

DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT

HARRIS PARK
FUELS MANAGEMENT PROJECT

USDA Forest Service
Rocky Mountain Region
Pike and San Isabel National Forests and Cimarron and Comanche National Grasslands
South Platte Ranger District
Jefferson and Park Counties, Colorado

INTRODUCTION

The United States Department of Agriculture, Forest Service (USFS) prepared an Environmental Assessment (EA) for the Harris Park Fuels Management Project that was released for public review in April 2005. The EA described the potential environmental effects of the proposed action and a no action alternative for fuels management and associated activities in the Harris Park project area. I have reviewed the EA and related material, including the project file, and base my decision on that review. This document reports my decision and the reasons I have made this decision, lists the alternatives considered, describes the public involvement process, contains the Finding of No Significant Impact, makes findings required by other laws and regulations, describes administrative review or appeal opportunities, sets an implementation date, and provides contact information for further information about this document and project.

Background

The project area is located north of Bailey and west of Pine Junction, in Park and Jefferson Counties, Colorado. The project area contains 26,302 acres of National Forest System lands and several private land inholdings. However, this decision does not determine activities on private land.

Forest conditions in the western U.S. are currently much different from previous centuries. The density of trees is much greater than what existed historically (pre-European settlement of the 19th century). Because of past fire management practices, ground and ladder fuels have increased to the point that surface fires can easily move into the tree canopy, fueling destructive crown fires. The higher-density, continuous fuels present in many forests allow fires to spread quickly over large distances, making control difficult and dangerous. In one day, the wind-driven 1996 Buffalo Creek fire traveled 10 miles and the 2002 Hayman fire traveled 19 miles.

The 2002 Snaking and Black Mountain fires occurred in the project area in similar fuel types (ponderosa pine and lodgepole pine, respectively) to those that would be treated by the proposed project. These two

fires burned 2,500 acres, threatened 2,700 homes, and briefly closed Highway 285. The total cost for suppression of the two fires was \$3.9 million.

The Buffalo Creek, Hi Meadow, Schoonover, and Hayman fires also occurred on the Pike and San Isabel National Forests and Cimarron and Comanche National Grasslands (PSICC) and indicate the potential for high-intensity fires in the project area, although these fires primarily burned in ponderosa pine and Douglas-fir forests, not in lodgepole pine or other high-elevation forests. In addition to destroying homes and property, these fires destroyed federal and state facilities, such as campgrounds and trails, and damaged municipal water systems and water holding facilities in the South Platte River watershed. Municipal water was degraded for days and has been threatened by subsequent rain events in the former burn area. Loss of vegetation and ground cover has caused increased soil erosion and loss of vegetation productivity. Fisheries and aesthetic values were also degraded. Wildlife habitat, forest products, and recreational opportunities were lost. Flash floods originating in these burned areas caused loss of human life, destroyed homes, bridges, highways, and other facilities. Air quality along the Front Range of Colorado, with its 3.5 million residents, was dangerously degraded for days at a time, adversely affecting people whose health was already at risk.

The economic effects of these fires were staggering. The Hayman Fire alone cost more than \$38 million to suppress and more than \$15 million for just the initial emergency rehabilitation measures. During the 2002 fire season, more than 10,000 residents were evacuated from their homes, sometimes for weeks. Tourism and other businesses lost millions of dollars because of Forest closures and other effects of these large fires.

Dense forest conditions cause trees and other vegetation to compete for limited water and nutrients, particularly during drought periods such as Colorado has experienced in recent years. Competition for water and nutrients can reduce forest health, increasing the potential for outbreaks of insects and diseases, which can kill large areas of trees and increase fuel loads, increasing the potential for uncontrollable wildland fires. Several disease and insect infestations, including dwarf mistletoe, mountain pine beetle, Ips beetle, Douglas-fir tussock moth, western gall rust, and spruce budworm have affected forests in the project area in the past. Reducing the potential for outbreaks of insects and disease by improving forest health is important to reducing the size, intensity, and hazards associated with future wildfires.

Under current conditions, the Harris Park project area is at risk for a high-intensity wildland fire. There were 1,123 fires on the South Platte Ranger District between 1974 and 2003, some of which were within the project area. Dense forests and heavy fuel loads increase the potential for lightning or human-caused fires to grow rapidly to uncontrollable size during severe weather conditions.

Development, population, and recreational use have also increased in the project area. There are hundreds of homes on private land adjacent to the project area. The project area is located primarily in Park County with a small section in Jefferson County. Park County has a population of 15,000 and Jefferson County has 529,000 residents, although only a few hundred of these live near the project area. The Denver metropolitan area, with a population of several million residents, is less than 30 miles away.

DECISION

I have decided to select Alternative 1 (the proposed action), with modifications, for implementation. This decision modifies the selected alternative from that described in the EA. The extent of the proposed treatments has been reduced in response to public comments received during the public comment period for the EA and to reduce the potential effects of the project on Canada lynx habitat. Several project design standards, mitigation measures, and monitoring tasks have been clarified or added in response to comments received during the public comment period for the EA. I made this decision following review

of the EA, supporting materials referenced by the EA, additional information contained in the project file, and responses to public comments in **Appendix A**. These modifications do not change the findings or effects of the selected alternative disclosed in the EA.

Description of the Selected Alternative

Alternative 1 includes two primary components, mechanical and prescribed fire fuel treatments, described below. Potential changes to the transportation system and stewardship projects that are part of this alternative are also discussed below.

Beyond the general mechanical and prescribed fire treatments described below, specific treatments will be applied to stands depending on the mix of dominant and other tree species that are present. The specific stand treatments are described in detail in the EA. **Table 1** summarizes the extent of the each of the specific treatment types, which will include a combination of mechanical and prescribed fire treatments. The extent of treatments shown in **Table 1** represents a reduction of 1,627 acres from the proposed action as described in the EA. This reduction is based on several factors. First, many commenters were concerned about treatments in inventoried roadless area (IRAs). Therefore, all treatments in IRAs more than 1,000 feet from private lands were removed from the proposed action. Second, the U.S. Fish and Wildlife Service was concerned about the potential effects of the project on Canada lynx. Therefore, stands with a spruce/fir component and existing regeneration units more than 1,000 feet from private lands were removed from the proposed action. Both spruce/fir stands and regeneration units contain structural components that are preferred foraging habitat for snowshoe hare, a primary lynx prey species. **Figure 1** shows the treatments that will be implemented under the modified proposed action.

Table 1 Summary of Treatments – Alternative 1

Treatment Type	Extent (acres)	Proportion of Project Area (percent)
Treatments 1A and 1B (1,000-foot Buffer from Private Lands)	2,157	8
Treatments 1C and 1D (1,000-foot Buffer from Private Lands)	2,049	8
Treatment 2 (Aspen, Grasslands, Meadow, and Riparian Fuel Breaks)	987	4
Treatment 3 (Stands with a Dominant or Remnant Ponderosa Pine Component)	3,993	15
Treatment 4A (Stands Dominated by Aspen with a Douglas-fir, Engelmann Spruce, Lodgepole Pine, or Subalpine Fir Component)	291	1
Treatment 4B (Stands Dominated by Douglas-fir, Engelmann Spruce, Lodgepole Pine, or Subalpine Fir with an Aspen Component)	1,385	5
Treatment 5 (Steep Slope Fuel Breaks)	312	1
Treatment 6 (Stands Dominated by Douglas-fir, Engelmann Spruce, Lodgepole Pine, or Subalpine Fir without an Aspen Component)	635	2
Treatment 7 (Past Wildland Fire Areas)	1,928	7
Treatment Total*	9,531	36
No Treatment	16,771	64

* Treatments 1A, 1B, 1C, and 1D are not included in project totals because they overlap with treatments 2 through 7.

Natural variation exists in each stand; therefore, the exact prescription for each stand will be developed during project implementation. Adaptive management will be used to develop stand prescriptions during implementation based on actual site conditions. Stand conditions created by these treatments may be maintained by the use of prescribed fire, thinning, or other mechanical treatments every 10 to 30 years, as needed. Prescribed burning for maintenance will be focused on created openings and ponderosa pine stands to replicate a more natural fire regime, but may also be used in other situations.

Treatments are expected to begin in 2006 and take at least five years to implement, depending on the availability of funding and other factors. Commercial sale of forest products, non-commercial mechanical treatments, service or stewardship contracts, and public fuelwood areas would be offered beginning in 2006. Prescribed burning would follow the mechanical treatments and continue for an indefinite period, again depending on availability of funding.

Mechanical Treatments

Approximately 9,531 acres of forested stands (36 percent of the project area) will be mechanically thinned or thinned by hand to reduce stem density, basal area, canopy continuity, and ladder fuels. The remaining 16,771 acres (64 percent) of the project area will not be treated. The removal of smaller, suppressed, and intermediate trees will be a priority, while the oldest and largest trees in the stand will generally be retained. Some co-dominant trees may be removed to reduce canopy density. Some smaller trees with good crowns will be retained to provide for a diversity of age and size class distributions in the remaining stands and to provide cover for lynx, snowshoe hare, and other lynx prey.

A combination of commercial and non-commercial methods will be used to dispose of cut trees and slash in thinned areas. In some areas, logs of commercial size will be produced, although production of commercial products is not the purpose of this project. Commercial removal of material will only be done to reduce fuel treatment costs where, or if, feasible. No timber harvest will occur in IRAs. Tractor or other ground-based yarding systems will be used to move logs to landings. No helicopter or cable yarding is anticipated.

Commercial and personal-use fuelwood sales will also be used to accomplish thinning and to remove material. Fuelwood areas will be concentrated near existing roads to allow access for fuelwood cutters. Fuelwood cutting will involve a permit system that will specify cutting locations, species and size classes allowed for cutting, slash treatment requirements, and other measures needed to thin stands effectively, reduce fuel loads, and minimize environmental effects.

