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Proposed Action
Bonito Forest Restoration Project
USDA Forest Service
Smokey Bear Ranger District; Lincoln National Forest
Lincoln County, New Mexico

The Smokey Bear Ranger District interdisciplinary (ID) team has reviewed existing conditions (amount of downed woody fuel material, high tree density and ladder fuels) for the 28,488 acre Bonito Forest Restoration Project located on National Forest lands and identified opportunities (reduction of crown fire potential to protect and enhance watershed, recreational and forest health resource values) to begin transitioning toward desired conditions described in and adopted by the Land and Resource Management Plan for the Lincoln National Forest, as amended (Forest Plan). The majority of the Bonito Forest Restoration Project is located in the Upper Rio Bonito (6th level hydrologic unit code watershed) which includes 16,039 acres of the White Mountain Wilderness (see attachment 1).

The Bonito Forest Restoration Project surrounds 1,772 acres of private land which are located in the center of the project, dividing the project into two blocks. The private land includes City of Alamogordo property which contains a municipal water source (Bonito Reservoir) that provides water to Alamogordo, NM and Holloman Air Force Base, as well as many smaller communities. The south and west portions of the Bonito Forest Restoration Project are contained within the 16,039 acres of the White Mountain Wilderness. The north and east sides of the Bonito Forest Restoration Project adjoin private property along with state land. Approximately 16,000 acres of the project are within the wildland-urban interface identified in the Greater Ruidoso Community Wildfire Protection Plan (CWPP).

The Greater Ruidoso CWPP provides guidance, utilizing community collaboration, for prioritizing acres for treatment of hazardous fuels. Currently, over 50,000 acres south and west of the Bonito Forest Restoration Project have or are being treated for hazardous fuels based on the direction of the Greater Ruidoso CWPP. The inclusion of the Bonito Forest Restoration Project acres would further enhance and strengthen the intent of the Greater Ruidoso CWPP.

The Forest Plan provides primary direction for all management activities on the Lincoln National Forest. It contains the *Mission, Goals and Management Direction* for guiding all natural resource management activities for the Lincoln National Forest.

The Bonito Forest Restoration Project includes parts of two Forest Plan Management Areas (MA): MA 1F – White Mountain Wilderness and MA 1G – Rio Bonito as defined by the Forest Plan. The Forest Plan provides that these two MAs have a primary emphasis on management for dispersed recreation development, wildlife habitat and wilderness management. Based on this



Forest Plan guidance, the Bonito Forest Restoration Project would meet current Forest Plan standards and guidelines.

DESIRED CONDITIONS FOR MA 1F AND 1G:

The overall desired condition is to restore understory grasses and forbs biodiversity and abundance, which will minimize sediment movement within the watershed while providing wildlife habitat. This means reducing stand densities and promoting fire adapted species which will return watershed characteristics toward Pre-Euro American settlement.

Forest Composition

The desired forest tree composition would be maintained with a shift in species preference toward desired mid-serial species. There would be a lower percentage of white fir tree species and a greater dominance by white pine, ponderosa pine and Douglas-fir species than are currently represented. The landscape would also contain some very sparsely stocked oak woodland along with scattered large and small open meadows. The current variety of native hardwood trees that exist in the Bonito Forest Restoration Project would remain intact and would be periodically regenerated by prescribed burns. The understory composition would increase as species diversity was increased as a result of tree density reductions. The forest floor would be dominated by a variety of grasses, forbs and shrubs, especially in the small canopy openings between denser patches of trees.

Forest Structure

The desired forest structure is an overstory tree canopy that is highly variable, with areas of widely spaced tree crowns, and other areas with patches of trees with interlocking branches. There would be substantially fewer seedlings, saplings and pole-sized trees, resulting in a more even distribution of tree sizes.

The desired structure would result in more open stands at lower elevations on drier south and west facing slopes. Higher density sites would occur at higher elevations and on north and east facing slopes and in drainage bottoms. Larger trees would dominate the landscape, although there would still be scattered groups of seedlings, saplings and pole-size trees.

The desired condition, in the mixed conifer, would be retention of 80 ft² to 100 ft² of basal area (BA) per acre. These stands would have a greater component of southwestern white pine, returning them to more historical conditions. The desired condition, in the ponderosa pine stands, would be retention of 40 ft² to 80 ft² BA per acre. The emerging overstory in these stands would be mainly ponderosa pine, with regeneration consisting mainly of ponderosa pine. Encroaching species, such as juniper and pinyon, would be minimal to nonexistent. The desired condition in the pinyon-juniper would be a mosaic of open juniper savanna and clumpy pinyon-juniper woodlands.

