This project proposal was initiated in 2008 by the Bureau of Indian Affairs (BIA) and the Pueblo of Isleta (Isleta). These two organizations approached land management agencies and owners adjacent to Isleta to explore the possibility of conducting mutually beneficial, cross jurisdictional fuels treatments in the Manzano and Manzanita Mountains. The purpose of these treatments would be to reduce the risk of uncharacteristic wildfires and protect community, cultural and natural resources at a landscape scale.

Approximate proposed treatment acres by jurisdiction are as follows: 2,000 acres on the Isleta Pueblo (Pueblo); 620 acres on Chilili Land Grant (Chilili); 1,400 acres Kirtland Air Force Base (Kirtland); 5,700 acres on the Mountainair Ranger District (RD) and 2,100 acres on the Sandia RD of the Cibola NF&G. For location of proposed treatment areas refer to Map 1: All Proposed Treatment Areas.

In addition to the land managed by the four project partners, numerous small communities adjacent to the project area are rated as high risk in the 2007 NM Communities at Risk Assessment Plan (New Mexico Energy, Minerals and Natural Resources Department [NMEMNRD] 2007) and would benefit from the fuels reduction treatments being proposed.

This document specifically describes the existing condition, desired condition and proposed action for the Sandia and Mountainair Ranger Districts (RD) of the Cibola National Forest and Grasslands (Cibola NF) included in the Isleta CFRP Fuels Reduction Project.

The Mountainair RD portion of the project area is located in the northern portion of the Manzano Mountains and begins directly south of the Pueblo and west of Chilili. The legal description of the Mountainair Ranger District portion of the project area is Township 7 North, Range 5 East, Sections 24 and 25; Township 7 North, Range 6 East, Sections 5,6,8,18,19,20,29,31,32, and 33, Township 8 North, Range 6 East, Section 32. This area is located outside of the Manzano Mountain Wilderness.

The Sandia RD portion of the project area is located in David Canyon and begins directly west of the Tranquillo Pines subdivision located west of State Highway 337 and extends west to the Department of Defense Withdrawal Area and south to the Pueblo. The legal description for the project is T. 9N, R. 6E, Section 24, 25, 36, and 6, New Mexico Principal Meridian. This area is located outside of the Sandia Mountain Wilderness and T’uf Shur Bien Preservation Trust area.

Refer to Scoping Map 1: All Proposed Treatment Units, for location of all project partner’s proposed treatment areas.
BACKGROUND

Based on historic records, there is a high lightning occurrence (approximately 250 lightning-caused fires occurred between 1970 and 2011) and human-caused fires (approximately 100 between 1970 and 2011) within the project area. Fire occurrence, an increase in human activity, and high stand densities create a greater fire risk to the vegetation and residents in nearby communities. The Manzano and Manzanita Mountains have been identified as high wildfire risk within their respective Community Wildfire Protection Plans.

Fire no longer plays its natural role in maintaining ecosystem structure and function within the project area. The increase in tree density has reduced the structural diversity of the forest and increased potential for uncharacteristic fire. These kinds of fires, such as occurred on the Mountainair RD in 2007 and 2008, and on the Sandia RD military withdrawn lands in 2009 can result in the destruction of large areas of forest vegetation. Increased diversity can help reduce the potential for loss of vegetation due to destructive wildfire.

Purpose and Need:

The purpose of the Project for all partners is to complete a series of fuel reduction treatments on lands managed by the Pueblo, Chilili, Kirtland and the Cibola NF&G Sandia and Mountainair RDs. These treatments are needed to reduce the risk of uncharacteristic wildfires that would threaten local communities as identified in the East Mountain and Torrance County Certified Community Wildfire Protection Plans, natural and cultural resources in the area, and will improve public and firefighter safety.

Existing Conditions for Sandia and Mountainair RDs:

Mountainair RD

The project area is approximately 5,700 acres. The following is the breakdown by dominant forest types based on stand exam data:

1) Pinyon-Juniper Woodland- Approximately 1000 acres. Total tree densities (trees greater than 5” Diameter at Root Collar (DRC)) range from 25-888 trees per acre (TPA). In addition, stands have an average of 1,890 TPA less than 5” DBH. Overall, canopy closure is 60%+. These areas are primarily even-aged lacking structural diversity.