A number of regeneration harvests have occurred in the past in the project area. Activities in these stands will be avoided to maintain preferred snowshoe hare habitat characteristics. An exception will be made for the two regeneration units within the boundaries of the Black Mountain Fire, where Treatment 7 will be implemented. This treatment will not affect snowshoe hare habitat because the fire destroyed the regenerating conifers that provide hare habitat.

Slash from all thinning units will be treated by lopping and scattering, crushing, piling and burning, broadcast burning, chipping, or other methods. Piling may be done by tractors where feasible and by hand on steeper slopes and other areas that are not accessible to tractors. Slash may also be piled at landings for later disposal. Where slash is chipped, chips may be spread across the treatment unit or removed from the area.

Where possible, small trees that are of Christmas tree size and character, as well as seedlings and saplings that may grow into Christmas trees, will be left in some treatment units. Future Christmas tree removal will be promoted. During implementation of the project, any opportunities that arise for product removal

will be examined for their potential to reduce fuels. These may include, but are not limited to, commercial and personal-use Christmas tree sales, sale of mulch, and free use permits.

Prescribed Fire Treatments

Prescribed fire will be used on up to 9,531 acres (36 percent of the project area), including most areas that have been treated mechanically or by hand, to reduce litter and duff layers, slash produced by treatments, surface fuels, regeneration, and ladder fuels. It will also be used to create small openings. The exact treatments to be used and their locations will be determined after treatments are completed, depending on the level of natural and activity fuels in each stand. Before any prescribed burning takes place, detailed burn plans that address site-specific details will be completed and approved.

Prescribed fire treatments will include hand piling and burning, mechanical piling and burning, and broadcast burning. In some areas, a combination of different treatments will be used, depending on fuel loads, accessibility, and concerns for protecting private property. For example, in areas where little slash is created or existing ground fuels are not heavy, slash generated by thinning may be lopped and scattered, then broadcast burning will be used to reduce fuels. In areas of heavy ground fuels or heavy slash creation, slash may be piled mechanically and the piles burned, except on steep slopes where hand piling will be used instead of mechanical piling. Burning will not generally be conducted in mechanical treatment areas until after the completion of non-commercial thinning, commercial sales, service contracts, and public fuelwood use.

Pile burning alone will be used in areas of fuel accumulation where broadcast burning is not appropriate. A combination of pile and broadcast burning will be used where necessary to maintain control. Broadcast burning may be used in areas that are not treated mechanically but where some fuel reduction is desired, such as along meadow edges to reduce conifer encroachment.

Transportation System

Existing National Forest System Roads (NFSRs) will provide the primary access to the project area. There are 31 miles of NFSRs within the project area. No new NFSRs will be constructed. NFSRs used for the project will be maintained or reconstructed as needed to accommodate safety or environmental considerations.

Up to 30 miles of new temporary roads will be needed to access treatment units. Temporary roads will be constructed to the minimum standard needed for safe and efficient use by project equipment, which may include vegetation clearing and minor earth movement. No temporary roads will be constructed in IRAs. Temporary roads will be constructed immediately before access is needed for a particular treatment area, and then closed and obliterated as soon as possible after treatment is complete. Public use of these roads will be restricted. Temporary road construction and obliteration will be phased throughout the life of the project to minimize the extent of open temporary roads. No more than 10 miles of temporary roads will be open at any time during project implementation. Closed roads will be thoroughly obliterated using physical barriers to prevent future use by motorized vehicles.

Access for proposed treatments in several portions of the project area will be across private lands where there is no current right-of-way. Treatment in these areas will depend on successful negotiation of access between the USFS and willing private landowners. If access agreements cannot be developed with private landowners, some areas will not be treated.

Stewardship Projects

Public Law 108-7 provides the USFS with the opportunity to enter into stewardship contracts to achieve agency land management objectives and meet community needs. It is anticipated that stewardship contracts will be used to implement a substantial portion of the mechanical treatments, as well as slash treatment, changes to the transportation system, recreational area improvements, wildlife habitat improvements, and other projects.

Appropriate stewardship work in the project area may include:

- Road and trail maintenance or obliteration to restore or maintain water quality;
- Improving soil productivity, habitat for wildlife and fisheries, or other resource values; and
- Removing vegetation or other activities to promote healthy forest stands, reduce fire hazards, or achieve other land management objectives.

Project Design Standards

This section repeats all of the project design standards from the EA and contains all of the modifications and additions made in the response to comments in **Appendix A**. These measures replace those in the EA for the purposes of project design and implementation.

Riparian Areas, Wetlands, and Floodplains

- All treatments near riparian areas will follow the most current version of Forest Service Handbook (FSH) 2509.25, Watershed Conservation Practices Handbook (WCPH), to minimize effects to riparian habitats.

Small Mammals

- Project design and implementation will follow PSICC Land and Resource Management Plan (Forest Plan) (USFS 1984) standard 6022 (page III-13), which relates to retention of coarse woody debris.

Snag Dependent Species

- Project design and implementation will follow Forest Plan standards that relate to snag dependent species, specifically 6010PI (page III-12), 0405 (page III-12), and 6011PI (page III-13).

Treatment Operations

- Defensible space will be created around the Camp Rosalie facilities according to Colorado State Forest Service (CSFS) guidelines. In surrounding stands that are part of Treatment 6, as described above, lodgepole pine will be thinned from below, leaving dominant and co-dominant lodgepole and favoring aspen regeneration.
- The landscape is deficient in old-growth forests. Stands that meet old growth characteristics and any trees identifiable as being over 150 years old will be retained to help achieve future old-growth conditions. Larger trees will generally be retained throughout the treatment areas, but some larger trees will be cut. The residual stand will be kept on a trajectory to achieve an old-growth condition.
- In general, blue spruce, bristlecone pine, and limber pine will not be cut, except where their removal is needed to meet the objectives of a particular treatment. Aspen and ponderosa pine will be favored for retention. Douglas-fir, Engelmann spruce, lodgepole pine, and subalpine fir will be favored for removal.

- South and west slopes will be favored for openings to increase the amount of shrublands. Openings will also be created near private lands and other fire strategic locations to increase areas of aspen or shrublands and to remove pockets of disease- or insect-infected trees. Typically, openings will not exceed one acre, and no openings greater than 10 acres will be created.
- Treatments will only remove hazard trees that actually pose a safety hazard, especially on roads that will be open (seasonally or year-long) to the public and in treatment units. Treatments will maintain dead and dying trees adjacent to roads that are closed to vehicular access.
- Pre-treatment monitoring surveys will be conducted for each treatment unit. If sensitive sites are found, such as bird nests, Abert's squirrel nesting or feeding areas, special aquatic sites, unique wildlife habitats, or rare plants, additional mitigation measures may be implemented to help protect these sites.
- Where slash is treated by chipping and chips are not removed from the unit, chips will be spread over no more than 25 percent of the unit to an average depth of no more than two inches.
- Temporary roads will not be constructed in IRAs.
- Roads constructed for temporary access into a treatment unit will be guided by the principles of temporary road construction. In general, these roads are short and used where the topography and drainage requirements are minimal and the potential effects to other resources are low.
- Temporary roads will only be constructed immediately before they are needed to access particular treatment units.
- Public motorized use of temporary roads will be prohibited at all times by a Forest Order and the use of gates or other closure devices.
- Temporary roads serve no long-term need; therefore, they will be closed by the purchaser, contractor, or USFS after use. Temporary roads will be closed upon final completion of the project or when no longer needed.
- No more than 10 miles of temporary roads will be open in the project area at any one time during project implementation.
- Unless waived in writing by the USFS, operational restrictions will include the following:
 - No cutting or chipping activities will be allowed within 1,000 feet of recreational facilities on weekends from 5 PM on Friday until midnight on Sunday or 5 PM preceding a state or federal holiday to midnight of the actual holiday.
 - No hauling of logs from the project area will be allowed on weekends from 5 PM on Friday until midnight on Sunday or 5 PM preceding a state or federal holiday to midnight of the actual holiday.
 - Treatments directly within or closely adjacent to designated campgrounds, summer camps, trails, trailheads, and summer home groups will be avoided between Memorial Day and Labor Day.

Wildlife

- Project design and implementation will follow Forest Plan standards and guidelines that relate to wildlife, specifically 6003PI (page III-29), 6004PI (page III-29); 6188 and 6289 (page III-32); 6312 and 6660 (page III-33); 6183 (page III-110); 6186 (page III-119); 6261, 6117, 6168, and 6179 (page III-152); and 6191, 6334, 6171, and 6261 (page III-153).

Mitigation

This section repeats all of the mitigation measures from the EA and contains all of the modifications and additions made in the response to comments in **Appendix A**. These measures replace those in the EA for the purposes of project design and implementation.

Air Quality

- All prescribed burning will be conducted in a manner that complies with State of Colorado's permit process for burns.

Cultural Resources

- If any cultural resource sites are found during implementation, project activities will stop and the archeologist will be contacted immediately. The archeologist will evaluate the site and determine future actions.

Noxious Weeds

- Proposed treatment areas and temporary road locations will be surveyed for noxious weeds.
- Chemical, biological, cultural, and mechanical techniques will be used as appropriate to minimize the spread of noxious weeds. All treatments of noxious weeds will follow state and federal regulations.
- Disturbed areas, such as roads, landings, and skid trails, will be revegetated using the South Platte Ranger District seed mixes for the elevation zones in the project area. If commercially available, native species will be used in all seed mixes.
- The contractor/purchaser will be required to clean all equipment that operates off road before the first entry into the project area.

