cannot complete watershed restoration work for every fuels project. However, the Forest will efficiently use available funding to treat priority watersheds.

Watershed priorities have been established by the Forest through assessments and the Roads Analysis. It is important to point out that watershed work is generally planned to lag behind the vegetation treatments by one year. A proposed project implementation sequence plan is provided in Appendix D that is integrated and coordinated with other Forest resource programs to meet the goals of the AWRP.

### **Recreation Program**

The Forest's Recreation Program is incorporating AWRP goals in the developed recreation program and is using the reference, "Vegetation Management Planning Guide: Planning and Implementation for Developed Sites in Region 2 (Jan./2003)." The Forest is emphasizing strategic treatments in landscapes with high risk to forest health and wildfire, and improving tree vigor. A secondary benefit to the Forest's dispersed recreation program (i.e., scenic byways and dispersed recreation travel corridors) will be accomplished in conjunction with the numerous vegetation treatments planned to accomplish AWRP goals.

Vegetation treatments on the Forest have been strategically planned to conduct restoration in landscapes with high risk, improve watersheds, and increase tree vigor. Those treatments will provide a secondary benefit to the Forest's dispersed recreation program since they will be

situated within or adjacent to scenic byways and/or dispersed recreation travel corridors and near motorized and non-motorized trail corridors that require restoration.

Improving the health and vigor of forest stands over a variety of landscapes and elevations and reducing fire risk directly enhances the aesthetics and visitor's experience (variety of recreational opportunities) in these landscapes. Our Forest visitor experiences are associated with driving for pleasure (scenic byways – enhances the foreground and middle ground setting); viewing scenery or wildlife (along Forest roads in dispersed recreation travel corridors); and hiking or taking a motorcycle ride on Forest system trails, or going out for a picnic. All of these activities rely on healthy, resilient ecosystems.

A proposed project implementation sequence plan is provided in Appendix D that is integrated and coordinated with other Forest resource programs to meet the goals of the AWRP.

### **Scenic Resource Program**

The Scenic Resource Program will be integrated into the AWRP. Scenic quality is closely tied to forest health. There are 19 areas identified in the Forest Plan for Scenic Rehabilitation in conjunction with the AWRP. Each of these areas has been identified in order of priority based on fuels, timber, wildlife, and watershed strategic planning. Scenic resource evaluations will be included in all AWRP projects. Rehabilitation is normally triggered when existing vegetation alterations or the cumulative effects of vegetation alterations over time do not meet Scenic Integrity Objectives. A proposed project implementation sequence plan is provided in Appendix D that is integrated and coordinated with other Forest resource programs to meet the goals of the AWRP.

### **Forest Plan, National Environmental Policy Act (NEPA), and Assessments**

The Forest Plan is the key planning tool needed to achieve the goals of AWRP. Successful and efficient National Environmental Policy Act (NEPA) planning will insure that AWRP projects will be implemented. Project planning will be the crucial point to integrate the forest resource management to achieve AWRP goals.

Generally, the Forest Plan supports the goals of the AWRP, and it will be an important vehicle to help accomplish the AWRP. Monitoring requirements in the Forest Plan and the performance measures in this Five-year Action Plan will be important to assess the success of AWRP. More than half of the Forest is in non-development management-area prescriptions. A few management-area prescriptions, notably the Backcountry Prescription, may currently hinder achievement of some AWRP objectives. This needs to be assessed and possibly modified due to restrictions on vegetation management. At the time the Forest Plan Record of Decision (ROD) was signed, it was thought that perpetuating natural processes would be the best way to manage Backcountry Prescription. That concept was favored before the current extended drought and resulting large insect infestation became so detrimental to forest health. The very core values of Backcountry Prescription are now at risk from catastrophic forest health decline with a corresponding high potential for devastating wildfires.

Although, we know that drought and insect cycles periodically occur, the Forest did not expect to experience a severe decline in forest health over the 10-15 year planning period. The original work by the Forest on the Historic Range of Variability (HRV) documented periodic drought and insect cycles. However, we did not predict this cycle occurring to the magnitude recently predicted by Dr. Tom Eager. Consequently, some predictions made in the Final Environmental Impact Statement (FEIS) for the Forest Plan may need to be re-examined. For example, the “S” tables in the Final Environmental Impact Statement (FEIS) for the Forest Plan predict outputs expected from the Forest over the 10-15 year planning period. Predictions made in these tables may need to be assessed and adjusted in order to fully meet the goals of the AWRP.

The Forest plans to complete Focused Assessments for each ranger district in order to better define critical watersheds, critical TES habitat, and critical restoration needs to meet the AWRP.

### **Minerals Program**

The primary focus of the Forest Minerals Program in the AWRP is to contribute to watershed health and function by improving watershed condition on those areas critically in need of restoration due to historic mining activity. A proposed project implementation sequence plan is provided in Appendix D that is integrated and coordinated with other Forest resource programs to meet the goals of the AWRP.

## **IV. Local Issues and Support**

The San Luis Valley (SLV) is in many ways a closed economic system. Road access is complicated due to the need to travel over major passes in all directions to access the SLV. Air travel is limited to one commercial airport in Alamosa with limited connecting flights. High unemployment and an overall depressed economy currently exist. These factors can be viewed as opportunities as AWRP projects come about because new markets may be developed. Existing lack of a biomass utilization infrastructure limits the Forest’s ability to address this aspect of vegetation removal. Perhaps this industry can be developed. Efforts are ongoing to educate and assist local business development in this program. Recent sawmill closures (US Forest Industries, Rio Grande Forest Products) limit the Forest’s ability to market large timber. It is possible that with a sustainable program and products being generated that sawmill closures will halt and revitalization of closed mills may take place. Contractor availability for mechanical treatment projects are currently limited, however, this situation is slowly improving.

Although smoke levels throughout the State of Colorado can be an issue from the aspect of air quality, it is a relatively small concern for residents of the SLV. The SLV is a large agricultural area where burning is routine and smoke is a familiar sight for residents. Through their familiarization with agricultural burns and a strong Environmental Education and Public Affairs Program on the Forest, citizens are well informed of the benefits of prescribed fire.

Additionally, the Forest Fire/Fuels Program proposes a mixture of mechanical treatments and prescribed fire treatments, thereby reducing the incident of smoke issues.

Currently, there is limited local opposition to timber harvesting. The Forest plans to continue emphasizing the need for vegetation treatments to improve forest health. Recreational opportunities on the Forest are a major contributor to the economies of the local communities. Following the Million Fire, there is an increased sensitivity to the effects of a catastrophic fire on the communities. Collaborative planning with the affected communities will provide the opportunity to improve awareness of and obtain support for proposed projects intended to reduce the fire risks and improve forest health. This, coupled with the new tools available through recent legislation and a well-informed public, should lessen the opposition to enhancing forest health through strong Fire/Fuels and Timber Programs.

Our current Backcountry Management-area Prescription in the Forest Plan may require review since timber harvest is prohibited. This could hamper the Forest's ability to improve forest health over a large portion of the Forest.

## **V. Accountability**

The AWRP will continue to receive high priority on the Rio Grande National Forest until such time that national and regional priorities dictate otherwise. As stated previously, this Five-year Action Plan provides a framework for measuring progress toward achieving the Forest's 10-year Strategy. Accountability is critical to success.

The Forest's interdisciplinary team will meet quarterly to discuss the progress being made on the Five-year Action Plan. The performance measures listed above in Section II for each Goal are intended to help the Forest track how well it is progressing toward meeting desired outcomes. The interdisciplinary team will keep Forest Leadership apprised of progress being made on the Forest and the San Luis Valley. The Forest's Leadership will periodically evaluate performance measure trends and decide if the goals and desired outcomes are being met at an acceptable rate of progress. Also, the results of assessments and monitoring will be made available to Forest Leadership. Based on the results of this review process, the Five-year Action Plan may be revised and projects sequenced differently in order to best meet the goals of the AWRP.

## **VI. Assistance Needed**

As the Forest accelerates the fuels program and fully implements AWRP, it is very likely additional Washington Office (WO) and Regional Office (RO) support will be required. Examples include assistance with appeals and litigation, project planning assistance (service trips) and funding issues (e.g., relationship to Primary Purpose, tie to Budget Formulation and Execution System (BFES), etc.). We anticipate needing continued assistance from the Gunnison Service Center to help assess and make recommendations on the Forest's insect and disease conditions. RO assistance and guidance will be required for implementation of the alternative approach for streamlining section 7 consultations with FWS on hazardous fuels

treatment projects. Training for new rules, authorities, and tools may be needed and that may help provide consistent application across the Region. We may request RO assistance to help assess our Forest Plan for compatibility with the new proposed fuels treatment program.