2) Ponderosa Pine- Approximately 3,500 acres. Total tree densities (trees greater than 5” Diameter at Breast Height (DBH)) range from 34-1288 TPA. In addition, stands have an average of 1,758 TPA less than 5” DBH. Overall, canopy closure is 60%+. These areas are primarily even-aged lacking structural diversity.

3) Oak Woodland- Approximately 1100 acres. Total tree densities (trees greater than 5” DRC) range from 0-656 TPA. In addition, stands have an average of 2,503 TPA less than 5” DRC. Overall, canopy closure is less than 40%. These areas are primarily even-aged lacking structural diversity.
4) **Mixed Conifer**- Approximately 130 acres. Total tree densities (trees greater than 5” DBH) range from 61-502 TPA. In addition, stands have an average of 2,076 TPA less than 5” DBH. Overall, canopy closure is 60%. These areas are primarily even-aged lacking structural diversity.

**Sandia RD**

The project area is approximately 2,100 acres. The following is the breakdown by dominant forest types based on stand exam data:

1) **Pinyon/Juniper Woodland**- Approximately 1600 acres. Total tree densities (trees greater than 5” Diameter at Root Collar (DRC)) range from 62-537 trees per acre (TPA). In addition, stands have an average of 2,294 TPA less than 5” DBH. Overall, canopy closure is 60%+. These areas are primarily even-aged lacking structural diversity.

2) **Ponderosa Pine**- Approximately 400 acres. Total tree densities (trees greater than 5” Diameter at Breast Height (DBH)) range from 109-451 TPA. In addition, stands have an average of 3,082 TPA less than 5” DBH. Overall, canopy closure is 60%+. These areas are primarily even-aged lacking structural diversity.

3) **Oak Woodland**- Approximately 60 acres. Total tree densities (trees greater than 5” DRC) range from 44-47 TPA. In addition, stands have an average of 4,146 TPA less than 5” DRC. Overall, canopy closure is less than 40%. These areas are primarily even-aged lacking structural diversity.

The existing condition for all of the dominant forest types on both RDs is deficient of trees greater than 16” DBH and DRC (based on stand exam data). This project does not propose to cut any trees over this diameter in order to move the area toward the desired condition.

**Desired Condition:**

Desired vegetation conditions for the entire project area is one that reduces the potential for active crown fires and provides for public and emergency personnel safety in the event of a wildfire.

**Ponderosa Pine and Pinyon/Juniper Woodlands:**

Within the ponderosa pine and pinyon/juniper (P/J) forest types the desired condition would be to provide goshawk habitat that is consistent with the northern goshawk guidelines (LMP, page 71-5; *Management Recommendations for the Northern Goshawk in the Southwestern United States, General Technical Report RM-217. 1992*). Overall the desired conditions include:
• managing for uneven-age stand conditions for live trees to include tree groups and openings
• retaining live reserve trees, snags (2/acre), large downed logs (3/acre), and woody debris levels (5-7 tons/acre) throughout woodland, ponderosa pine, mixed conifer and spruce-fir forest cover types
• managing for old age trees such that as much old forest structure as possible is sustained over time across the landscape
• sustaining a mosaic of vegetation densities, age classes, canopy gaps and species composition across the landscape
• maintaining a range of Vegetation Structural Stages (“VSS”, or growth stages of living trees) - treatments would strive to achieve, over time, a VSS distribution of 10% VSS 1 (grasses, forbs, and shrubs); 10% VSS 2 (seedlings and saplings); 20% VSS 3 (young forest); 20% VSS 4 (mid-aged forest); 20% VSS 5 (mature forest); and 20% VSS 6 (old forest) across the landscape.
• within Goshawk Post Fledgling Family areas (PFAs) and dispersal PFAs residual trees per acre (TPA) and canopy cover would be slightly higher due to habitat needs compared to Foraging areas (lands outside PFAs).
• Nest areas would consist of a minimum 30-40 TPA in a size class distribution of VSS 5 and/or 6.
• On 20% of the 3,900 ponderosa pine acres (approximately 780 acres) and 20% of 2,600 P/J acres (approximately 520 acres) the desired condition will be to develop and maintain old growth conditions as defined in the LMP Forest Wide Standards and Guidelines pg 66, Table “The Minimum Criteria for the Structural Attribute Used to Determine Old Growth” These areas would be designated during the environmental analysis process.
• Trees are in groups with interlocking crowns, typically 0.25 to 0.75 acres in size but ranging from a few trees to 2 acres. Scattered individual trees exist between groups. Residual spacing between groups would be irregular and would range from 40-80 feet with few, if any, trees in this “rooting zone”.