Public Safety

- Project travel routes open to public use will be signed to warn the public of project traffic or other potential hazards (such as prescribed fire). Where public safety cannot be reasonably ensured, roads may be temporarily closed to public use.
- The public will be notified in accordance with state air quality regulations before prescribed burning activities.
- Treatments will not be implemented within 200 yards of campgrounds and summer camps when the public is present.
- Prescribed fire treatments, including pile burning and broadcast burning, will not be implemented within less than one mile of Camp Rosalie when children are present. In addition, prescribed fire treatments will not be implemented when smoke will substantially affect Camp Rosalie if children are present.

Recreation

- The Meridian and Deer Creek trailheads will not be closed at the same time during project activities.
- Closures of existing NFSRs will be planned to avoid weekends or holidays, except as necessary to protect public safety.

Sensitive Species

- Sensitive species located in or near treatment areas, before or during project implementation, should be appropriately managed by active coordination among permittee, contractor or purchaser, Forest Service line officer, project administrator, and biologist. Project implementation may be modified as necessary to minimize or avoid effects to sensitive species discovered in the project area.

Watersheds

- Appropriate standards and design criteria from the Rocky Mountain Region (R2) Watershed Conservation Practices Handbook (FSH 2509.25) and project specific required mitigation from the Forest Plan will be applied to project activities to protect hydrologic function, riparian areas, soil productivity, and water purity, and to control sediment.
- All crossings of the Water Influence Zone (WIZ), as defined in the WCPH, will take place at designated locations. The number of designated crossings and the extent of disturbance in the WIZ from these crossings will be minimized. Crossings will be maintained to prevent erosion and immediately reclaimed after work is completed.
- Ash piles at landings where large slash piles are burned will be ripped or otherwise scarified and seeded.

Wildlife

- Potential goshawk nesting habitat will be surveyed before treatment operations.
- No treatment activities will occur within a 650-foot buffer surrounding active northern goshawk nest sites.
- No treatment activities will occur within a 2,500-foot buffer surrounding active northern goshawk nests during the post-fledgling period (March 1 thru September 30).
- Management at northern goshawk nest sites will be designed to conserve or enhance site conditions (for example, thin regeneration).
- Silvicultural prescriptions and management activities will be designed to enhance prey species habitat by maintaining vegetative diversity and striving for a balance of structural stages, from stand initiation to late successional, in northern goshawk post-fledgling habitat.
- Buffers and timing restrictions will be applied as necessary to minimize disturbance of raptors nesting in or near treatment areas.
- To minimize adverse effects to Abert's squirrels in Management Area (MA) 2A, site-specific surveys will be conducted in mature (habitat structural stage [HSS] 4B) ponderosa pine stands before project implementation. Treatments will be modified as necessary to minimize the potential for the project to cause a declining trend in the local population.
- Wetlands that provide potential habitat for boreal toads will be avoided by all mechanical treatments and prescribed burning. No roads or other designated crossings of the WIZ will be located in these wetlands.

Monitoring

This section repeats all of the monitoring activities from the EA and contains all of the modifications and additions made in the response to comments in **Appendix A**. These activities replace those in the EA for the purposes of project monitoring.

Noxious Weeds

- Treated areas and access roads will be monitored for noxious weeds for at least two years after project completion.

Roads

- Treatment units, and especially closed temporary roads in treatment units, will be monitored for off-road vehicle (ORV) use. Additional measures will be developed or used to restrict ORV use and prevent resource damage if high ORV use or resource damage caused by ORVs is observed.

Vegetation/Fuels

- Post-treatment stand characteristics, such as overstory density, regeneration density, crown base height HSS distribution, and fuel loads, will be monitored to ensure that the stand prescriptions and the purpose and need for the project have been met.

Watersheds

- All roads used for project activities, including existing system roads and temporary roads, will be monitored to ensure that no adverse soil erosion or other watershed effects are occurring.

REASONS FOR MY DECISION

I considered several different questions in determining which alternative or combination of treatments best supports the project objectives. These questions include:

- Do the alternatives and treatments implement the Forest Plan?
- Do the alternatives and treatments comply with other management initiatives and policies?
- Do the alternatives and treatments meet the purpose of and need for action?
- Are the alternatives and treatments supported by the best available science?
- Do the alternatives and treatments respond to the key issues?
- Do the alternatives and treatments respond to the substantive comments on the EA?

In answering each of these questions, I reviewed the analysis and conclusions in the EA, supporting materials referenced by the EA, and additional information contained in the project file and response to public comments.

Implementation of the Forest Plan

The Forest Plan contains a list of goals (pages III-3 through III-6) that describe a desired future condition for the PSICC, including the project area. Several of these goals are relevant to this project, including:

- Provide a broad spectrum of developed and dispersed recreation opportunities in accordance with identified needs and demands.
- Increase diversity for wildlife and habitat improvement.
- Practice vegetation management to provide multiple benefits using a comprehensive timber management program as a tool.
- Improve age class and species distribution of tree stands forest-wide.

- Perpetuate the aspen type.
- Improve the health and vigor of all vegetation types.
- Maintain air quality compatible with state and federal laws.
- Conserve water and soil resources and prevent significant or permanent impairment of land productivity.
- Provide a cost-effective level of fire protection to minimize the combined costs of protection and damages, and prevent loss of human life.

The Forest Plan designates five MAs in the project area: MA 2A (emphasis on semi-primitive motorized recreation), MA 2B (emphasis on rural and roaded-natural recreation), MA 5B (emphasis on big game winter range), MA 7D (emphasis on wood fiber production and utilization for products other than saw timber), and MA 9A (emphasis on riparian area management).

I considered whether each of these goals and their associated MA direction would be met by the activities proposed under each alternative. Alternative 1 with modifications will reduce fuels, increase vegetation and wildlife habitat diversity, improve forest health, protect water and soil resources, provide a range of recreation opportunities, maintain air quality, and improve public and firefighter safety while reducing the risk to public and private property. Therefore, I conclude that Alternative 1 with modifications will appropriately implement the Forest Plan. Alternative 2 would not contribute towards implementation of the Forest Plan because fuels would not be reduced, vegetation and wildlife habitat diversity would not be increased, forest health would not be improved, public and firefighter safety would not be improved, and the risk to public and private property would not be reduced.

Other Initiatives and Policies

The National Fire Plan (NFP) identifies the areas around Harris Park as wildland-urban interface communities at risk from large-scale wildfire (USFS et al. 2001). In addition, the Upper South Platte River watershed, which includes the project area, provides a substantial proportion of the water supply for the Denver metropolitan area. The NFP identifies two objectives that will be specifically addressed by the proposed action:

- “Assign highest priority for hazardous fuels reduction to communities at risk and readily accessible municipal watersheds.”
- “Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically intense fires on a priority watershed basis. Methods will include removal of excessive vegetation and dead fuels through thinning, prescribed fire, and other treatment methods.”

By selecting Alternative 1 with modifications, I have chosen a set of activities that will conduct fuel reduction treatments near communities at risk and in municipal watersheds. These treatments will also reduce the risk of large-scale wildland fires and shift the structure and composition of some forested stands in the project area back towards their historical conditions. The health, diversity, and resilience to disturbance of the treated stands will be improved.

Alternative 1 with modifications will contribute to the goals of the Front Range Fuels Treatment Partnership. This partnership is a cooperative effort of the USFS, National Park Service, Bureau of Land Management (BLM), and the CSFS and is designed to address fire and fuels management issues at a landscape scale across public and private land boundaries along Colorado’s Front Range. Once

completed, this project will work in conjunction with other nearby projects to reduce fuels and the risk of wildland fire on a landscape scale.

Several of these nearby projects are part of the 285 Conifer-Bailey Fuels Management Initiative, which is designed to address fire hazards across agency boundaries along the Highway 285 corridor. Partner agencies include the PSICC, CSFS, Platte Canyon and Elk Creek Fire Protection Districts, BLM, and Jefferson and Park Counties. Alternative 1 with modifications will address a portion of this area, and will be implemented as a collaborative effort between the CSFS, the Platte Canyon Fire Protection District, and the PSICC. It will complement similar fuels projects currently being conducted or developed on nearby private lands, at Staunton State Park, and on the Arapaho-Roosevelt National Forest.

I did not select Alternative 2 because it would not conduct fuel reduction treatments near communities at risk and in municipal watersheds. It would not reduce the risk of large-scale wildland fires. The current condition of forested stands in the project area would remain substantially different from historical conditions. The health, diversity, and resilience of forested stands to disturbance would not be improved. In addition, Alternative 2 would not contribute to the goals of the Front Range Fuels Treatment Partnership or 285 Conifer-Bailey Fuels Management Initiative. By leaving the project area untreated, this alternative would work against other nearby projects that seek to reduce fuels and fire risk at a landscape scale.

Purpose and Need

The purpose of the Harris Park Fuels Management Project is to create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions. The need for the proposed project is driven by forest conditions. Historic fire suppression has created forests that are more susceptible to a large-scale, high-intensity wildfire. The proposed project is needed to reduce the risk, intensity, and hazards associated with a high-intensity wildland fire near the Harris Park community; improve forest health; and enhance ecological diversity in the project area.

I have selected Alternative 1 with modifications because it provides the best means to meet the purpose of and need for the project. The mechanical and prescribed fire treatments will reduce fuel accumulations that have developed because of fire suppression and other past management activities. Forest health will be improved, reducing the potential for outbreaks of insects and diseases. The extent of future fires will be reduced and, more importantly, the potential for dangerous, high-intensity fire behavior, such as active crown fire, will be dramatically reduced. The beneficial effects of these treatments are expected to last at least 20 years and will facilitate lower impact and lower cost maintenance treatments in the future. By reducing fire size and intensity, the selected alternative will improve the efficiency of fire suppression actions, reducing the threat to the public and firefighters, private property, municipal watersheds, recreational facilities, fish and wildlife habitats, scenic values, air quality, and other resources.