Finally, enhanced coordination and input will need to take place with the States of Colorado and New Mexico as well as other SLV Federal, State, and local agencies. Increased coordination and communication is necessary to implement Fire Program Analysis (FPA).

**APPENDIX A. Proposed AWRP Project Schedule FY04 – FY08.**

The proposed AWRP projects for fiscal years 2004 through 2008 are presented in Table A-1 below. A summary of projected outputs, by fiscal year, is provided in Table A-2.

Opportunities to integrate resource programs have been capitalized on where it is feasible and known at this time. Projects proposed outside Fire Regimes 1, 2, or 3 generally reflect basic forest health needs and meet the AWRP emphasis of improving tree and shrub vigor and improving watershed health – especially where there are insect and disease concerns. The Forest intends to annually assess the proposed workload below and realign priorities and project sequencing as needed. The Forest will also annually evaluate the personnel skills needed in order to accomplish this proposed work in an efficient manner. Finally, the Forest will continue to evaluate how best to accomplish the AWRP emphasis; how best to gain efficiencies in project planning and implementation; and seek additional partnership opportunities. The Forest set initial priorities for each project in Table A-1 based on AWRP emphasis. Projects treating Wildland Urban Interface (WUI) and/or Fire Regime (FR) 1, 2, or 3 in Condition Class (CC) 2 or 3 were deemed higher priority than other projects. Font color was used in the Budget Line Item (BLI)/Output column to help the Forest keep track of program outputs (i.e., Fuels Program <black font>, Timber Program <red font>, Wildlife Program <blue font>, and the Range Program <green font>).

**Table A-1. Proposed AWRP Projects by Fiscal Year.**

<b>Project Name &amp; Ranger District</b>	<b>Purpose and Need</b>	<b>BLI/Output (MX = mechanical RX = prescribed fire)</b>	<b>Partners<sup>1</sup></b>	<b>Forest Priority</b>	<b>Critical Paths</b>
<b>FY 2004</b>					
Wolf Mountain DIV RD (Divide Ranger District)	Natural fuels: reduce fire risk in FR 1,3 CC 2	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 1000 ac NFVW 100ac	RMEF, CDOW, MDF, NWTF, BLM	High	
Schrader Creek DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 125 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFVW 100ac	CDOW	High	
Schrader Creek DIV RD	Mahogany plantings: improve big game winter range	<u>Primary</u> - NFWF 20 ac WUI		Low	NEPA compliance <sup>2</sup>

<sup>1</sup> Rocky Mountain Elk Foundation (RMEF); Colorado Division of Wildlife (CDOW); US Fish and Wildlife Service (FWS); National Wild Turkey Federation (NWTF); Mule Deer Foundation (MDF); and Bureau of Land Management (BLM). “Partnership Potential” means there are known partners that will be solicited, but their participation has not yet been secured.

<sup>2</sup> NEPA Compliance in this context here broadly refers to the need to complete all project planning work (scoping, documentation, decision documents, etc.), consultation issues with USFWS, tribal government collaboration, and any clearances (such as SHPO, Sensitive Species BA/BE work for plants and wildlife).