Temporary openings, for regeneration purposes, up to four acres with a maximum width of 200 feet exist on approximately 10% of the area. Three to five reserve trees per acre are maintained in these openings. Two large snags and three large logs per acre exist. Five to seven tons of woody debris is retained.

Figure 1 displays the arrangement of leave groups and rooting zones that would remain after treatment. Not shown are the temporary openings created for regeneration purposes.
Mixed Conifer

Within the mixed conifer forest type the desired condition would be to maintain the existing condition to meet threshold conditions for Mexican Spotted Owl (MSO) restricted habitat as stated in the LMP on page 71-2 to 71-3.

Oak Woodland

Within the oak woodland forest type the desired condition would be to develop and maintain a variety of wildlife habitat by having the area in the following seral stage: 1) 35% of the acreage in an early seral stage that would provide browse and forage, 2) 35 % in a mid seral stage that would provide browse, forage and cover and 3) 30% in a late seral stage that would provide mast, forage and cavities for cavity nesting birds.
Proposed Action:

The existing condition for both ponderosa pine and P/J woodland is deficient of trees greater than 16” diameter at breast height (DBH) and diameter at root collar (DRC). This project proposes to not cut any trees over this diameter to assist in moving the area to desired condition.

To move these stands toward the desired condition as described above; an uneven-aged (where trees are found in three or more distinct age classes, either intimately mixed or in small groups) silvicultural system would be used. Specifically, a “Group Selection” treatment (where trees are removed and new age classes are established in small groups; also, where regeneration, growth and yield are regulated in an aggregation of groups) would be implemented in all forest types except for the Oak Woodland and Mixed Conifer forest types:

Pinyon-Juniper Treatments
Establish groups of trees with interlocking crowns, typically 0.25 to 0.75 acres in size but ranging from a few trees to 2 acres. Spacing of groups will be irregular and openings between groups will vary from 40-80 feet with few, if any, trees in this area which is referred to as the “rooting zone”. Create temporary openings for regeneration purposes, up to four acres with a maximum width of 200 feet on approximately 10% of the area. Three to five reserve trees per acre are maintained in these openings. Locate temporary openings away from roads and trails to maintain visual corridors and provide wildlife security. This will create a forest structure as illustrated in figure 1 above.

Within groups designated trees would be thinned from below to a residual of 55 - 92 TPA on lands outside PFAs, 119-138 TPA in PFAs, and 60-100 TPA in Nesting Areas. All large alligator juniper is preferred for retention. Maintain the relative abundance of P/J within the groups so that one species is not favored above another for removal. For example if the area originally had 70% pinyon pine and 30% juniper, after thinning the same ratio would exist. Ponderosa pine, white fir, and Douglas fir occurring in pinyon-juniper woodlands would be maintained as groups or stringers as appropriate to meet wildlife habitat improvement objectives. On average at least two snags and 5-7 tons of down woody debris per acre (including large downed logs) would be retained.

Thinning would be accomplished by hand, with mechanized equipment and/or mastication. Commercial contracts and personal-use fuelwood permits would be offered to remove the wood.

Ponderosa Pine Treatments
Establish groups in the same manner as described in the P/J treatments section.

Within groups designated trees would be thinned from below to a residual of 73-110 TPA on lands outside PFAs, 119-138 TPA in PFAs, and a minimum of 30-40 TPA in Nesting Areas. All large alligator juniper is preferred for retention. On average at least two snags and 5-7 tons of down woody debris per acre (including 3 large logs per acre) would be retained.

Thinning would be accomplished by mechanized harvesting equipment, by hand and/or mastication. Commercial contracts and personal-use fuelwood permits would be offered to remove the wood.
Oak Woodland Treatments
Prescribed fire would be used exclusively in these areas to develop and maintain a variety of wildlife food and cover habitat by having the area in the following: 1) 35% of the acreage in an early seral stage that would provide browse and forage, 2) 35% in a mid seral stage that would provide browse, forage and cover and 3) 30% in a late seral stage that would provide mast, forage and cavities for cavity nesting birds.

Mixed Conifer Treatments
An analysis was conducted to determine if MSO threshold conditions existed at a District wide scale and it was determined that the District was deficient in these conditions. So therefore all existing tree densities and canopy cover would be maintained in mixed conifer areas within this project. Prescribed fire would be used exclusively in these areas to maintain 5-7 tons per acre fuel loading.