CURRENT CONDITIONS FOR MA 1F AND 1G:

Forest Composition

The lack of frequent surface fires has resulted in higher numbers of trees per acre and shading of the forest floor. The shading has increased the abundance of shade-tolerant white fir trees and decreased the number of shade-intolerant ponderosa pine and Douglas-fir trees. The shade-tolerant white fir species that now dominate the area are easily killed by fire, whereas large ponderosa pine and Douglas-fir trees are ecologically fire-adapted and typically survive low to moderate intensity surface fires.

The lack of surface fires and increase in tree canopy cover has resulted in a decrease of grasses, forbs and shrub species on the forest floor. The lack of grasses and other surface vegetation limits the ability of the area to support wide spreading surface fires, while reducing wildlife habitat quality, biological diversity and overall functionality of these ecosystems.

Forest Structure

The Bonito Forest Restoration Project is overgrown with an average trees per acre numbering around 1,300; with 90 percent of the trees less than five (5) inches at diameter breast height (dbh). The BA per acre averages between 125 ft² and 200 ft² per acre, with the lowest BA recorded as 65 ft² per acre and the highest as 250 ft² per acre.

Management Direction

The Forest Plan also contains a set of *Goals and Objectives* that define the state or condition that a land and resource management plan is designed to achieve and a specific statement of measurable results to be achieved within a stated time period, respectively. The following is a summary of the relevant *Goals and Objectives* that can be addressed, wholly or partially, through management opportunities in the Bonito Forest Restoration Project.

Timber –

- Manage suitable timber land to provide a sustained yield of quality timber, provide a range of habitats for wildlife and visual resources, and to minimize impacts of insects and diseases on resources. Manage pinyon-juniper lands to provide a sustained yield of fuelwood. Provide fuelwood from suitable timber land as a by- product of timber management activities. Use integrated resource management concepts to direct all timber management activities.

Wilderness -

- Manage wilderness to achieve the intent of the Wilderness Act of 1964. Allow fire to play a natural role. Manage air quality in conformance with the Clean Air Act and consistent with wilderness values.

Wildlife and Fish –

- Manage habitat for wildlife populations consistent with goals outlined in the New Mexico Comprehensive Plan and consistent with other resource values.
- Provide for a diversity of plant and animal species through improved habitat management.
- Provide for the improvement of habitat for threatened and endangered species to meet the goals and intent of the Endangered Species Act of 1973.
- Provide for management of sensitive species in accordance with Regional requirements.

Water and Soils -

- Provide direction and support to all resource management activities with emphasis on maintaining water quality and quantity.
- Secure and provide an adequate supply of water for the protection and management of the Forest.
- Manage for a favorable flow of water for users by improving or maintaining all watersheds to a satisfactory or higher condition.
- Maintain water quality to meet or exceed appropriate standards.
- Maintain on-site soil loss within established tolerance levels.
- Manage riparian areas to provide optimum vegetation and ecological diversity.

Human and Community Development -

- Provide opportunities to satisfy local demand for Forest resources.

Protection -

- Protect life, property and resources from wildland fire. Use prescribed burning as a tool to meet management needs and objectives.
- Apply integrated pest management to minimize losses due to insects and diseases, emphasizing silvicultural methods.

Following are descriptions of opportunities that address relevant Forest Plan *Goals and Objectives* and begin transition toward desired conditions by implementing *Management Prescriptions and their specific Standards and Guidelines*. ‘Standards,’ the rules against which practices are measured, and other guidance provide the technical and scientific specifications that must be met to complete acceptable projects. Forest Plan ‘Standards’ were developed to ensure compliance with applicable laws, regulations, Presidential Executive Orders and policies; to resolve management issues and concerns; and to direct management practices toward achievement of desired conditions.

Attached is a map showing the boundaries of the Bonito Forest Restoration Project and the rough location of the different types of opportunities.

PROPOSED ACTION

Overstory tree removal, understory tree removal and prescribed fire applied across 27,000 acres of the Bonito Forest Restoration Project (attachment 2) to reduce tree densities across all forest cover types. The following treatment methods and prescriptions could be used to meet the purpose and need, moving the Bonito Forest Restoration Project toward the desired conditions.

Mechanical Treatment

Thin (<9” dbh) 8,345 acres of the Bonito Forest Restoration Project for mixed conifer (80 ft² to 100 ft² BA per acre) and ponderosa pine (40 ft² to 80 ft² BA per acre) forest types:

- Free thin to a spacing guide of 20-25 feet retaining at least 20 trees per acre less than 9” dbh, striving to maintain an uneven-aged stand. Species preferences would be as follows: southwestern white pine, ponderosa pine, Douglas-fir, pinyon pine, juniper and white fir.