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
Embargo Creek DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 200 ac WUI MX <u>Secondary</u> - NFWF 200 ac NFVW 200 ac	Partnership potential	High	
Alpine DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 200 ac WUI MX <u>Secondary</u> - NFWF 200 ac NFVW 200ac		High	
Cathedral Peak DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 450 ac non- WUI MX/RX <u>Secondary</u> - NFWF 500 ac NFVW 150 ac		High	
Park Cr Units 1-4 SAG RD (Saguache Ranger District)	Activity & Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 2,110 ac non- WUI RX <u>Secondary</u> -NFTM 210 CCF NFVW 1800 ac		High	Contingent upon harvest of timber.
Buffalo Pass Units 1-3 SAG RD	Activity & Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 625 ac non- WUI RX <u>Secondary</u> -NFTM 260 CCF		High	NEPA compliance Contingent upon sale and harvest of timber.
Antelope Units 1-7 SAG RD	Activity & Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 700 ac non- WUI MX/RX <u>Secondary</u> -NFTM 160 CCF NFVW 400 ac	BLM	High	Contingent upon award and completion of contract.
Mill Creek SAG RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 270 ac non- WUI MX/RX <u>Secondary</u> -NFVW 270 ac		Medium	
Spanish Creek SAG RD	Lodgepole treatments in FR 4, CC 2 to improve TE habitat	<u>Primary</u> - NFWF 80 ac non-WUI MX <u>Secondary</u> - NFTM 100 CCF NFVW 25 ac	Partnership potential	Medium	NEPA compliance
Middle Carnero SAG RD	Willow plantings to improve riparian habitat	<u>Primary</u> - NFWF 25 ac	Partnership potential	Low	NEPA compliance
Saguache aspen regen. SAG RD	Aspen treatments in FR 3,4 CC 1to improve TES/MIS habitats	<u>Primary</u> - NFWF 80 ac non-WUI MX <u>Secondary</u> -NFTM 50 CCF (fuelwood) NFVW 40 ac	Partnership potential	Low	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
Rito Hondo CON RD (Conejos Peak Ranger District)	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary</u> - WFHF 200 ac non-WUI MX/RX <u>Secondary</u> - NFWF 200 ac		High	
Cold Springs CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary</u> - WFHF 500 ac WUI MX/RX <u>Secondary</u> - NFWF 500 ac NFVW 500 ac		High	
Shilling Springs CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary</u> - WFHF 800 ac non-WUI MX/RX <u>Secondary</u> - NFWF 800 ac NFVW 800 ac		High	
Jacobs Hill CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary</u> - WFHF 950 ac WUI MX/RX <u>Secondary</u> - NFWF 200 ac NFVW 950 ac		High	
Million Fire Salvage DIV RD	Salvage of fire-killed timber in FR 3, CC1	<u>Primary</u> -NFTM 5,000 CCF		Medium	NEPA compliance
Marbel Timber Sale DIV RD	Uneven-aged management of spruce stand in FR 5, CC 1	<u>Primary</u> -NFTM 2,000 CCF		Medium	
County Line Salvage 1 CON RD	Salvage of spruce trees killed by spruce beetle in FR 5, CC 1	<u>Primary</u> -NFTM/SPFH 2,200 CCF <u>Secondary</u> -WFHF 800ac.		High	NEPA compliance
<b>FY 2005</b>					
Embargo DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 200 ac WUI MX/RX <u>Secondary</u> - NFWF 200 ac NFVW 200 ac	Partnership potential	High	
Bear Creek DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFVW 400 ac	Partnership potential	High	NEPA compliance
Alder Creek DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFVW 450 ac	Partnership potential	High	NEPA compliance
Cathedral Peak DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 500 ac non-WUI MX/RX		High	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
		<u>Secondary</u> - NFWF 500 ac			
Wolf Mountain Private Land Demo Project DIV RD	Big game winter range habitat improvement in FR 1,3 CC 2	<u>Primary</u> - NFWF 500 ac <u>Secondary</u> - WFHF 500 ac non-WUI MX	Wyden Amendment potential	Medium	NEPA compliance
Schrader Creek DIV RD	Natural fuels: reduce fire risk in FR 1,3 CC 2,3	<u>Primary</u> - WFHF 125 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFVW 125	CDOW	High	
Schrader Creek DIV RD	Mahogany plantings: improve big game winter range	<u>Primary</u> - NFWF 20 ac WUI		Low	NEPA compliance
Houselog Units 10-14,17 SAG RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 4,500 ac non-WUI RX <u>Secondary</u> -NFVW 2500 ac		High	NEPA compliance
Saguache aspen regen. SAG RD	Aspen treatments in FR 3,4 CC 1 to improve TES/MIS habitats	<u>Primary</u> - NFWF 80 ac non-WUI MX <u>Secondary</u> - NFTM 50 CCF (fuelwood) NFVW 50 ac	Partnership potential	Low	NEPA compliance
Middle Carnero SAG RD	Willow plantings: improve riparian habitat	<u>Primary</u> - NFWF 25 ac non-WUI	Partnership potential	Low	NEPA compliance
Sheep Creek SAG RD	Lodgepole treatments in FR 4, CC 2 to improve TE habitat	<u>Primary</u> - NFWF 120 ac non-WUI MX	Partnership potential	Medium	NEPA compliance
Shilling Springs CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary</u> - WFHF 1,600 ac non-WUI MX/RX <u>Secondary</u> - NFWF 1600 ac NFVW 1600 ac		High	NEPA compliance
East Hot Cr/Piedrosa CON RD	Natural fuels: reduce fire risk in FR 1, CC 2,3	<u>Primary</u> - WFHF 870 ac non-WUI RX <u>Secondary</u> - NFWF 870 ac NFVW 200 ac		High	NEPA compliance RNA plan needed
Posito CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary</u> - WFHF 1,670 ac non-WUI RX <u>Secondary</u> - NFWF 1670 ac NFVW 1670 ac		High	NEPA compliance
Conejos Canyon CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 200 ac WUI MX <u>Secondary</u> - NFWF 200 ac		High	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
Poage Timber Sale DIV RD	Uneven aged management of spruce in FR 5, CC 1	<u>Primary-NFTM</u> 6,000 CCF		Medium	NEPA compliance
Long West Park Timber Sale SAG RD	Uneven aged management of spruce and mixed conifer in FR 4, CC 1	<u>Primary-NFTM</u> 4,890 CCF		Medium	
County Line Timber Sale 2 CON RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary-NFTM</u> 2,200 CCF		High	NEPA compliance
<b>FY 2006</b>					
Palisade DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 500 ac		High	NEPA compliance
Sentinel Mtn. DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFVW 100 ac		High	NEPA compliance
Pinos Creek DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 750 ac WUI MX <u>Secondary</u> - NFWF 750 ac NFVW 325 ac		High	NEPA compliance
Cathedral Pk DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 3	<u>Primary</u> - WFHF 500 ac non-WUI MX/RX <u>Secondary</u> - NFWF 500 ac NFVW 150		High	NEPA compliance
Houselog Unit 16 SAG RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 2,900 ac non-WUI RX NFVW 1500 ac		High	NEPA compliance
Sheep Creek SAG RD	Natural fuels: reduce fire risk in FR 3, CC 3	<u>Primary</u> - WFHF 1,000 ac non-WUI RX <u>Secondary</u> - NFWF 120 ac NFVW 500 ac	RMEF	High	NEPA compliance
Bonanza Stewardship SAG RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX NFTM 500 CCF	BLM, CSFS, Saguache County	High	NEPA compliance Review for suitability as a stewardship contract.
Saguache aspen regen.	Aspen treatments in FR	<u>Primary</u> - NFWF 80 ac non-WUI	Partnership	Low	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
SAG RD	3,4 CC 1 to improve TES/MIS habitats	<u>MX</u> <u>NFTM 50CCF (fuelwood)</u> <u>Secondary- NFVW 80 ac</u>	potential		
Middle Carnero SAG RD	Willow plantings to improve riparian habitat	<u>Primary- NFWF 25 ac non-WUI</u>	Partnership potential	Low	NEPA compliance
Sheep Creek SAG RD	Lodgepole treatments in FR 4, CC 2 to improve TE habitat	<u>Primary- NFWF 120 ac non-WUI MX</u>	Partnership potential	Medium	NEPA compliance
Poso CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary- WFHF 590 ac non-WUI RX</u> <u>Secondary- NFWF 590 ac</u> <u>NFVW 590 ac</u>		High	NEPA compliance
West Hot Cr/Piedrosa CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary- WFHF 590 ac non-WUI RX</u> <u>Secondary- NFWF 100 ac</u> <u>NFVW 100 ac</u>		High	NEPA compliance RNA plan needed
Cabin Creek CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary- WFHF 130 ac non-WUI RX</u> <u>Secondary- NFWF 130 ac</u> <u>NFVW 130 ac</u>		High	NEPA compliance
Junction CON RD	Natural fuels: reduce fire risk in FR 1, CC 2	<u>Primary- WFHF 360 ac non-WUI RX</u> <u>Secondary- NFWF 360 ac</u> <u>NFVW 360 ac</u>		High	NEPA compliance
Conejos Canyon CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary- WFHF 200 ac WUI MX</u> <u>Secondary- NFWF 200 ac</u>		High	NEPA compliance
Conejos/Alamosa Canyon CON RD	Wildlife habitat improvement. Aspen regen in FR 1,3 / CC 2,3	<u>Primary- NFWF 200 ac WUI MX</u> <u>Secondary- NFTM 50 CCF</u>		Medium	NEPA compliance
Thunder Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary-NFTM 5,000 CCF</u>		Medium	NEPA compliance
Cross Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary-NFTM 2,000 CCF</u>		Medium	NEPA compliance
Ford/Five Mile Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary-NFTM 2,000 CCF</u>		Medium	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
Pond Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	Primary-NFTM 968 CCF		Medium	NEPA compliance
Black Mountain Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	Primary-NFTM 3,000 CCF		Medium	NEPA compliance
North Calesa Dome Timber Sale SAG RD	Harvest of ponderosa pine and mixed conifer timber in FR 1 and CC 2 & 3.	Primary-NFTM 1,600 CCF Secondary-NFVW 80 ac		High	NEPA compliance
Spanish Divide Timber Sale SAG RD	Harvest of lodgepole pine and mixed conifer trees in FR 1 and 3, and CC 2 & 3.	Primary-NFTM 600 CCF Secondary-NFVW 20 ac		High	NEPA compliance
Bear Timber Sale SAG RD	Harvest of green ponderosa pine and mixed conifer trees in FR 1 & 3, CC 2 & 3.	Primary-NFTM 600 CCF Secondary-NFVW 20 ac		High	NEPA compliance
Spring Gulch Timber Sale SAG RD	Harvest of green ponderosa pine and mixed conifer trees in FR 1 & 3, CC 2 & 3.	Primary-NFTM 3,000 CCF Secondary-NFVW 100 ac		High	NEPA compliance
Fullerton Timber Sale SAG RD	Harvest of green aspen trees in FR 4, CC 2.	Primary-NFTM 800 CCF Secondary-NFVW 25 ac		Medium	NEPA compliance
Cocomongo Timber Sale SAG RD	Harvest of green lodgepole pine and spruce trees in FR 1 & 4, CC 2 & 3.	Primary-NFTM 2,000 CCF Secondary-NFVW 50 ac		Medium	NEPA compliance
Kerr Lake Timber Sale CON RD	Harvest of green spruce trees in FR 5, CC 1	Primary-NFTM 1,500 CCF		Medium	NEPA compliance
<b>FY 2007</b>					
Sentinel Mtn. DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 750 ac WUI MX Secondary- NFWF 750 ac NFVW 200 ac		High	NEPA compliance
San Francisco Pk. DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 1,000 ac WUI MX Secondary- NFWF 1000 ac		High	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
Spar City DIV RD	Natural fuels: reduce fire risk in FR 4 / CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFTM 500 CCF		High	ESA -- lynx consultation  Review for suitability as a stewardship contract.
Grouse Mtn DIV RD	Natural fuels: reduce fire risk in FR 3,4 / CC 2,3	<u>Primary</u> - WFHF 1,000 ac WUI MX <u>Secondary</u> - NFWF 1000 ac NFVW 100 ac NFTM 1000 CCF		High	ESA -- lynx consultation.  Review for suitability as a stewardship contract.
Houselog Units 15,18 SAG RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 3,400 ac non- WUI RX <u>Secondary</u> -NFVW 1500 ac		High	NEPA compliance
East Sheep Cr Unit 1 SAG RD	Natural fuels: reduce fire risk in FR 3 / CC 2,3	<u>Primary</u> - WFHF 1,000 ac non- WUI RX <u>Secondary</u> - NFWF 120 ac NFVW 800 ac		High	NEPA compliance
Bonanza Stewardship SAG RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 100 ac WUI MX <u>Secondary</u> - NFTM 750 CCF	BLM, CSFS, Saguache County	High	Review for suitability as a stewardship contract.
Saguache aspen regen. SAG RD	Aspen treatments in FR 3,4 CC 1 to improve TES/MIS habitats	<u>Primary</u> - NFWF 80 ac non-WUI MX <u>Secondary</u> - NFTM 50CCF (fuelwood) NFVW 40 ac	Partnership potential	Low	NEPA compliance
Middle Carnero SAG RD	Willow plantings to improve riparian habitat	<u>Primary</u> - NFWF 25 ac non-WUI	Partnership potential	Low	NEPA compliance
Sheep Creek SAG RD	Lodgepole treatments in FR 4, CC 2 to improve TE habitat	<u>Primary</u> - NFWF 120 ac non- WUI MX <u>Secondary</u> -NFVW 50 ac	Partnership potential	Medium	NEPA compliance
Piedrosa CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 1,630 ac non- WUI RX <u>Secondary</u> - NFWF 1630 ac NFVW 1630 ac		High	NEPA compliance  RNA plan needed
Hot Creek CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 2,460 ac non- WUI MX/RX <u>Secondary</u> - NFWF 2460 ac NFVW 100 ac		High	NEPA compliance  RNA plan needed