In contrast, Alternative 2 would defer treatments and would not meet the purpose of and need for the project. Fuels would not be reduced, but would continue to increase over time. The potential for large-scale, high-intensity wildland fires would not be reduced and may increase over time. The risk to life, property, and resources would not be reduced. Forest health and sustainable forest conditions would not be improved.

Science

The selected treatments can be divided into three types: (1) those designed to restore historic vegetation patterns and fire regimes (for example, in ponderosa pine stands); (2) those designed to reduce potential

fire behavior by reducing fuels and breaking up fuel continuity (for example, in lodgepole pine stands); and (3) those designed to link other treated stands into strategic fuel breaks across the landscape (for example, in aspen stands). The scientific basis for each of these treatments is discussed below.

Restoration of Historic Vegetation Patterns and Fire Regimes

The desired future condition for ponderosa pine and other warm/dry site conifers in the project area is based on scientific studies of the historical landscape condition in the ponderosa pine zone along Colorado's Front Range. Since 1995, several researchers have studied historical landscape conditions on Denver Water's Cheesman Lake property, which is 20 miles southeast of the project area in the same vegetation zone (for example, Brown et al. 1999, Huckaby et al. 2000; Kaufmann et al. 2000a; Kaufmann et al. 2000b). They have shown that the historical ponderosa pine forest was less dense, more open, and less vulnerable to large-scale fires than the current condition (Kaufmann et al. 2000b). The historical fire behavior in this area followed a mixed-severity fire regime characterized by a combination of surface fire and patchy crown fire (Brown et al. 1999).

Past logging, grazing, tree planting, and fire suppression have substantially increased the current forest density and amount of Douglas-fir and other small trees that act as a ladder fuels (Foster Wheeler 1999). As a result, current forest conditions favor a crown fire regime, with a high risk of large-scale stand-replacing fire (Graham et al. 2004). These high-severity fires are more apt to have detrimental effects on soils, watersheds, wildlife habitat, and other resources. Because conditions are well outside the historic range of variability, managers must conduct treatments to break up the dense, continuous forest (Graham et al. 2004). Because openings are an important and transient part of the landscape, removing dense, young trees and retaining old trees will do much to restore the ecosystem and at the same time reduce wildfire risk (Kaufmann et al. 2000b). Such restoration is compatible with reduction of risk of large-scale fire and insect outbreak. Creating a more open forest will create a more grassy understory that will burn at lower intensity; increase tree, shrub, and grass survival; and reduce soil erosion. Some of the treatments in Alternative 1 with modifications were designed to move forest conditions in ponderosa pine stands back towards the historical range of variability described by Kaufmann and other (2000a). By using mechanical and prescribed fire treatments to reduce stand density, remove ladder fuels, and create openings, the selected alternative will begin to restore the historical landscape in portions of the project area.

Alternative 2, by deferring treatment in the project area, would maintain current forest and fuels conditions outside the historic range of variability. Without treatment, the current condition would favor a crown fire regime, with a high risk of large-scale stand-replacing fire and subsequent risks to lives, property, and resources. As such, selection of this alternative would not adhere to the best available science with regard to restoration of historic vegetation patterns and fire regimes.

Reduction of Potential Fire Behavior

The desired future condition for lodgepole pine and other cool/dry to moist site conifers in the project area is based on scientific studies that show how modifications to fuel characteristics can influence fire behavior. Restoration of historic vegetation patterns and fire regimes is not supported in these areas because they are generally within their historic range of variability (Veblen 2003). Infrequent, high-severity (stand-replacing) crown fires are typical of these areas (Anderson 2003, Foster Wheeler 1999).

The most effective strategy for reducing crown fire occurrence and severity is to (1) reduce surface fuels, (2) increase height to live crown, (3) reduce canopy bulk density, and (4) reduce continuity of the forest canopy. Fuel management in forested stands can target specific fuel strata and disrupt the vertical

progression of fire from surface fuels to ladder fuels to canopy fuels, and the horizontal progression of fire through individual fuel strata, especially from crown to crown (Graham et al. 2004).

The beneficial effects of prescribed fire on fuel structure and wildfire behavior and effects have long been observed and reported (Graham et al. 2004). Prescribed fire is a useful tool that can effectively alter potential fire behavior by influencing multiple fuel bed characteristics, including reducing loading of surface and ladder fuels, reducing horizontal fuel continuity, and increasing compactness of surface fuel components. Mechanical thinning, especially emphasizing smaller trees and shrubs, can reduce the vertical fuel continuity that fosters initiation of crown fires. In addition, thinning and pruning branches are more precise methods than prescribed fire for targeting ladder fuels. The most appropriate fuel treatment strategy is often thinning (removing ladder fuels and decreasing tree crown density) followed by prescribed fire, piling and burning of fuels, or other mechanical treatments that reduce surface fuel amounts. This approach reduces canopy, ladder, and surface fuels, thereby reducing both the intensity and severity of potential wildfires. In forests that have not experienced fire for many decades, multiple fuel treatments are often required to achieve the desired fuel conditions. Thinning followed by prescribed burning reduces canopy, ladder, and surface fuels, thereby providing maximum protection from severe fires in the future (Graham et al. 2004).

Proposed treatment activities in these areas would reduce surface fuels, basal area, canopy cover, canopy bulk density, and ladder fuels, while raising crown base height. Each of these changes would alter potential fire behavior in treated areas. By opening up stands and removing dense fuel accumulations, fires burning in these areas are more likely to remain as surface fires and less likely to cause torching or crown fire (Graham et al. 2004). In addition, fire behavior in untreated areas would be reduced once it ran into treated stands. For example, a crown fire running through an untreated stand may drop down and become a surface fire when it hits a treated area because the crown density would be too low to support crown fire. This type of change in fire behavior was observed on the Hayman Fire (Martinson et al. 2003). The Polhemus prescribed burn in November 2001 removed most surface fuel and pruned lower live branches from trees but did not significantly reduce overstory density. These changes were sufficient to stop the Hayman Fire when it burned into the area in June 2002 even though intense fire behavior was present, facilitated by high wind and low relative humidity.

Alternative 2, by deferring treatment in the project area, would maintain current forest and fuels conditions. Without treatment, the current condition would favor a crown fire regime, with a high risk of large-scale stand-replacing fire and subsequent risks to lives, property, and resources. As such, selection of this alternative would not adhere to the best available science in regard to reducing potential fire behavior.

Creation of Landscape-scale Strategic Fuel Breaks

Fire behavior under extreme fire weather may involve large areas of fuels, multiple fires, and spotting; therefore, strategically located fuel treatments are needed across the landscape at a scale of hundreds to thousands of acres. Recent studies and observations of landscape-scale wildland fire behavior indicate that a landscape approach to fuel treatments is more likely to reduce fire spread, intensity, size, and suppression capability than an individual stand approach (Graham et al. 2004). Treating small or isolated stands without assessing the broader landscape will most likely be ineffective in reducing wildfire extent and severity.

Alternative 1 with modifications will contribute to strategic fuel breaks at the landscape level by linking individual treated stands into continuous landscape-scale fuel breaks. Aspen stands, meadows, and riparian areas provide the primary opportunities to connect strategic fuel breaks. Aspen stands, wet meadows, and riparian areas generally exhibit slow rates of spread and low fire intensity. Dry meadows

can exhibit high rates of spread; however, this fuel type can also be easily modified (through burn-out, mechanical fire line construction, or other methods) to support suppression actions.

The creation of landscape-scale strategic fuel breaks will improve the effectiveness of fire suppression forces, increase firefighter and public safety, and reduce firefighting costs. Safety concerns often limit firefighting efforts to the most costly methods (such as using aircraft) in areas of active and passive crown fire. In addition, these efforts are less likely to be successful because of high flame lengths, high rates of spread, extensive spotting, and other extreme fire behavior. On the other hand, surface fires do not raise as many safety concerns and can often be attacked more effectively with less expensive, ground-based resources. These resources are also more likely to be successful because of shorter flame lengths, lower rates of spread, less spotting, and generally more moderate fire behavior.

Alternative 2 would not contribute to a landscape-level approach to fuels management through creation of strategic fuel breaks. The potential for extreme fire behavior and large wildland fires would not be reduced. Firefighter and public safety, along with the efficiency of firefighting resources, would not be improved. As such, selection of this alternative would not adhere to the best available science with regard to the creation of landscape-scale strategic fuel breaks.

Issues

Public scoping and agency specialists' input from the U.S. Forest Service and the National Environmental Policy Act (NEPA) contractor contributed to issue identification and alternative development for this project. No key issues were identified during scoping. Therefore, no action alternatives other than the proposed action were developed.

Substantive Comments on the EA

The EA was available for public review from April 13 to May 16, 2005. The USFS received 93 comment letters on the EA from 82 individuals, agencies, and organizations during the public comment period. The EA team reviewed and responded to all substantive comments. Issues raised by the public, including a summary of the substantive comments and responses to those comments, are provided in **Appendix A**. The modifications to Alternative 1 were partially made in response to the substantive comments on the EA. Therefore, selection of Alternative 1 with modifications is based in part on, and in conformance with, the substantive comments on the EA. No substantive comments were received that concerned Alternative 2. Therefore, it appears that selection of this alternative would also be in conformance with the substantive comments on the EA.

ALTERNATIVES CONSIDERED

Three alternatives were considered in detail (no action, proposed action, and modified proposed action alternatives). The modified proposed action is described in detail above. The "No Action" alternative, where no new activities would take place in the project area, is summarized in the following section. These alternatives are discussed in Chapter 2 of the EA (pages 2-10 through 2-23). Four other alternatives were considered but eliminated from detailed study, as described below.