Thin (>9” dbh) 1,050 acres of the Bonito Forest Restoration Project for mixed conifer (80 ft² to 100 ft² BA per acre) forest type:

- Free thin across all tree diameter ranges up to 24” dbh favoring large tree retention over smaller trees while maintaining or enhancing the uneven-aged nature. Tree thinning would favor retaining healthy/vigorous trees, targeting trees of lower vigor or trees with higher levels of insect and disease activities. Species preferences would be as follows: southwestern white pine, ponderosa pine, Douglas-fir, pinyon pine, juniper and white fir.

Thin (>9” dbh) 400 acres of the project area for ponderosa pine (40 ft² to 80 ft² BA per acre) forest type:

- Free thin across all tree diameter ranges favoring large tree retention over smaller trees while maintaining or enhancing the uneven-aged nature. Tree thinning would favor retaining healthy/vigorous trees, targeting trees of lower vigor or trees with higher levels of insect and disease activities. Species preferences would be as follows: southwestern white pine, ponderosa pine, Douglas-fir, pinyon pine, juniper and white fir.

Thin (>9" dbh) 2,100 acres of the project area for pinyon-juniper forest type:

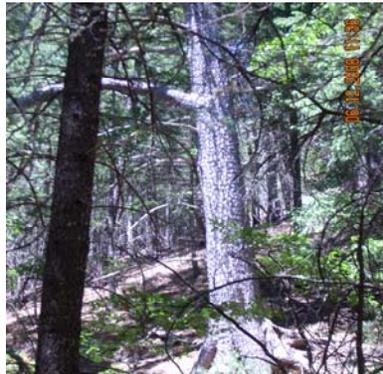
- Group selection removing all trees less than 14" diameter root collar (DRC) in a mosaic pattern. Tree removal would not be species specific, in pure pinyon-juniper stands, and would remove all pinyon and juniper trees less than 14" DRC. Group selection removal areas would not exceed 300 feet in width. Leave clumps would have no tree removal and would comprise at least 40 percent of the pinyon-juniper woodlands located within the Bonito Forest Restoration Project. Leave clumps would consist of at least three (3) trees with interlocking crowns and range up to five (5) acres in size. Species preferences to remain would be as follows: ponderosa pine, pinyon pine and juniper.

Merchantable material generated during tree removal would be hauled off site to support local industry. Non-merchantable material generated during tree removal would be piled on site and burned. Utilization includes, but is not limited to, removal of woody biomass to be processed off-site. Processing may be for production of wood pellets, mulch products, animal bedding, or other wood products.

Up to 4.0 miles of temporary roads may be used to access and remove timber for biomass utilization. All temporary roads constructed during implementation would be closed and decommissioned upon project completion. Mechanical treatment implementation could continue 5-10 years after decision notification.



Untreated Ponderosa Pine



Untreated Mixed Conifer



Untreated Pinyon-Juniper

Prescribed Burning

Prescribed burning would occur after treatments and during late summer, fall, winter or spring months on approximately 27,000 acres, including the White Mountain Wilderness, to reduce activity fuels and reintroduce frequent fire regimes to these ecosystems. Application of prescribed burning would occur when conditions are favorable to meet land management objectives. Timing and frequency would be based on buildup of activity fuels, maintenance needs and historical return intervals. Application of prescribed burning could be expected at 1-5 year intervals, beginning within one (1) year of project implementation, and continuing in perpetuity.



Ignition-Forested



Ignition-Woodland-Shrub

We invite you to participate in the development of these opportunities, including the identification of additional activities you would like to see proposed for the Bonito Forest Restoration Project; any environmental issues associated with implementation of these activities; and alternative ways to meet the Forest Plan objectives and desired conditions. Use the comment form, call, visit, or email (kkuhar@fs.fed.us) Kim Kuhar at the Smokey Bear Ranger District office. The office phone number is 575-257-4095. Your involvement will enable us to better assess concerns. We will be contacting you shortly with a more detailed proposal and soliciting your comments, which will be considered prior to making the final decision, which is expected on or about April 2009.

Thank you for your participation in the management of the Lincoln National Forest, and, particularly, the Smokey Bear Ranger District.

Sincerely,

/S/ JUAN E. "BUCK" SANCHEZ

JUAN E. (BUCK) SANCHEZ
Smokey Bear District Ranger