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
Conejos/Alamosa Canyon CON RD	Wildlife habitat improvement. Aspen regen in FR 1,3 / CC 2,3	<u>Primary</u> - NFWF 200 ac WUI MX <u>Secondary</u> - NFTM 50 CCF		Medium	NEPA compliance
Fox Mountain Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> -NFTM 3,000 CCF		Medium	NEPA compliance
Pool Table Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> -NFTM 2,000 CCF		Medium	NEPA compliance
Ivy Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> -NFTM 2,000 CCF		Medium	NEPA compliance
Browns Timber Sale SAG RD	Harvest of green ponderosa pine and mixed conifer trees in FR 1 & 3, CC 2 & 3.	<u>Primary</u> -NFTM 2,000 CCF <u>Secondary</u> -NFVW 80 ac		High	NEPA compliance
California Timber Sale SAG RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> -NFTM 2,500 CCF <u>Secondary</u> -NFVW 80 ac		Medium	NEPA compliance
Whiskey Timber Sale CON RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> -NFTM 4,000 CCF		Medium	NEPA compliance
Lake Fork Timber Sale CON RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> -NFTM 5,000 CCF		Medium	NEPA compliance
Conejos Canyon CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 200 ac WUI MX <u>Secondary</u> - NFWF 200 ac		High	NEPA compliance
<b>FY 2008</b>					
Creede DIV RD	Natural fuels: reduce fire risk in FR 3,4 / CC 2,3	<u>Primary</u> - WFHF 500 ac WUI MX <u>Secondary</u> - NFWF 500 ac NFTM 250 CCF		High	NEPA compliance  Review for suitability as a stewardship contract.
Old Woman Cr DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 1,000 ac WUI MX/RX <u>Secondary</u> - NFWF 1000 ac NFVW 1000 ac		High	NEPA compliance
Rio Grande Corridor DIV RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	<u>Primary</u> - WFHF 1,000 ac WUI MX/RX <u>Secondary</u> - NFWF 1000 ac		High	NEPA compliance
Houselog Units 1-3,5	Natural fuels: reduce fire	<u>Primary</u> - WFHF 3,080 ac non-		High	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
SAG RD	risk in FR 1,3 / CC 2,3	WUI RX Secondary- <u>NFVW 1500 ac</u>			
East Sheep Cr Unit 2 SAG RD	Natural fuels: reduce fire risk in FR 3 / CC 2,3	Primary- WFHF 1,000 ac non-WUI RX/MX Secondary- NFWF 120 ac NFVW 100 ac		High	NEPA compliance
Bonanza Stewardship SAG RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 100 ac WUI MX Secondary-NFTM 250 CCF	BLM, CSFS, Saguache County	High	Review for suitability as a stewardship contract.
Saguache aspen regen. SAG RD	Aspen treatments in FR 3,4 CC 1 to improve TES/MIS habitats	Primary- <u>NFWF 80 ac non-WUI MX</u> Secondary- <u>NFTM 50 CCF (fuelwood)</u> <u>NFVW 50 ac</u>	Partnership potential	Low	NEPA compliance
Middle Carnero SAG RD	Willow plantings to improve riparian habitat	Primary- <u>NFWF 25 ac non-WUI</u>	Partnership potential	Low	NEPA compliance
Sheep Creek SAG RD	Lodgepole treatments in FR 4, CC 2 to improve TE habitat	Primary- <u>NFWF 120 ac non-WUI MX</u> Secondary- <u>NFVW 40 ac</u>	Partnership potential	Medium	NEPA compliance
Conejos Canyon CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 200 ac WUI MX Secondary- NFWF 200 ac		High	NEPA compliance
November CON RD	Natural & activity fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 930 ac non-WUI RX/MX Secondary- NFWF 930 ac NFTM 4,015 CCF		High	Contingent upon harvesting sale.
Draper Park CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 160 ac non-WUI RX Secondary- NFWF 160 ac NFVW 160 ac		High	NEPA compliance
Long Park CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 3,080 ac non-WUI RX Secondary- NFWF 664 ac NFVW 600 ac		High	NEPA compliance
Airplane Park CON RD	Natural fuels: reduce fire risk in FR 1,3 / CC 2,3	Primary- WFHF 530 ac non-WUI RX Secondary- NFWF 530 ac NFVW 530 ac		High	NEPA compliance
Conejos/Alamosa Canyon	Wildlife habitat improvement.	Primary- <u>NFWF 200 ac WUI MX</u>		Medium	NEPA compliance

Project Name & Ranger District	Purpose and Need	BLI/Output (MX = mechanical RX = prescribed fire)	Partners <sup>1</sup>	Forest Priority	Critical Paths
CON RD	Aspen regen in FR 1,3 / CC 2,3	<u>Secondary</u> - <b>NFTM 50 CCF</b>			
Trout Mountain Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> - <b>NFTM 2,000 CCF</b>		Medium	NEPA compliance
South Shaw Divide Timber Sale DIV RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> - <b>NFTM 958 CCF</b>		Medium	NEPA compliance
Spruce/Lake Mountain Timber Sale SAG RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> - <b>NFTM 3,000 CCF</b>		Medium	NEPA compliance
Round Mountain Timber Sale SAG RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> - <b>NFTM 1,000 CCF</b>		Medium	NEPA compliance
Red Mountain Re-entry CON RD	Harvest of green spruce trees in FR 5, CC 1	<u>Primary</u> - <b>NFTM 8,000 CCF</b>		Medium	NEPA compliance
Cathedral Timber Sale DIV RD	Harvest of green ponderosa pine and mixed conifer trees in FR 1 & 3, CC 2 & 3.	<u>Primary</u> - <b>NFTM 4,000 CCF</b> <u>Secondary</u> - <b>WFHF 500 acres</b> <b>NFVW 250 ac</b>		High	NEPA compliance

Table A-2 provides a summary, by fiscal year, of the projected outputs shown in Table A-1 above. The Forest has significantly accelerated its planned fuels treatment acreage in 2004 (2004 acreage is more than double that of 2003). The acres of fuels treatments generally continue to increase over the life of the Five-year Action Plan. It is important to note that projected acreages below represent the maximum total acreage that could be planned and ready for implementation, barring any unanticipated delays. However, the Forest fully intends to commit the resources necessary in order to accomplish this proposed plan of work. This 5-Year Plan incorporates a mix of mechanical treatment and prescribed fire that is expected to help meet planned accomplishment.

**Table A-2. Summary of Projected Outputs, by Fiscal Year (red font shows primary outputs and blue font shows secondary outputs).**

Fiscal Year	OUTPUTS					
	Primary Outputs					Secondary Outputs
	WUI	Non-WUI	FR 1,2,3 / CC 2,3	Other FR/CCs	Total Outputs	Total Outputs
FY04 (acres)	2,495	5,340	7,630	205	7,835	10,435
FY04 (CCF)	0	9,200	5,000	4,200	9,200	780
FY05 (acres)	2,045	9,365	11,165	245	11,410	14,185
FY05 (CCF)	0	13,090	0	13,090	13,090	50
FY06 (acres)	2,650	6,295	8,720	225	8,945	7,880
FY06 (CCF)	0	23,068	5,800	17,268	23,068	600
FY07 (acres)	3,750	8,655	11,680	725	12,405	12,180
FY07 (CCF)	0	20,500	0	20,500	20,500	2,300
FY08 (acres)	3,000	9,005	11,680	325	12,005	9,834
FY08 (CCF)	0	18,958	4,000	14,958	18,958	4,615
<b>GRAND TOTAL (acres)</b>	<b>13,940</b>	<b>38,660</b>	<b>50,875</b>	<b>1,725</b>	<b>52,600</b>	<b>54,514</b>
<b>GRAND TOTAL (CCF)</b>	<b>0</b>	<b>84,816</b>	<b>14,800</b>	<b>70,016</b>	<b>84,816</b>	<b>8,345</b>