Alternative A would have included the same extent of mechanical treatments as Alternative 1, but prescribed fire would not be used. This alternative was eliminated from detailed study because prescribed fire is an important tool for removing ladder and ground fuels, preparing seedbeds, and promoting natural regeneration. Prescribed fire can be the most efficient method of reducing fuels and modifying vegetation

while minimizing effects to other resources. Obtaining similar fuel reduction results with mechanical methods can be prohibitively expensive and can cause adverse effects to other resources.

Alternative B would have added the project area to the Mount Evans Wilderness, closed all vehicle access to the project area, and banned open fires. No vegetation treatments would have been implemented. This alternative was eliminated from detailed study because wilderness designation, access changes, and fire bans are outside the scope of the project. In addition, this alternative would not address the 70 percent of historic fires on the South Platte Ranger District that are caused by lightning.

Alternative C would have included the same treatments as Alternative 1, except that no treatments would have been implemented in IRAs. This alternative was eliminated from detailed study because it would eliminate 739 acres of proposed treatments within 1,000 feet of private lands and would not support the landscape-scale network of strategic fuel breaks being developed by the USFS and its state and local partners.

Alternative D would have included only those treatments in Alternative 1 that are within 1,000 feet of private lands. This alternative was eliminated from detailed study because it would not reduce fuel loads and potential fire behavior outside the treated area. Treatments are needed more than 1,000 feet from private lands to create sustainable forest conditions that are resilient to fire, insects, and diseases and to support the landscape-scale network of strategic fuel breaks being developed by the USFS and its state and local partners.

Alternative 2 – No Action

The no action alternative provides a baseline for comparison to aid in determining the relevance of issues and effects of the proposed action. Under Alternative 2, the proposed mechanical treatments, prescribed fire treatments, transportation system changes, and stewardship projects would not occur. Current management activities, such as maintenance of recreation facilities and fire suppression, would continue, but no action would be taken to meet the purpose of and need for the proposed project. Existing fuel accumulations and the risk of large-scale crown fire would not be reduced. Potential fire behavior would not be altered, and the risk to firefighters, the public, and private property in the event of a wildland fire would not be reduced.

Implementation of this alternative would cause no additional incremental effects relative to the issues previously described. For example, there would be no project-induced effects to water quality, special-status species, or visual resources. Ongoing ecological processes, such as insect and disease infestations, would continue unchecked. The potential for large-scale, difficult-to-control wildland fires would remain at current levels in the short-term, but would likely increase in the long-term as stands age and fuels accumulate. Such fires could have substantial effects on various resources.

PUBLIC INVOLVEMENT

The public involvement process began with the publication of a Legal Notice on September 2, 2004 in the Douglas County News-Press. The legal notice included 1) a brief background for the project; 2) potential actions; 3) the purpose of, and need for, the proposed project; and 4) opportunities to provide comments, including an announcement of two public open houses. On September 2, 2004, a newsletter with identical information was mailed to a list of 49 interested and affected parties and a bulk mailing with identical information was distributed to 3,296 individuals along mailing routes that included areas within one mile of the proposed project area. Notices of the public open houses were also posted on the Forest's web site, two community web sites, the Fairplay Flume and High Timber Times newspapers, and on local community bulletin boards.

Public open houses were held on September 8 and 11, 2004 for the purpose of explaining the project and soliciting comments from the public. At least 54 individuals attended these open houses. Comments were accepted on the proposed project until October 4, 2004. During the scoping period, 18 individuals provided written comments at the open houses. In addition, 22 letters, emails, faxes, and phone calls were received offering comments and potential issues for the proposed project.

The EA was mailed to a group of interested parties on April 13, 2005. The EA was also made available on the website for PSICC. The public comment period of 30 days began when a legal notice was published in the Douglas County News-Press on April 13, 2005. Comments were accepted until May 16, 2005. Ninety-three comment letters were received from 82 individuals, agencies, and organizations during the public comment period. Each substantive comment received was reviewed. The interdisciplinary team responded to all substantive comments. **Appendix A** contains all of the comments and responses.

FINDING OF NO SIGNIFICANT IMPACT

After considering the environmental effects described in the EA, I have determined that implementation of Alternative 1 with modifications will not significantly affect the quality of the biological, physical, or human environment. Therefore, an environmental impact statement (EIS) will not be prepared. This determination is based on the effects analysis documented in the EA, subsequent analysis associated with the response to comments, and the following factors (40 CFR 1508.27).

Context

This project will occur within a local context. Local issues were identified through the scoping process and were considered in alternative development and effects analysis. The project area is limited to two percent of the Pike National Forest (Pikes Peak, South Park, and South Platte Ranger Districts of the PSICC). Project duration is expected to be five to seven years, but could take longer to complete, depending on funding and other factors. Although the project has regional interest, the people most affected by the project will be local residents and recreationists, primarily from the Denver and nearby Front Range communities, that frequent the project area.

Intensity

Based on the analyses documented in the Harris Park Fuels Management Project EA, I have determined the following with regard to the intensity of the project.

Environmental Effects

I find that the proposed action can be carried out with no significant effects on socioeconomic, cultural, and natural resources as documented by the EA. Overall, this project will have a long-term beneficial effect on the environment, as discussed in several sections in Chapter 3 in the EA. The treated areas will be less dense, more open, and less vulnerable to diseases, insects, and large-scale, high-intensity wildfire (sections 3.2 and 3.3 in the EA). The treatments will create a more sustainable and heterogeneous natural landscape with diverse habitats that will have a long-term beneficial effect on wildlife (sections 3.6 and 3.7 in the EA). Reducing the risk of large-scale, high-intensity wildland fire will decrease the risk of erosion from burned areas and the potential for sediment delivery to streams, specifically the South Platte River, a municipal watershed (section 3.5 in the EA). Decreasing the risk of forest fires will reduce the risk to health and safety conditions for local landowners and firefighters (section 3.3 in the EA). The local economy will temporarily benefit from vegetation treatment-related employment and expenditures and

the risk of negative economic effects from large-scale wildland fires will be reduced (section 3.13 in the EA).

I find that the vegetation treatments will cause some insignificant adverse effects, most of which will be short-term. There may be a slight decrease in soil productivity because of topsoil disturbance during vegetation removal and prescribed burning operations (section 3.5 in the EA). There may also be a slight decrease in soil quality because of erosion (section 3.5 in the EA). However, the treatments will reduce the area prone to fire, thus substantially reducing the long-term soil erosion risk (section 3.4 in the EA). Some forested habitat will be changed into openings (section 3.2 in the EA). A more open forest structure will be created in some closed stands. This will adversely affect those wildlife species that depend on the more closed habitat structure, but benefit those species that prefer open habitats (sections 3.6 and 3.7 in the EA). Some adverse effects will be caused by the use of prescribed fire. Some large woody debris and soil organic matter will be consumed. The severity of these effects will depend on the intensity and duration of the prescribed fire (section 3.3 in the EA). Prescribed fire will also generate smoke, which may affect local residents and other people in and near the project area; however, all state air quality guidelines would be met (section 3.4 in the EA). Recreationists, forest visitors, and local residents will notice some disturbance to the landscape (sections 3.10 and 3.11 in the EA). This is an unavoidable effect of vegetation treatment activities. Timber harvesting and road building activities may temporarily disrupt normal recreational uses of the area. Effects will include noise, dust, wood debris, smoke, and disturbance of understory vegetation (section 3.10 in the EA). There is no assurance that every cultural resource site has been located in advance of all planned management activities. Some ground-disturbing activity could unavoidably affect an undiscovered historic or prehistoric site. Sites discovered in this manner will be immediately protected from further disturbance with a site-specific management plan. Some sites could be inadvertently destroyed or damaged (section 3.12 in the EA).

Public Health or Safety

The proposed action will comply with all state and federal regulations related to public health and safety. I find there are no adverse effects on public health and safety because the actions will reduce the risk of large-scale, high-intensity fires and improve the safety of the public and firefighters (section 3.3 in the EA).

Unique Characteristics of the Area

I find there will be no significant effects on unique characteristics such as historic or cultural resources, parklands, prime farmlands, wetlands, floodplains, or wild and scenic rivers. Parklands and prime farmlands will not be affected because they do not occur in the project area. Effects to wetlands and floodplains will be minimized through application of standards in the WCPH (USFS 2001).

The segment of the North Fork of the South Platte River in and adjacent to the south end of the project area (segment G) was determined to be not eligible for inclusion in the National Wild and Scenic Rivers System because it is neither free-flowing nor does it possess any “outstandingly remarkable values” (USFS 1996). Segment G has undergone extensive alteration by human activities downstream from the Roberts Tunnel and includes over 20 diversion dams, numerous check dams, the outlet for the Roberts Tunnel, channel relocations, and countless other human-made intrusions and modifications to the river bed, channel, banks, and vegetation, leaving a majority of the segments no longer in a natural riverine condition.

Controversy

This project has generated some controversy. While some public comments were supportive of the project, others disagreed with some or all of the project's components. The proposed action has been modified to address many of the public comments. Many commenters were concerned about treatments in IRAs. Therefore, all treatments in IRAs more than 1,000 feet from private lands were removed from the proposed action. The U.S. Fish and Wildlife Service was concerned about the potential effects of the project on Canada lynx. Therefore, stands with a spruce/fir component and existing regeneration units more than 1,000 feet from private lands were removed from the proposed action. New project design standards, mitigation measures, and monitoring tasks were developed in response to public comments on the EA. These new measures will slightly modify project components to respond to some of the concerns expressed by the public during review of the EA. I find this project to be scientifically supported as discussed in the rationale for my decision above and in chapter 3 of the EA.