Areas Over 40% Slope
Dispersed throughout the project area is approximately 35 acres over 40% slope. These areas would not be treated mechanically and would be treated by hand as required by the Cibola LMP. Tree densities would be reduced by thinning designated trees on site and prescribe burning or exclusively by prescribe burning.

Slash Disposal
Activity fuel such as bole wood, slash, hand piles, and mastication grindings would be treated as needed to meet fuels reduction objectives through prescribed burning and/or pile burning when conditions allow for safe and effective burning. All prescribed burning would comply with NM State air quality regulations and will be approved through appropriate permitting processes.

Maintenance
Maintenance would be implemented when monitoring data shows that the area is beginning to exceed its threshold for desired condition. The treatment methods described above would continue to be used as needed to maintain the desired conditions. Prescribed fire would be the primary tool used to reduce tree densities and undesirable tree regeneration and promote grasses and forbs.

The following table describes proposed treatments to meet the desired condition for each Forest Type based on soil conditions, location and slope:
<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Cutting Methods</th>
<th>Tree Removal</th>
<th>Slash Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Satisfactory soils, less than 40% slope. Approximate acres by forest type:</td>
<td>Mechanical mastication</td>
<td>None where mastication occurs</td>
<td>Masticated material would be spread on site to a depth of 0”-4”, other cut material lopped and scattered or hand piled. Broadcast burning and/or pile burning when management prescription conditions are met.</td>
</tr>
<tr>
<td>ponderosa pine 1710 and P/J woodlands 1450</td>
<td>Chainsaws – contract or Forest Service Mechanized feller</td>
<td>Commercial fuelwood, service contracts and/or timber sale contracts. Where good access exists, material removed under permits for personal use firewood.</td>
<td></td>
</tr>
<tr>
<td>2 - Impaired soils with less than 40% slope and satisfactory soils with severe</td>
<td>Mechanical mastication</td>
<td>None where mastication occurs</td>
<td>Masticated material would be spread on site to a depth of 0”-4”, other cut material lopped and scattered or hand piled. Broadcast burning and/or pile burning when management prescription conditions are met.</td>
</tr>
<tr>
<td>erosion hazard rating. Approximate acres by forest type: ponderosa pine 2150</td>
<td>Chainsaws – contract or Forest Service Mechanized feller</td>
<td>Commercial fuelwood, service contracts and/or timber sale contracts. Personal use firewood removal along authorized roads - no cross country travel permitted.</td>
<td></td>
</tr>
<tr>
<td>and P/J woodlands 1110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 – Oak Woodland 1120 acres</td>
<td>None - these areas would be prescribe burned only</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>4 – All areas with greater than 40% slope. Approximate acres by forest type:</td>
<td>Only hand cutting with chainsaws. Some areas would not be cut, such as the</td>
<td>None</td>
<td>Cut material lopped and scattered or hand piled. Broadcast burning and/or pile burning when management prescription conditions are met.</td>
</tr>
<tr>
<td>ponderosa pine 5, P/J woodlands 15 and mixed conifer 15</td>
<td>mixed conifer acres.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 – Mixed conifer less than 40% slope set aside as threshold conditions for</td>
<td>None - these areas would be prescribe burned only</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Mexican Spotted Owl Restricted Habitat</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For location of treatment types as described in the table, refer to Isleta CFRP Fuels Reduction, Proposed Action Map 1, Treatment Types.

Receipts generated from the sale of the harvested material and fuelwood permits would be retained by the Forest Service under authority in the Knutson-Vandenbarg Act of 1930 (KV). These receipts would be used to pay contractors and/or Forest Service personnel within 1 to 2 years after the project is completed. The rehabilitation activities could include: 1) decommissioning of Non-system roads (unauthorized roads) within the project area by ripping compacted soils, installing erosion control features, seeding the impacted areas with native grasses and using slash to cover impacted corridors to 80% coverage, 2) rehabilitating cross country travel corridors by ripping compacted soils, installing erosion control features, seeding the impacted areas with native grasses and using slash to cover impacted corridors to 80% coverage, 3) hand piling slash where needed to provide for manageable prescribed fire conditions, 4) lopping and scattering slash not collected through fuelwood gathering to 24” maximum height, and 5) conducting thinning within the project area.
**Connected Actions:**
This project on the Sandia and Mountain RDs has been divided into three unique geographic areas: 1) David Canyon on the Sandia RD, 2) the Dog Head on the Mountainair RD, and 3) Northern Manzano on the Mountain RD. The rationale for recognizing the three unique geographic areas is to develop a defined implementation strategy for 1) mitigation for incidental take of migratory birds and 2) the designation of distinct haul zones, transportation routes and proposed actions for maintenance and decommissioning of roads.