**APPENDIX B. Proposed AWRP Project Location Maps by Fiscal Year.**

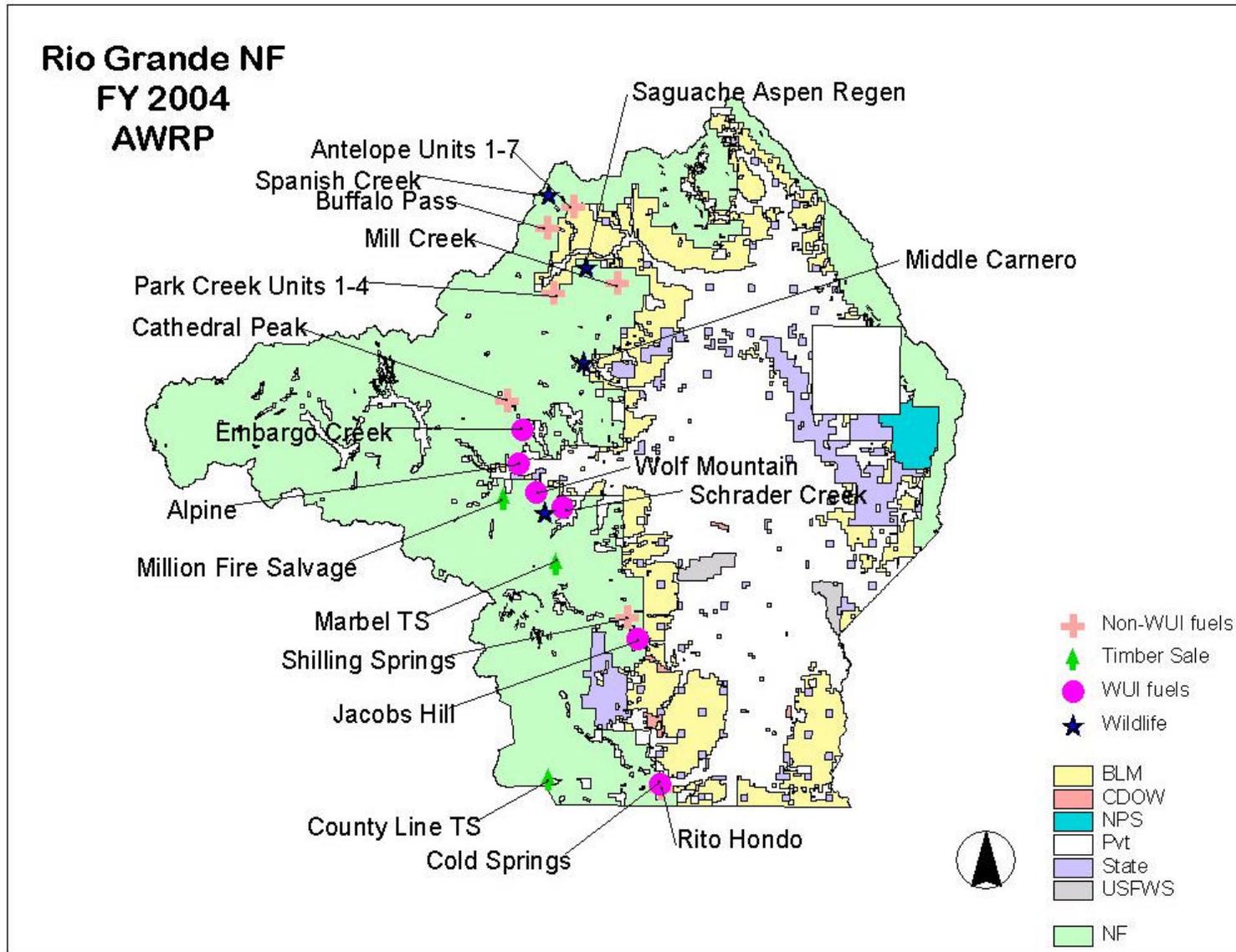


Figure B-1. FY04 AWRP Project Location Map.

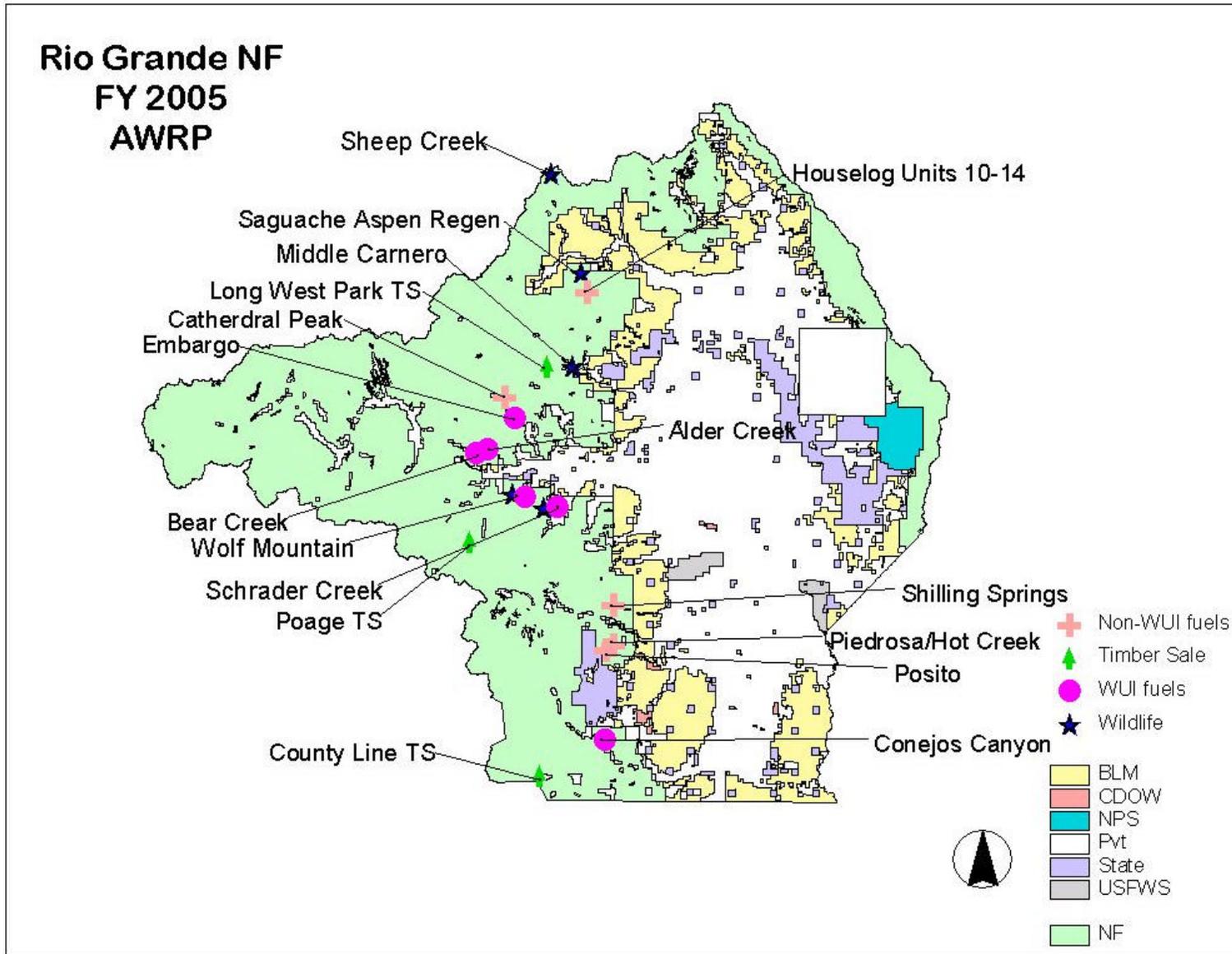


Figure B-2. FY05 AWRP Project Location Map.