Uncertainty

The analyses in the EA (chapter 3) show that the effects of the proposed project are not uncertain and do not involve unique or unknown risk. The desired future condition of the project area is well supported by the scientific literature (for example, Brown et al. 1999, Foster Wheeler 1999, Graham et al. 2004, Huckaby et al. 2000, Kaufmann et al. 2000a, Kaufmann et al. 2000b, Martinson et al. 2003, Veblen 2003). The proposed activities evolved from previous treatments undertaken on similar projects in similar locations and environments. For example, the Upper South Platte Watershed Protection and Restoration Project implemented similar treatments and involved an extensive monitoring and adaptive management effort (for example, Johnston 2004, Libohova 2004). This monitoring has shown that the proposed treatments will move the project area towards the desired future condition.

Precedent

I find that this decision does not set a precedent for future decisions. This project relies on treatment activities that have been previously used near the project area in the same type of landscape in terms of vegetation, fire regimes, land uses, and other factors. These types of treatments have been accomplished in Arizona, California, Colorado, New Mexico, Oregon, and other western states in aspen, lodgepole pine, ponderosa pine, and similar forests. This project will not establish a precedent for future projects with significant effects. Future similar projects will have to be evaluated under NEPA to address the significance of the effects of those specific actions.

Cumulative Impact

I find that the cumulative effects of this project are not significant because this activity, when considered in combination with other past or reasonably foreseeable future actions, is not expected to have a cumulatively significant effect on any resources (see each section in chapter 3 in the EA).

Properties On or Eligible for the National Register of Historic Places; Significant Scientific, Cultural, or Historic Resources

I find that the proposed action will have no adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places because the PSICC will complete cultural resource inventories in the treatment units before conducting any management activities in the units. Any sites located during these surveys that are eligible or potentially eligible will be avoided by all project activities. Survey results and proposed mitigation will be approved by the Colorado State Historic Preservation Office before project activities begin. I find that the proposed action will not cause

loss or destruction of significant scientific, cultural, or historical resources because project activities will avoid these resources. Local tribal officials were contacted with letters during the scoping period. They did not have any concerns or issues. Therefore, I find the action will not affect local tribes.

Endangered or Threatened Species

I find that the proposed action will not jeopardize the continued existence of any federally listed or proposed endangered or threatened species or their critical habitat, nor will it contribute to a loss of viability or a trend towards federal listing under the ESA of any USFS-listed sensitive species. The Biological Assessment (BA) and Biological Evaluation (BE) support this conclusion. The U.S. Fish and Wildlife Service (USFWS) concurred with the “may affect, but is not likely to adversely affect” determinations contained in the BA (Letter, March 2, 2006, from Susan C. Linner, Colorado Field Supervisor, Fish and Wildlife Service to J.R. Hickenbottom, District Ranger, Forest Service, South Platte Ranger District). (see section 3.7 in the EA, the BA and BE, and the USFWS concurrence letter in the project file). Conservation measures described in the EA and modified in the response to public comments on the EA (**Appendix A**) will be carried out to minimize the effects of the proposed action on threatened, endangered, proposed, and sensitive species. Therefore, I find that the action can be carried out with no significant adverse effects to federally listed species.

Federal, State, and Local Laws or Requirements

I find that the proposed action will not violate any federal, state, or local laws for protection of the environment. Applicable laws and regulations are considered in chapter 3 of the EA.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

I find that Alternative 1 with modifications is consistent with federal, state, and local laws, regulations for the protection of the environment, and the Forest Plan. Applicable laws, regulations, and Forest Plan compliance were considered in chapter 3 of the EA (pages 3-101 through 3-103).

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES AND IMPLEMENTATION DATE

This decision is subject to appeal under 36 CFR 215. Appeals must meet the content and other requirements of the regulation under which the appeal is submitted.

Appeals submitted (including attachments) must be in writing and filed (regular mail, fax, e-mail, hand-delivery, express delivery, or messenger service) with the Appeal Deciding Officer (§ 215.8) within 45 days following the date of publication of a legal notice of this decision in the *Douglas County News-Press*, published in Douglas County, Colorado. The publication date of the legal notice in the newspaper of record is the exclusive means for calculating the time to file an appeal (§ 215.15 (a)). Those wishing to appeal should not rely upon dates or timeframe information provided by any other source. Only those individuals or organizations that submitted substantive comments during the comment period may file an appeal.

Appeals submitted as electronic attachments must be provided in one of the following formats: Microsoft Word (.doc), text (.txt), or Rich Text Format (.rtf). For electronically mailed appeals, the sender should normally receive an automated electronic acknowledgment from the agency as confirmation of receipt. If the sender does not receive an automated acknowledgment of the receipt of the comments, it is the sender’s responsibility to ensure timely receipt by other means.

The authorized officer making this decision is willing to meet with the applicant to hear and discuss any concerns or issues related to this decision.

Appeals must be filed with USDA - Forest Service, Attn: Appeal Deciding Officer, P. O. Box 25127, Lakewood, CO, 80225-25127. Fax 303-275-5134. Email: appeals-rocky-mountain-regional-office@fs.fed.us.

If no appeal is filed, implementation of this decision may occur on, but not before, the fifth day from the close of the appeal filing period.

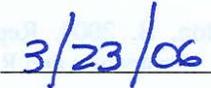
CONTACT PERSON

Please direct questions about this Decision Notice and Finding of No Significant Impact and requests for further information to Fred Patten, South Platte District Office, 19316 Goddard Ranch Court, Morrison, Colorado 80465, (303) 275-5641.

SIGNATURE AND DATE



J.R. Hickenbottom, District Ranger



Date

Pike and San Isabel National Forests and Cimarron and Comanche National Grasslands
South Platte Ranger District

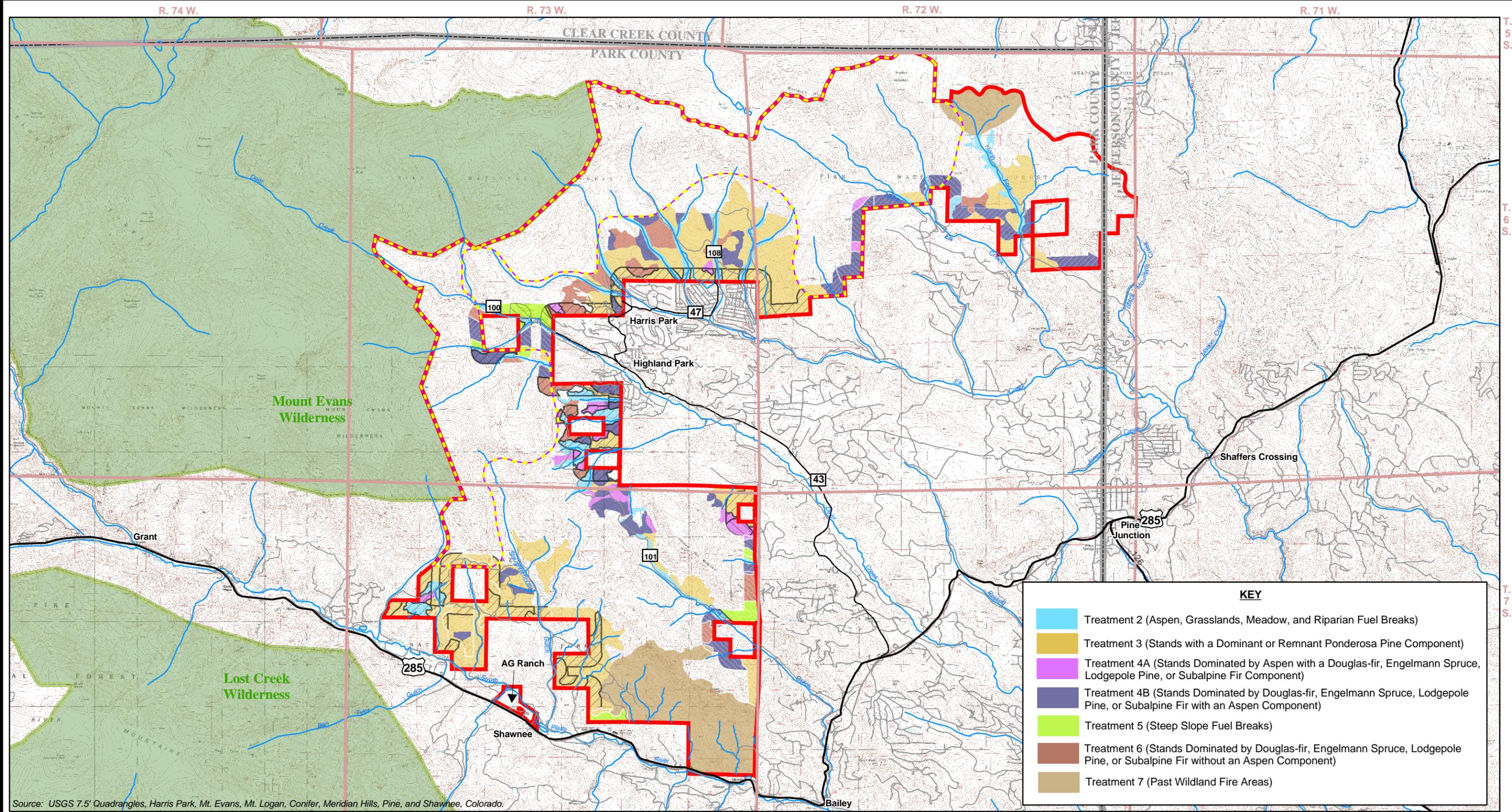
Responsible Official

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Source: USGS 7.5' Quadrangles, Harris Park, Mt. Evans, Mt. Logan, Conifer, Meridian Hills, Pine, and Shawnee, Colorado.

