

Proposed Action for the Rodeo Chediski Fire Prescribed Burn Project

Black Mesa and Lakeside Ranger Districts Apache-Sitgreaves National Forests Coconino and Navajo Counties, Arizona

Background

An assessment was initiated for the Rodeo Chediski Fire Prescribed Burn Area (RCRxA) in 2007. The RCRxA lies within Coconino and Navajo counties north of the Mogollon Rim, and covers about 164,242 acres of both private and federally managed lands on the Black Mesa and Lakeside Ranger Districts. The communities of Forest Lakes, Heber, Overgaard, Clay Springs, Pinedale, Linden, and Show Low all lie along the northern boundary of the project.

Existing Condition

Approximately 80% of the project area is a Ponderosa Pine forest type, with the remainder being either mixed conifer or Oak and Juniper woodland. Fuel loadings range from 10-20 tons per acre (tpa) in areas that have been treated or salvage logged, to 60 tpa in untreated areas.

The 2002 Rodeo Chediski Fire, like most fires, burned in a mosaic pattern. The overall current conditions within the RCRxA can best be described by dividing the area into two categories based on fire effects severity¹. *Category 1* includes areas of the project, within the fire perimeter, that were unburned, underburned or burned under low intensity fire (low severity effects) and most often had only the lower limbs scorched thus lifting the crowns, and a reduction of a portion of the ground fuels. These areas are little changed from pre-fire conditions and normally consist of thick overgrown stands of ponderosa pine, juniper, or mixed conifer. This category also includes approximately 13,000 unburned acres that lie outside of the fire perimeter, a large portion of which have been thinned since the fire. *Category 2* includes both moderate and high severity burned areas which have very few large trees left, with numerous snags and down logs. Grasses, forbs, woody shrubs, and tree species such as gray oak, gambel oak, pine, and juniper have regenerated naturally after the fire, some in significant numbers.

The majority of the RCRxA is currently classified as Fire Regime Condition Class (FRCC) 3² indicating that natural disturbances and historic processes have been altered and are at increased risk of unnaturally intense wildfire behavior and insect epidemics. The risk of loss of key ecosystem components (native species, large trees, and soils) is high. Some wildlife habitat and threatened and endangered species in the RCRxA are also at risk due to this unnatural condition.

Desired Condition

The best way of alleviating the potential of large destructive fires within the analysis area, is to create fuel situations that would reduce the energy output of fire starts to a point where conventional fire fighting methods can be effective. A condition in which natural and/or prescribed fire is used to maintain fuel loadings and tree densities is desired. The proposed treatments would reduce the

¹ Severity is a set of terms that describe the effects of a fire on the soils and vegetation, as opposed to the term intensity which is a measure of the heat produced by the fire while burning.

² Fire Condition Classes are used to categorize and describe vegetation composition and structure conditions that currently exist within a fire regime group as it relates to historical ranges, to serve as a generalized wildfire risk rating.

likelihood of large scale crown fires, provide the opportunity to manage wildfires for ecosystem benefits, and maintain surface fuel loadings of 5-7 tpa in ponderosa pine and juniper woodlands, and 7-10 tpa in mixed conifer.

The overall desire is to move the area from a Condition Class 3, towards Condition Class 1. Condition Class 1 would be characterized by healthy vigorous stands, where portions of the stand are in a seral³ condition at all times while other portions may be in a late successional state, with Aspen, oak, and other hardwood species successfully regenerating and growing in patches across the landscape. This condition is reflective of the natural range of variability related to vegetation-fuel composition and structure. Also fire frequency, behavior, and effects are consistent with a frequent low severity fire regime (0-35 years), and other associated disturbances are similar to those that occurred prior to fire exclusion. The risk of loss of key ecosystem components is therefore low.

The National Fire Plan⁴ (NFP) addresses five key points: firefighting; rehabilitation and restoration; hazardous fuel reduction; community assistance; and accountability. The fuel management and reduction focus is critical to the Plan. It addresses overly dense forest vegetation that is the result of decades of fire exclusion from those lands. Fuel management activities should incorporate all treatments necessary to change stand condition classes from higher risk of damage resulting from wildfire to lower risk. Proposed treatments would maintain areas in which a desirable condition class has been established. In addition to the NFP, a 10-year Comprehensive Strategy⁵ was developed to reduce wildland fire risks to communities, the environment and to aid in correcting problems associated with the long-term disruption in natural fire cycles. The goals of the strategy are to: 1) improve prevention and suppression; 2) reduce hazardous fuels; 3) restore fire-adapted ecosystems; and 4) promote community assistance. The RCRxA Project is proposed under the authorization of the Healthy Forest Restoration Act (HFRA) in response to the elements of fuels reduction and restoration of fire-adapted ecosystems in both the plan and the strategy.

Purpose and Need for Action

Comparisons of the existing and desired conditions for the project area were completed in the assessment (2008) for the RCRxA and indicated the need for:

- moving the project area towards condition class 1 through the re-introduction of fire.
- reduced forest fuels and tree densities
- reduced risk of uncharacteristically intense fire behavior
- improved upland watershed conditions
- improved vegetative structural stage distributions
- managing and promoting natural regeneration
- improved and maintained wildlife habitat and browse

The Rodeo/Chediski Fire Prescribed Burn Project is being proposed at this time to respond to the goals and objectives of the Apache-Sitgreaves National Forests Plan (Land Management Plan) (USDA Forest Service 1987, as amended 2008), the National Fire Plan, and the 10-year Comprehensive

³ Successive changes in flora and fauna that occupy a site and create a stable system during the process of ecological succession.