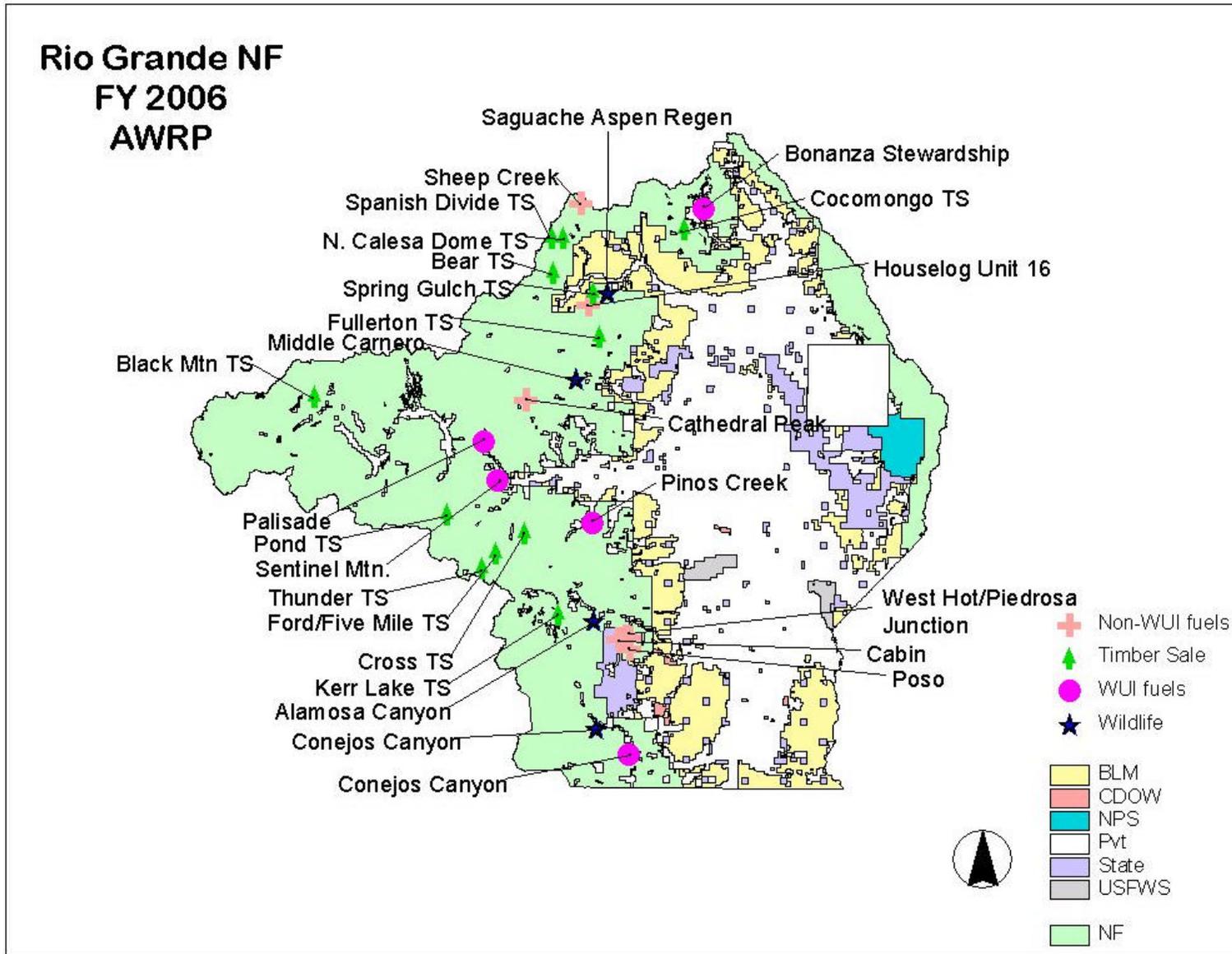


Figure B-3. FY06 AWRP Project Location Map.

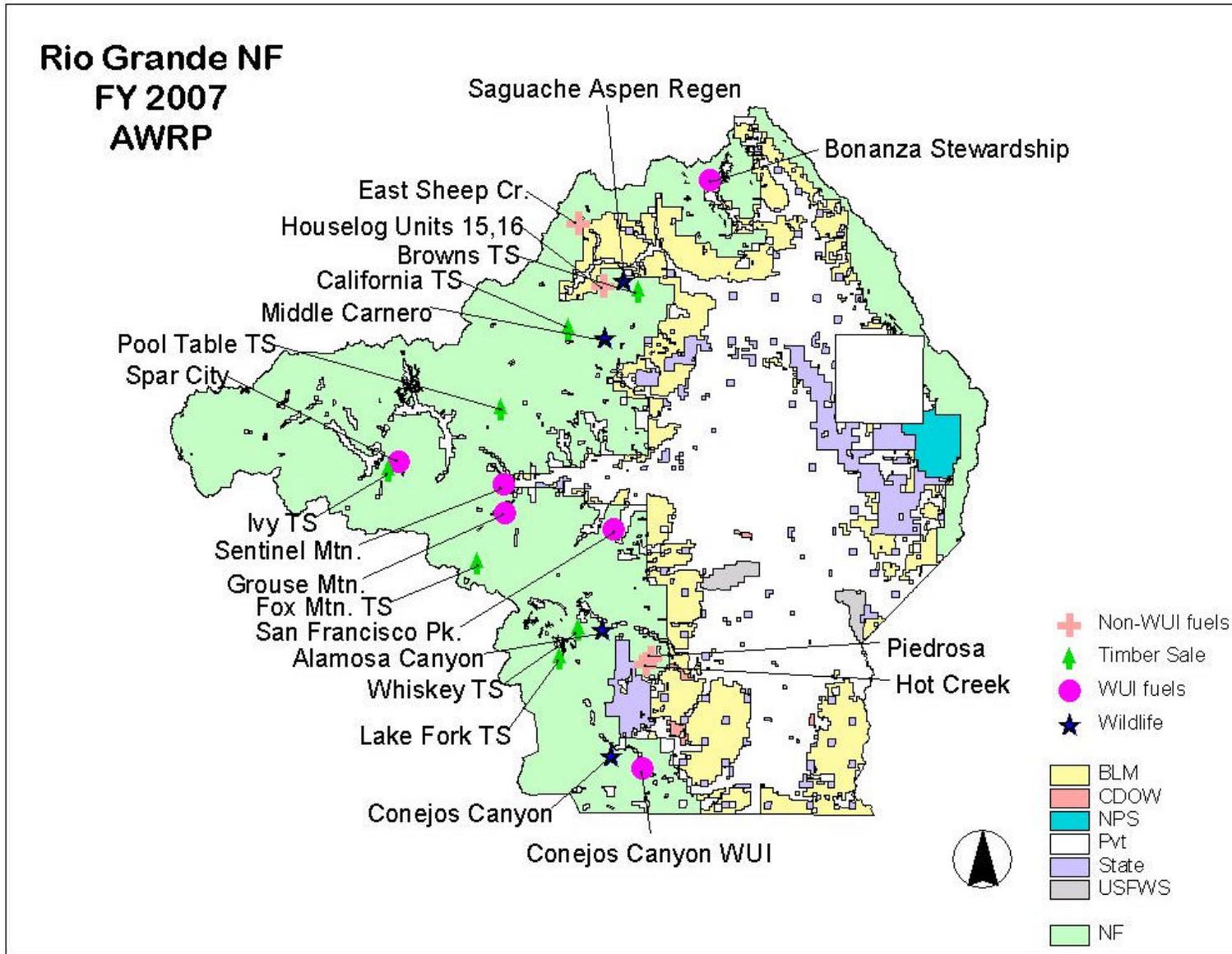


Figure B-4. FY07 AWRP Project Location Map.