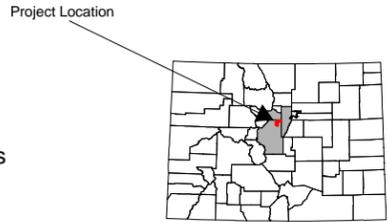
KEY

- Treatment 2 (Aspen, Grasslands, Meadow, and Riparian Fuel Breaks)
- Treatment 3 (Stands with a Dominant or Remnant Ponderosa Pine Component)
- Treatment 4A (Stands Dominated by Aspen with a Douglas-fir, Engelmann Spruce, Lodgepole Pine, or Subalpine Fir Component)
- Treatment 4B (Stands Dominated by Douglas-fir, Engelmann Spruce, Lodgepole Pine, or Subalpine Fir with an Aspen Component)
- Treatment 5 (Steep Slope Fuel Breaks)
- Treatment 6 (Stands Dominated by Douglas-fir, Engelmann Spruce, Lodgepole Pine, or Subalpine Fir without an Aspen Component)
- Treatment 7 (Past Wildland Fire Areas)

Legend

- Harris Park Project Boundary
- Treatment 1A (1,000-foot Buffer from Private Lands, USFS Treatment, <40% slopes)
- Treatment 1B (1,000-foot Buffer from Private Lands, USFS Treatment, >40% slopes)
- Treatment 1C (1,000-foot Buffer from Private Lands, "Good Neighbor" Treatment, <40% slopes)
- Treatment 1D (1,000-foot Buffer from Private Lands, "Good Neighbor" Treatment, >40% slopes)
- Inventoried Roadless Area
- Wilderness Area
- Highway
- Road
- Stream
- County Boundary

0 0.5 1 2 Miles
 Universal Transverse Mercator
 North American Datum 1927
 Zone 13



HARRIS PARK FUELS MANAGEMENT PROJECT

FIGURE 1
MODIFIED PROPOSED ACTION

ANALYSIS AREA: PARK, JEFFERSON, & CLEAR CREEK COUNTIES, COLORADO	
Date: 12/15/2005	File: I/1703/TREATMENTS_ALT1.MXD
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APPENDIX A – PUBLIC COMMENT CONTENT ANALYSIS AND RESPONSE TO COMMENTS

INTRODUCTION AND SUMMARY

The Environment Assessment (EA) for the Harris Park Fuels Management Project was mailed to a group of interested parties on April 13, 2005. The EA was also made available on the website for the Pike and San Isabel National Forests and Cimarron and Comanche National Grasslands (PSICC). The public comment period of 30 days began when a legal notice was published in the Douglas County News-Press on April 13, 2005. Comments were accepted until May 16, 2005. Ninety-three comment letters were received from 82 individuals, agencies, and organizations during the public comment period. Table 1 lists the respondents, the organizations they represent (if applicable), and the identification number that was assigned to each letter for tracking.

Table 1 Agencies, Individuals, and Organizations Providing Comments on the Environmental Assessment for the Harris Park Fuels Management Project

Respondent	Organization (if applicable)	Letter Identification Number
Parmelee, S.		1
Moore, G. F.		2
Prelipp, B. L.		3
Hanson, J.		4
Mitchell, L. M.		5, 7, 56, 63
Parsons, J.		6
Budny, S.		8
Lawton, T.		9
Stone, J.		10
Bathen, L.		11, 29
Gordon, M. P.		12
Polozynski, E.		13
Blackwell, S.		14
Soho, N.		15
Supernavage, E.		16
Allard, J.		17
Bartlett, S.		18
Ginsberg, J.		19
Crandall, D.		20
Cummings, M.		21
Smith, J.		22
Simmons, T.		23
Cunningham, K.		24
Dickinson, T.		25, 26
Miller, A.		27
Cooke, C.		28
Kwok, H.		30
Christine, D.		31
Spezia, J.		32

Table 1 Agencies, Individuals, and Organizations Providing Comments on the Environmental Assessment for the Harris Park Fuels Management Project

Respondent	Organization (if applicable)	Letter Identification Number
Smeal, A.		33
Ball, B.		34
Wagner, J.	United Mountain Communities	35
Bishop, W.		36
Carter, J.		37
Thompson, D.		38
Williams, C. M.		39, 62, 72
Zukoski, E. B.		40
Pilewski, L.		41
Donner, M.		42
Pedersen, P.		43
Betz, B.		44
Kelly, N.		45
Lien, D.		46
Douglas, W.		47
McQuistan, B.		48
Futterman, J.		49
Miller, B. and D.		50
Hood, J.	Colorado Division of Wildlife	51, 92
Corrigan, M.		52
Mundwiller, E.		53
Lorch, B.		54
Staufer, J.		55, 69
Maxwell, M.		57
Fry, T.	The Wilderness Society	58
Lozensky, R.		59
Kelson, B.		60
Callison, A. W.		61
Terrell, W. R. and L. K.		64, 75
Smith, R.	Colorado Wild	65
Lincoln, D.		66
Ciccarelli, J.		67
Staufer, A.		68
LoSasso, W.		70
Staufer, J.		71
Davis, C.		73
Goeken, M.		74
Davis, J.	Platte Canyon Fire Protection District	76
Chasse, D.		77

Table 1 Agencies, Individuals, and Organizations Providing Comments on the Environmental Assessment for the Harris Park Fuels Management Project

Respondent	Organization (if applicable)	Letter Identification Number
Angulo, J.		78
Unknown 1		79
Unknown 2		80
Bevin, R.		81
Schafer, J.		82
Kirk, R. L.		83
Unknown 3		84
McQueary, J.		85
Kunkel, M.		86
McMurtrey, G.		87
Hosch, J.		88
Bittle, J.		89
Schulman, M.		90
Bird, B.	Forest Guardians	91, 93

COMMENTS AND RESPONSES

Each substantive comment received has been reviewed. Comments in favor of or against the proposed action or alternatives, or those that only agree or disagree with agency policy are not considered substantive. Substantive comments are defined as those that do one or more of the following:

- Question, with reasonable basis, the accuracy of information in the EA;
- Question, with reasonable basis, the adequacy of the environmental analysis;
- Present reasonable alternatives other than those presented in the EA; or
- Cause changes or revisions in the proposal. In other words, they raise, debate, or question a point of fact or policy.

The interdisciplinary team (IDT) responded to all substantive comments. Summaries of similar comments have been compiled and are presented under each of the issue headings below. This allows the reader interested in a particular topic to review the substance of the issue and the team’s response. The letters and comments used to develop each summary are listed after the comment. A response is provided after each comment summary.

The comment statements loosely follow the organization of the EA. Some comments may cover more than one issue; therefore, all issues should be completely reviewed before conclusions are reached on the level of comment for each resource issue.

Purpose of and Need for Action

1. Comment: The departure from historic conditions has been exaggerated. The discussion of fire regimes is inaccurate. How can ponderosa pine in the project area be outside its historic range of variability when lodgepole pine in the project area is not? (64-1, 65-1, 75-1).

Response: The historic range of variability is discussed on pages 3-9 and 3-10 in the EA. Fire regimes are discussed on pages 3-15 through 3-17 in the EA. These discussions are based on existing scientific literature (for example, Brown et al. 1999, Kaufmann et al. 2000) and review articles (for example, Anderson 2003, Foster Wheeler 1999, Howard 1996, Howard 2003, Romme et al. 2003). In summary, ponderosa pine stands in the project area were subject to a mixed-severity fire regime and are outside of their historic range of variability because of past timber harvest and fire suppression. Lodgepole pine were subject to an infrequent, high severity (stand replacement) fire regime and are within their historic range of variability in terms of age because of past timber harvest. Aspen stands were probably also subject to a mixed severity fire regime, although low intensity surface fire tends to be dominant. Aspen stands are likely outside their historic range of variability, with extensive conifer invasion in older stands in the project area because of past timber harvest and fire suppression.

In the Harris Park area, ponderosa pine stands tend to occur on lower, warmer, drier south-facing slopes, while lodgepole pine occurs on cooler, moister, north-facing slopes. Historically, fires would have been more likely to ignite and spread on south-facing slopes, promoting a mixed severity fire regime and favoring ponderosa pine and other fire-tolerant species. Fire suppression has reduced the number and extent of fires in these areas, causing ponderosa pine stands to be outside their historic range of variability.

Fire would have been less likely to ignite and spread on north-facing slopes, except during dry years, when large-scale, high severity fires would have been possible, favoring fire-intolerant (but fire-adapted) species such as lodgepole pine. Although it is uncertain if fire suppression has actually prevented these types of fires in the project area, the age, health, and fuel conditions of the current stands suggests that they are within their historic range of variability.

The burn pattern for the Snaking Fire, which occurred in the project area in 2002, illustrates this concept. The fire burned with mixed severity (combination of surface and crown fire) in primarily ponderosa pine on south slopes. Where the fire spotted over Split Rock and Grouse Mountain on to north slopes with lodgepole pine and spruce/fir cover types, very little spread occurred, even during the most severe burning conditions (Hart 2002).

2. Comment: The science regarding restoration of higher elevation systems such as those in the project area remains uncertain. Including speculative restoration benefits with the broadly supported goal of risk reduction unnecessarily detracts from the latter goal (58-1).

Response: While restoration of the historic range of variability and natural fire regimes is a widely recognized goal of fuels management projects (for example, National Fire Plan 2002), the IDT that prepared the EA for the Harris Park Fuels Management Project was careful to separate risk reduction from restoration. The purpose of and need for the proposed project is defined as follows (page 1-5 of the EA):

“The purpose of the Harris Park Fuels Management Project is to create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions. This can be accomplished by reducing forest canopy density and ground and ladder fuels across the landscape. The risk of large-scale, high-intensity wildfire with uncontrollable fire behavior, such as active crown fire, would be reduced.