**Migratory Bird Recommendations**
This project proposes to develop implementation phases for the three geographic areas mentioned above so that fuel reduction activities and wood product removal can occur while providing mitigation for the incidental take of migratory birds. The recommended Cibola NF Migratory Bird timing restriction for no management activity is from April 1st-July 31st. This timing restriction would be implemented annually on 2/3 of the project area, while on 1/3 activity would occur throughout the year.

Communities adjacent to this project area are heavily dependent on forest products gathered from the Cibola NF for subsistence and livelihood. Due to the high demand for personal use fuelwood and annual operating restrictions due to periods of shut down during weather and moisture, the Cibola NF recognizes there is a need to have areas for these communities to work in throughout the year. In these areas it is recognized that unintentional take of migratory birds could occur. To minimize and mitigate this unintentional take the Cibola NF proposes to divide each geographic area into three implementation phases. Mechanical management activities would occur annually only within one implementation phase for each geographic area.

For location of implementation phases as described above, refer to Isleta CFRP Fuels Reduction, Proposed Action Map 2, Implementation Phases.
Transportation and Wood Hauling
No new roads or temporary roads would be constructed for this project. All wood products generated from this project would be removed on Forest Service System roads or on existing Non-system roads and trails (unauthorized roads and trails created by users that are causing resource damage). The road decommissioning would be coordinated with the implementation phase approach described in the Migratory Bird Recommendation section above.

The transportation system for wood product removal has been separated into four haul zones: 1) David Canyon, 2) Dog Head, 3) Northern Manzano 1 and 4) Northern Manzano 2. The purpose of these haul zones is to clearly define primary routes and vehicle types permitted on these routes. For location of haul zones as described above, refer to Isleta CFRP Fuels Reduction, Proposed Action Map 3, Haul Zones.

David Canyon Haul Zone
All material removed from David Canyon would be hauled from the Sandia RD onto Raven Road to State Highway 337. Due to the width, condition and neighborhood location of Raven Road the Forest Service will only allow pickup trucks and pickup trucks with trailers to access the area to remove woody material. No log trucks or chip vans would access this area.

Dog Head Haul Zone
Due to existing conditions on Forest Road 260, log trucks and public access is limited into the Dog Head Haul Zone from the Northern Manzano Haul Zone. For this reason access to remove forest products would be hauled from the Dog Head through Chilili to State Highway 337. This would only occur through collaboration and agreement with the Chilili. The Cibola would work with Chilili in selecting a commercial logging company to access and remove the material. The selected contractor would be required to sign a road use agreement with Chilili prior to hauling. In addition to removing material commercially the Cibola would allow Chilili Land Grant members to access and remove forest products in the Dog Head through the purchase of Cibola permits.

Northern Manzano Haul Zone 1
Due to existing conditions on Forest Road 260 and the eastern portion of 321 this haul zone is set aside for public forest product gathering and removal. All Forest Service System roads and unauthorized roads in this haul zone would be accessed by the public with pickup trucks and pickup trucks with trailers. Road conditions in this area can provide for these vehicles however to access it with log trucks would be not be economical. For this reason access to remove forest products would be from Forest Road 260 and the east portion of Forest Road 321 to State Highway 55.

Northern Manzano Haul Zone 1
Due to existing conditions on Forest Road 55 and the western portion of 321 this haul zone is set aside for public forest product removal and commercial forest product removal. All forest products would be removed from Forest Service System Roads and existing unauthorized roads to Forest Road 321 and then to Forest Road 55 to State Highway 55.
**Heritage/Cultural Resources**

All proposed mechanical activities would avoid inventoried heritage resources and no disturbance of these resources would occur. Prescribe burning activities would avoid all inventoried heritage resources with structural attributes that could be compromised through fire.

**Goshawk**

The implementation of any of the proposed activities within northern goshawk PFAs and Nest Areas would occur from October 1st - February 28th.

Through the environmental analysis process a dispersal PFA will be designated based on LMP direction pg 71-7. No timing restriction would apply in this area however the desired condition for PFAs would be created within the dispersal area.