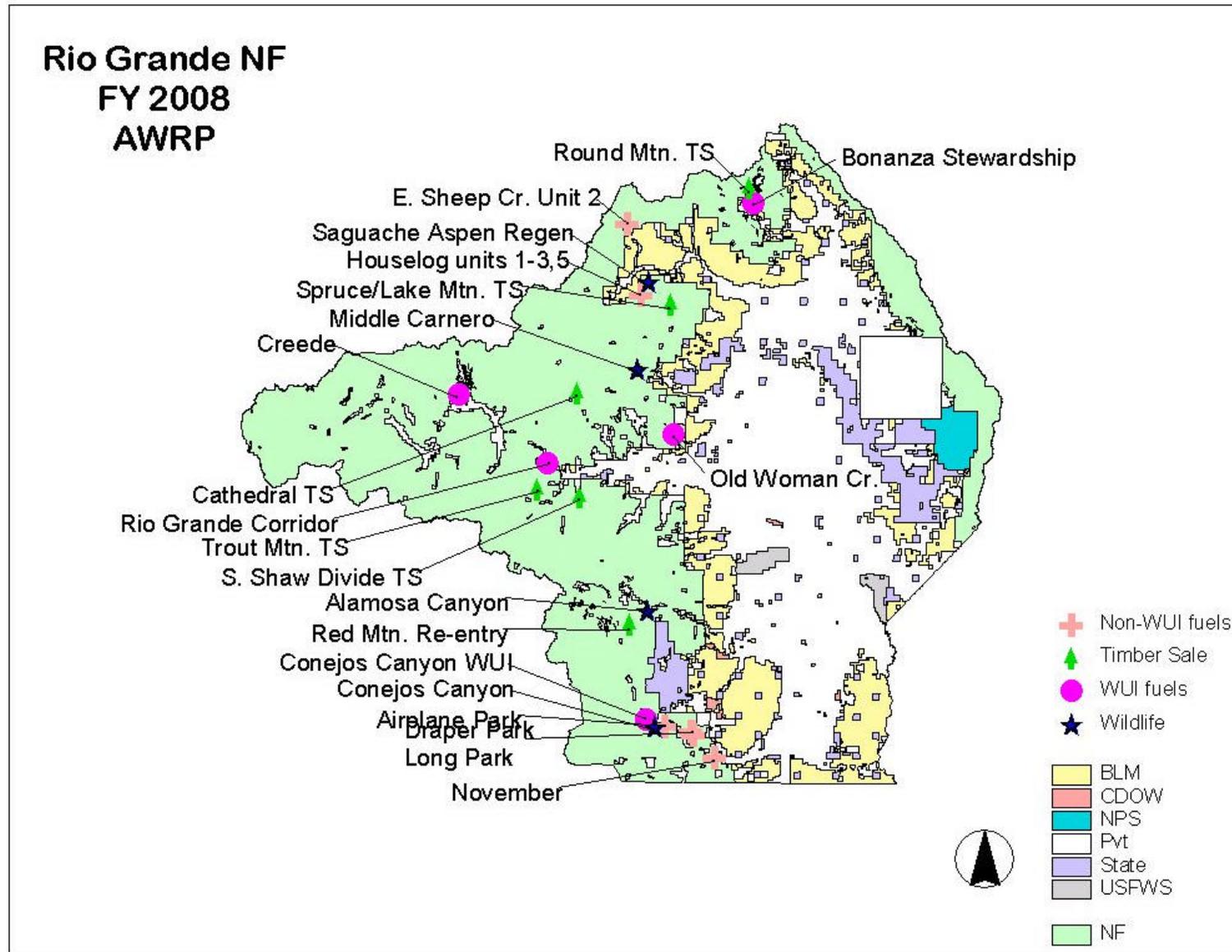


Figure B-5. FY08 AWRP Project Location Map.

## **APPENDIX C. Wildland Urban Interface (WUI) areas in relation to the Rio Grande National Forest.**

The Forest is using two commonly accepted definitions of Wildland Urban Interface:

**“the urban Wildland interface community exists where humans and their development meet or intermix with wildland fuel.”**

This definition is found in the Federal Register/Vol. 66, No. 3/Thursday, January 4, 2001/Notices; and “Fire in the West, The Wildland/Urban Interface Fire Problem” A Report for the Western States Fire Managers, September 18, 2000.

**“the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuel.”**

This definition is found in the NWCG Glossary and the 10-Year Comprehensive Strategy Implementation Plan.\

Figure C-1 (next page) shows the WUI areas in relation to the Rio Grande National Forest. Typically, there are WUI areas surrounding the lower perimeter of the Forest. But, there are also stringers of WUI perforating well within the interior of the Forest. All of these areas could be at considerable risk if there was a catastrophic fire. Our WUI areas generally include Kerber Creek (Bonanza area), Rio Grande River (and the myriad of tributaries containing private lands), Alamosa River, and Conejos River corridors.

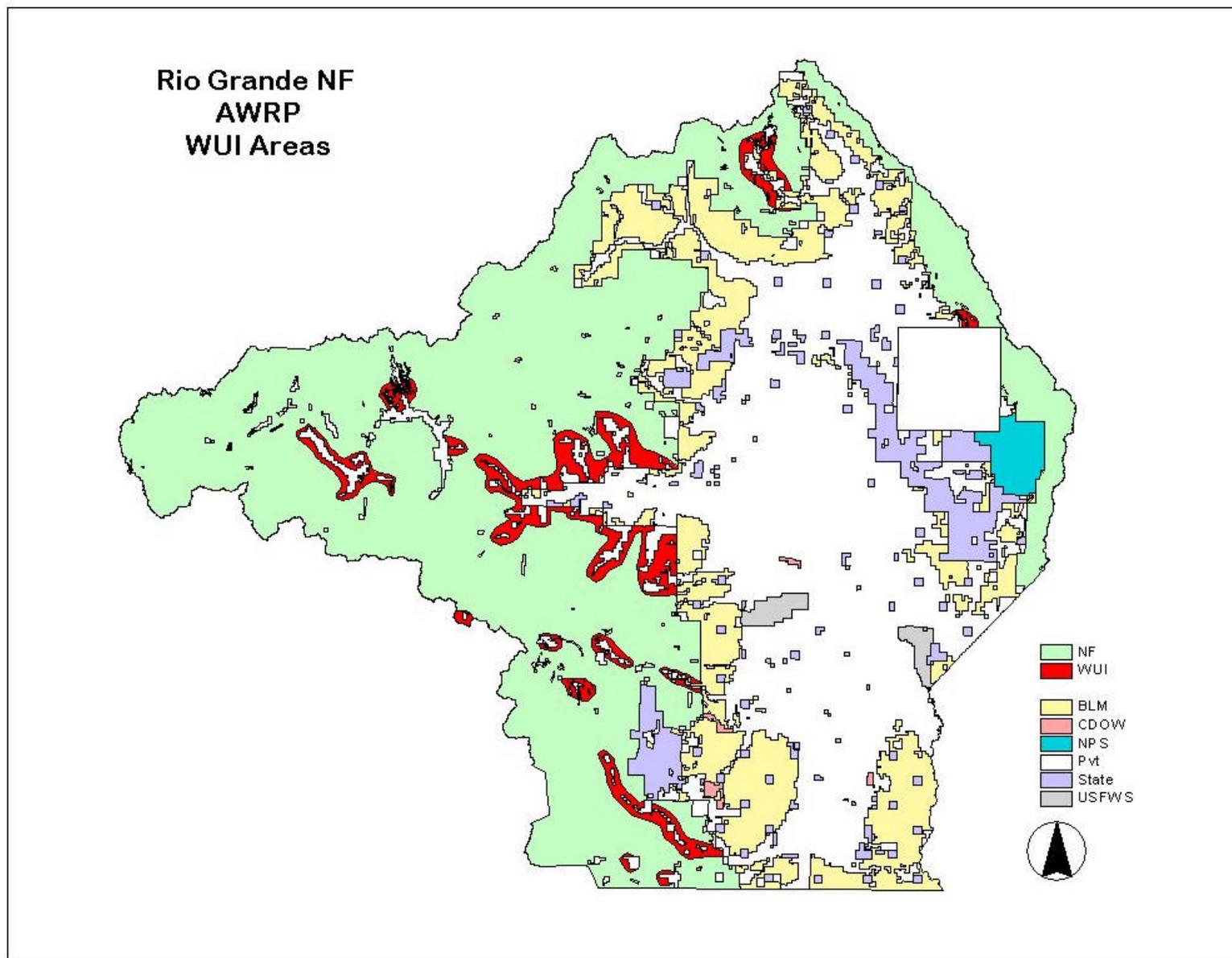


Figure C-1. WUI areas in relation to the Rio Grande National Forest.

**APPENDIX D. Proposed AWRP Project sequencing, by Fiscal Year, for the Watershed, Recreation, Scenic Resource, and Minerals Programs.**

**Watershed Program**

The sequence for planning and implementing watershed improvements is to either complete a Forest-wide programmatic watershed environmental analysis, or to analyze watershed projects with fuels, timber, or wildlife project analyses. The detailed Watershed Program is articulated by fiscal year below showing highest priority areas and an alternate priority treatment area.