⁴ The National Fire Plan (NFP) (September 9, 2000) is the USDA response to a request from President Clinton, for Federal land management agencies to develop an interagency approach to respond to severe wild land fires, reduce impacts on rural communities, and ensure sufficient fire fighting capacity in the future. See the NFP internet site for more information: <http://www.forestandrangelands.gov/NFP/index.shtml>

⁵ A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment describes the 10 year Comprehensive Strategy (May, 2002). See <http://www.forestandrangelands.gov/plan/documents/11-23en.pdf>

Strategy. This is an approved HFRA project. The proposed activities and treatments would move the project area toward desired conditions as described in these plans.

Proposed Action

The Black Mesa and Lakeside Ranger Districts, Apache-Sitgreaves National Forests are proposing prescribed burning (see Appendix for maps of treatments) on approximately 148,222 acres⁶ of National Forest System Lands. No fuelbreaks are being proposed at this time, however minor vegetation manipulations⁷ necessary to implement the prescribed burning will be analyzed and implemented under this proposed action. Actions included in this proposal are summarized below (percent total area) and described in **Table 1**.

66,788 acres of prescribed burning in category 1 acres (%45)
 81,434 acres of prescribed burning in category 2 acres (%55)

Table 1

Category 1 Unburned Underburned Low Severity 66,788 acres	Over 80% of the area, use a range of fire prescriptions ⁸ to move the area towards Fire Regime Condition Class 1. Reduce or maintain dead and down fuel loadings to 5-7 tons per acre (tpa) in ponderosa pine and juniper woodlands, and 7-10 tpa in mixed conifer. Use fire to thin the understory tree and shrub vegetation, and raise tree crowns to achieve the desired condition and promote fire resilient stands. Periodically implement future prescribed burns to maintain the desired conditions.
	In preparation for burning, evaluate the need to manipulate live and dead fuels within 60-150 feet of designated control lines. Live fuels <5" DBH/DRC could be thinned, and live fuels >5" DBH/DRC could be pruned or limbed to raise lowest limb to 6'. Natural and created (by thinning and pruning) slash fuels and deadfall could be lopped and scattered, piled and burned, or removed. All snags within 150 feet of control lines could be removed. Forest Plan standards for snags and logs will be followed within remaining burn area. <i>DBH = diameter at breast height (4'), used to measure conifer species such as pine.</i> <i>DRC = diameter at the root collar, used to measure hardwood species such as oak and juniper.</i>
Category 2 Moderate High Severity 81,434 acres	Over 80% of the area, use a range of fire prescriptions to move the area towards Fire Regime Condition Class 1. Use prescribed fire to control regenerating brush and tree species to achieve more open stand conditions consistent with the desired condition. Reduce or maintain dead and down fuels to 5-7 tpa in Ponderosa Pine and Juniper Woodland, and 7-10 tpa in mixed conifer. Use prescribed fire to achieve age class diversity in the browse species, such as ceonothus. Use prescribed fire to promote and improve forage production and upland watershed desired conditions. Periodically implement future prescribed burning to maintain the desired conditions.
	In preparation for burning, evaluate the need to manipulate live and dead fuels within 60-150 feet of designated control lines. Live fuels <5" DBH/DRC could be thinned, and live fuels >5" DBH/DRC could be pruned or limbed to raise lowest limb to 6'. Natural and created slash fuels and deadfall could be lopped and scattered, piled and burned, or removed. All snags within 150 feet of control lines could be removed. Forest Plan standards for snags and logs will be followed within remaining burn area.

⁶ Treatment areas may receive multiple treatments.

⁷ These activities are designed to moderate fire intensities and mitigate the potential for spot fires as the prescribed burn reaches a control line.

⁸ The term prescriptions refers to a set of weather and fuel moisture parameters designed to produce certain fire intensities, thus producing the desired fire severity effects.

Where: The analysis and treatment areas are located in the southern portion of the Black Mesa Ranger District, and the southwest portion of the Lakeside Ranger District in Coconino and Navajo Counties, Arizona. The general boundaries are:

- Mule Creek to the west
- State Highway 260 to the north
- Forest Road 135 on the east
- The Mogollon Rim on the south

See Appendix for maps showing boundaries of the project area and more exact locations of proposed treatments.

When: The environmental assessment is scheduled for completion with a decision document signed by December 2009. There will be an HFRA objection process. Implementation may begin immediately following the final decision. The following is a guideline for how the treatments would be scheduled within any given portion of the project area, i.e. some areas of the project would require no preparation prior to prescribed burning. Completion of the prescribed burning would happen as funding and environmental constraints permit, but it is expected that it could take 10-15 years to complete all of the initial treatments, with follow-up maintenance burns needed after.

Step 1. Burn area preparation

Step 2. Broadcast Burn

Step 3. Maintenance Burn

Decision To Be Made

The Black Mesa and Lakeside District Rangers will decide whether to implement the proposed action as described above or as described in an action alternative developed in response to issues. If an action alternative is selected it will include:

- The location, design, and scheduling of the proposed broadcast, and maintenance burning; and other activities or related actions.
- Mitigation measures and monitoring requirements.

APPENDIX

Public comment form 6

MAPS

General Project Vicinity Map – Map 1 of 2 7

Proposed Prescribed Burning – Map 2 of 2 8