- FY04** **Saguache RD** -- West Park Creek Watershed -- work in the Hat Springs priority landscape will be proposed for funding this year. This aligns with planned timber and fuels projects. Road improvements and treatment impacts will be the focus. Approximately 200 acres of acreage target will be accomplished. NFWW and CMRD funds will be partnered to accomplish the improvement needs. An alternate restoration priority is the Mill Creek watershed where similar priorities exist.
- FY05** **Divide RD** -- Embargo, Bear, and Alder Creek Watersheds -- work will be proposed for funding this year. This aligns with planned fuels treatments priorities on the ranger district. Roads and treatment impacts will be the watershed improvement focus. Approximately 200 acres of improvements will be accomplished using NFWW and CMRD funds. An alternate restoration priority is the Cathedral Fuels project area.
- FY06** **Conejos Peak RD** -- The Upper Rio de los Pinos Watershed -- work will be proposed for funding this year. This aligns with planned timber and fuels projects, and is done throughout the Countyline Salvage area -- a timber program priority. Road improvements and mitigating treatment impacts will be the focus. Approximately 200 acres of acreage target will be accomplished. NFWW and CMRD funds will be partnered to accomplish the improvement needs. An alternate restoration priority is the Jacob's Hill area where road impacts exist.
- FY07** **Saguache RD** -- Sheep Creek Watershed -- work in the Cochetopa Hills priority landscape will be proposed for funding this year. This aligns with planned timber and fuels projects. Road improvements and mitigating treatment impacts will be the focus. Approximately 200 acres of acreage target will be accomplished. NFWW and CMRD funds will be partnered to accomplish the improvement needs. An alternate restoration priority is the Houselog Creek watershed where similar priorities exist.
- FY08** **Conejos Peak RD** -- Middle and Lower Fox Creek Watersheds -- work will be proposed for funding this year. This aligns with the planned November Timber Sale and fuels projects. Road improvements and mitigating treatment impacts will be the focus. Approximately 200 acres of acreage target will be accomplished. NFWW and CMRD funds will be partnered to accomplish the improvement needs. An alternate restoration priority is the Long Park watershed where road priorities exist.

## **Recreation Program**

The first planned project is the spraying of trees over the next five years within our developed recreation sites that are within high-risk insect infestation landscapes. The purpose and need of this work is to protect and retain trees in our developed sites for the aesthetic value they provide to visitors' camping experience. We expect over this five-year period that there will be between 260 to 350 acres treated in our developed sites, depending on the extent of the insect infestation. NFRW funds will be used to complete this work by contract.

The second planned project involves the removal of hazard, infested, diseased, and dead trees from the Forest's developed recreation sites over the next five years to improve tree vigor of the remaining trees within these sites. The purpose and need is to reduce the safety and liability risk of the infested, diseased, and dead trees in our developed recreation sites to enhance the natural setting (aesthetics) and camping experience. There will be between 150 to 200 acres treated annually depending on the extent of the dead, infested, and diseased trees. NFRW funds will be used to complete this work by contract.

## **Scenic Resources Program**

It is expected that approximately 100 to 1,000 acres of Scenic Rehabilitation may take place as a result of implementing the AWRP. The types of rehabilitation will vary by watershed. However, it is expected that several of the following types of rehabilitation can be expected:

1. Creating curvilinear vegetation lines on the landscape to repair straight line edges from previous management treatments;
2. Corrective color changes to facilities or other structures on the landscape;
3. The use of vegetation screening for management activities;
4. Additional vegetation management (fuels treatments, timber harvest, wildlife habitat improvement, etc.) to bring landscapes closer to the desired Scenic Integrity Objective for the area.
5. Removal of vegetation (fuels treatments, timber harvest, wildlife habitat improvement, etc.) to increase species diversity on particular landscapes.
6. Corrective work to repair or improve any issues created through AWRP vegetation treatments.

The key rehabilitation projects are identified below and they are synchronized with the vegetation treatments proposed in the AWRP (see Appendix A). Many of these projects run over a multiple year period in order to complete rehabilitation in phases.

**FY04**

**Divide RD** -- Cathedral/Embargo Creek/Bear Creek Rehabilitation (782 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Saguache RD** -- Buffalo Pass/Antelope Rehabilitation (1482 acres) will require additional harvesting and fuels treatment to restore the landscape and help bring the area closer to the Desired Scenic Integrity Objective.

**Conejos RD** -- Rito Hondo (200 acres) may require additional harvesting, fuels treatment, and management activities to eliminate unnatural edges, shapes, patterns, and colors on the landscape.

**FY05**

**Divide RD** -- Cathedral/Embargo Creek/Bear Creek Rehabilitation (782 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Conejos RD** -- Conejos Canyon (800 acres) may require additional harvesting, fuels treatment, and management activities to eliminate unnatural edges, shapes, patterns, and colors on the landscape.

**FY06**

**Divide RD** -- Cathedral/Crystal Lakes Rehabilitation (11,941 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Saguache RD** -- Sheep Creek/Bonanza Rehabilitation (400 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Conejos RD** -- Poso/Conejos Canyon Projects (900 acres) may require additional harvesting, fuels treatment, and management activities to eliminate unnatural edges, shapes, patterns, and colors on the landscape.

**FY07**

**Divide RD** -- Spar City/Grouse Rehabilitation (200 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Saguache RD** -- East Sheep Creek/Bonanza Rehabilitation (400 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Conejos RD** -- Conejos Canyon Projects (800 acres) may require additional harvesting, fuels treatment, and management activities to eliminate unnatural edges, shapes, patterns, and colors on the landscape.

**FY08**

**Divide RD** -- Rio Grande Corridor/Creede Rehabilitation (200 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the

landscape, and alteration and concealment of structures and construction debris after treatments.

**Saguache RD** -- East Sheep Creek/Bonanza Rehabilitation (400 acres) will be proposed to bring current landscapes closer to the desired Landscape Character Goals. This will include vegetation management to eliminate unnatural edges, shapes, patterns, and colors on the landscape, and alteration and concealment of structures and construction debris after treatments.

**Conejos RD** -- Conejos Canyon Projects (800 acres) may require additional harvesting, fuels treatment, and management activities to eliminate unnatural edges, shapes, patterns, and colors on the landscape.

### **Minerals Program**

The Forest's Minerals Program is planning two projects with NFMG funds related to AWRP; one is in FY05 and it involves partial restoration of a large gravel pit (Chickenfoot Pit on the Divide Ranger District); and the other is in FY06 and it involves reclaiming an abandoned minerals-exploration road near Summitville (Conejos Peak Ranger District). Both projects intend to improve watershed condition.

**APPENDIX E. Fire Regimes and Condition Classes Defined.**

Fire Regimes and Condition Classes are defined in the following:

1. 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.
2. 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.

**Fire Regime Descriptors**

Five combinations of fire frequency, expressed as fire return interval and fire severity are defined in (Table E-1). **Groups I and II** include fire return intervals in the 0-35 year range. **Group I** includes ponderosa pine, other long-needle pine species, and dry-site Douglas fire. **Group II** includes the drier grassland types, tall grass prairie and some chaparral ecosystems. **Groups III and IV** include fire return intervals in the 35-100+ year range; and **Group V** is the long-interval (infrequent), stand replacement fire regime.

Groups I and II occupy nearly all the lower elevation zones across the United States. They have been most affected by the presence of human intervention and our analysis shows that these types demonstrate the most significant departure from historical levels. The departures are affected largely by housing development, agriculture, grazing and logging. These areas are at greatest risk to loss of highly valued resources, commodity interests, and human health and safety. It is expected that these areas will receive primary focus of wildland management agencies in the future.

**Table E-1. Fire Regime Group, Frequency, and Severity.**

<b>Fire Regime Group</b>	<b>Frequency (Fire Return Interval)</b>	<b>Severity</b>
<b>I</b>	<b>0-35 years</b>	<b>Low severity</b>
<b>II</b>	<b>0-35 years</b>	<b>Stand replacement severity</b>
<b>III</b>	<b>35-100+ years</b>	<b>Mixed severity</b>
<b>IV</b>	<b>35-100+ years</b>	<b>Stand replacement severity</b>
<b>V</b>	<b>&gt;200 years</b>	<b>Stand replacement severity</b>

**Current Condition Class Attributes**

Three *Condition Classes* have been developed to categorize the current condition with respect to each of the five historic Fire Regime Groups (Table E-2). Current condition is defined in terms of departure from the historic fire regime, as determined by the number of missed fire return intervals – with respect to the historic fire return interval – and the current structure and composition of the system resulting from alterations to the disturbance regime. The relative risk of fire-caused losses of key components that define the system increases for each respectively higher numbered condition class, with little or no risk at the Class I level.

**Table E-2. Condition Class Descriptions.**

<b>Condition Class<sup>1</sup> Descriptions</b>		
<b>Condition Class</b>	<b>Fire Regime</b>	<b>Example Management Options</b>
Condition Class 1	Fire regimes are within an historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range.	Where appropriate, these areas can be maintained within the historical fire regime by treatments such as fire use.
Condition Class 2	Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range.	Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the historical fire regime.
Condition Class 3	Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range.	Where appropriate, these areas may need high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the historical fire regime.
<p><sup>1</sup> Current conditions are a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire suppression, timber harvesting grazing, introduction and establishment of exotic plant species, insects or disease (introduced or native), or other past management activities.</p>		