The need for the proposed project is driven by forest conditions. Historic fire suppression has created forests that are more susceptible to a large-scale, high-intensity wildfire. The proposed project is needed to reduce the risk, intensity, and hazards associated with a high-intensity wildland fire near

the Harris Park community; improve forest health; and enhance ecological diversity in the project area.”

Each of the treatments discussed in Chapter 2 of the EA (pages 2-10 through 2-18) was designed to respond to the purpose of and need for the proposed action. Some treatments, such as those planned for ponderosa pine stands, would incidentally promote conditions similar to the historic range of variability because those conditions best meet the purpose of and need for the project. Other treatments, such as those planned for lodgepole pine stands, would not promote conditions similar to the historic range of variability. Large clearcuts or stand-replacing fire would be needed to restore lodgepole pine stands. These types of treatments would have unacceptable environmental effects and were not considered.

3. Comment: The project purpose of providing for diverse wildlife habitats is not necessary. There is already a considerable diversity of vegetation in the area. No one insect or disease would denude the area of trees (64-2b, 65-2b, 75-2b).

Response: Providing for diverse wildlife habitats is an important component of the proposed project and implementation of the PSICC Forest Plan (USDA Forest Service [USFS] 1984a). Forest Direction for diversity in the Forest Plan (page III-12) states, “in forested areas...5 percent of more should be in grass/forb stages”. As noted in Table 3-1 (page 3-9 of the EA), only 2.6 percent of the project area is in the grass/forb structural stage. The proposed project would improve habitat capability for species that prefer early seral habitats, such as mule deer and elk (pages 3-41 and 3-43 in the EA), by increasing the availability of open habitats (Table 3-5 on page 3-13 in the EA). While it is true that no one insect or disease is likely to cause large-scale mortality of trees across the project area, a wildland fire could easily burn large portions of the project area under current conditions. The proposed project would reduce the potential for large-scale loss of wildlife habitat.

4. Comment: The project purpose of providing for recreational opportunities is not necessary. There are already considerable recreational opportunities in the area. The project might decrease the quality of non-motorized recreational opportunity and would likely increase motorized recreational opportunity (64-2c, 65-2c, 75-2c).

Response: Providing for recreational opportunities is a component of the proposed project and implementation of the Forest Plan (USFS 1984a). Forest Direction for management of developed recreation in the Forest Plan (page III-20) states “Construct, reconstruct, and maintain developed sites in accordance with the established ROS classification for the management area.” Forest Direction for dispersed recreation management in the Forest Plan (page III-21) states “Provide a broad spectrum of dispersed recreation opportunities in accordance with the established ROS classification for the management area.” Several potential improvements to developed recreation sites have been identified. Some of these improvements would also contribute to opportunities for dispersed recreation because they involve trailhead sites. Stewardship contraction may be used as part of the proposed project to accomplish these activities (page 2-19 in the EA).

The proposed project would not increase the availability of motorized recreational opportunities because no new system (permanent) roads would be constructed and all temporary roads would be closed to public use during the project and obliterated when the project is complete. The proposed project may temporarily decrease the quality of recreational opportunities (page 3-86 in the EA) by altering visual quality (pages 3-89 to 3-91 in the EA) and because of short-term closures of some developed sites during treatment operations. Project design standards and mitigation measures (pages 2-20 through 2-22 in the EA) would be applied to minimize effects to recreational opportunities.

5. Comment: Forests should be allowed to burn (24-3).

Response: When the potential benefits of allowing wildland fires to burn (wildland fire use) outweigh the risks, wildland fire use can be an acceptable management tool. In these cases, the benefits to resources and the reduced economic cost of firefighting are more important than the potential loss of resources and economic costs of allowing fires to burn. However, in many areas, including the Harris Park area, the potential loss of resources and economic costs of wildland fires far outweigh the benefits of wildland fire use. For this reason, allowing fires to burn in the Harris Park area is not a feasible alternative.

6. Comment: The purpose and need are so narrowly stated that no alternative other than the proposed action would be acceptable (39-11, 62-11, 72-11, 73-10).

Response: The purpose of and need for the proposed project is defined as follows (page 1-5 of the EA):

“The purpose of the Harris Park Fuels Management Project is to create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions. This can be accomplished by reducing forest canopy density and ground and ladder fuels across the landscape. The risk of large-scale, high-intensity wildfire with uncontrollable fire behavior, such as active crown fire, would be reduced.

The need for the proposed project is driven by forest conditions. Historic fire suppression has created forests that are more susceptible to a large-scale, high-intensity wildfire. The proposed project is needed to reduce the risk, intensity, and hazards associated with a high-intensity wildland fire near the Harris Park community; improve forest health; and enhance ecological diversity in the project area.”

As stated, the purpose of and need for the proposed project are quite broad. The proposed action was developed to respond to the purpose and need, as well as numerous public comments received during the scoping period. No other action alternatives were suggested by the public during the scoping period, or developed by the IDT, that would provide the same balance of resource protection, treatment options, and economic efficiency as the proposed action. Each of the other alternatives developed had substantial negative aspects related to potential resource effects, limitation of treatment options, or high economic costs.

Proposed Action and Alternatives

Alternative Development

7. Comment: An alternate road should be built out from Harris Park (7-1).

Response: An alternate road leading out to Highway 285 from the Harris Park area would be an important factor in providing an additional evacuation route for residents and improved access for firefighters in the event of a wildland fire. The Wildfire Hazard Risk Assessment prepared for the Platte Canyon Fire Protection District (FPD) (Anchor Point 2003) identified one possible location for an alternate access route (Hidden Valley Alternate Escape Route). However, this and all other potential routes for an alternate road would cross private lands (and no public, including USFS, lands) and are beyond the scope of the proposed project.

8. Comment: Thinning should be done on public and private forested property in the Conifer, Evergreen, and Bailey areas. Jefferson County should assist homeowners with thinning (8-1).

Response: *Thinning and other fuels management projects are ongoing and planned in several of the referenced locations. Some of these are discussed on page 3-1 and shown in Figure 3-1 of the EA. The proposed Harris Park Fuels Management Project would complement other ongoing and planned fuels treatment projects that are part of the larger 285 Conifer-Bailey Fuels Treatment Initiative outside the project boundary. Partners in this initiative include the Platte Canyon FPD, Elk Creek FPD, Jefferson and Park Counties, Colorado State Forest Service (CSFS), Bureau of Land Management, and USFS (PSICC and Arapaho/Roosevelt National Forests).*

9. Comment: The Platte Canyon FPD is moving forward with private land fuel treatments that would match the Forest Service plan (76-2).

Response: *Thank you for your comment. The response to Comment 8 addresses these and other treatments that are ongoing or planned near the Harris Park project area.*

10. Comment: The EA fails to analyze an adequate range of alternatives. The “Alternatives Considered But Eliminated From Detailed Study” and variations of them are alternatives that should be fully considered (39-5, 62-5, 64-7a, 65-7a, 72-5, 73-7, 75-7a, 91-1a, 93-1a).

Response: *Alternatives to a proposed action are developed to address issues rather than merely for the sake of broadening the range of alternatives. As discussed in the response to Comment 6, no other action alternatives were suggested by the public during the scoping period, or developed by the USFS IDT, that would provide the same balance of resource protection, treatment options, and economic efficiency as the proposed action. Each of the other alternatives developed had substantial negative aspects related to potential resource effects, limitation of treatment options, or high economic costs. For this reason, each of the other action alternatives was eliminated from detailed study (pages 2-9 and 2-10 in the EA). In response to other comments (see response to comment 15), the Responsible Official choose not to treat inventoried roadless areas (IRAs) that were more than 1000 feet from private boundaries, thus combining elements from the No Action and Proposed Action alternatives for a third alternative, the Modified Proposed Action Alternative.*

11. Comment: There is little assurance that the requisite funding to both initially treat and then monitor and maintain those treatments would be available. The USFS should state for the record its intent to prioritize implementation of treatments that complement work done on adjacent private land, deferring other treatments to a future date after the priority of risk reduction has been achieved (58-2).

Response: *The USFS is not required to prioritize treatments based on hazardous fuels work done on private land. However, the USFS may, during project implementation, choose to prioritize treatment areas based on several factors, including their relationship with work done on private lands. However, all areas proposed for treatment would contribute to landscape-scale reduction in risk from wildland fire. As such, the USFS intends to complete all proposed treatments as funding allows.*

12. Comment: The EA does not adequately disclose how the proposed project considers priorities laid out in the Platte Canyon FPD CWPP or how the treatments were designed in such a way as to complement anticipated risk reduction activities on non-federal lands (58-3).

Response: *“The proposed project is part of the larger 285 Conifer – Bailey Fuels Treatment Initiative, a multi-agency review of fuels treatment priorities along the 285 corridor. As part of this*

planning effort, the Platte Canyon FPD has prepared a CWPP, as defined by the HFRA, that includes much of the project area” (page 2-4 in the EA).

“There are several current and future fuel treatment projects near the project area, including projects at Staunton State Park, on the Arapaho/Roosevelt National Forest, on BLM lands, and on private lands” (page 3-1 in the EA and shown in Figure 3-1). “Each of these treatments is part of the larger 285 Conifer – Bailey Fuels Treatment Initiative, which...would work to create a landscape where the potential for extreme fire behavior, the threat of a large-scale wildfire, and the fire hazard to surrounding private lands would be substantially reduced” (page 3-1 in the EA).

The project was designed to complement treatments under the CWPP. However, the USFS is not required to prioritize treatments based on CWPP priorities. Also, see Comment 13, which was submitted by the Platte Canyon FPD. This comment indicates that the proposed project is complementary to their CWPP.

13. Comment: The proposed project follows along with our CWPP, which was the result of the Wildfire Hazard Risk Assessment (76-1).

Response: *Thank you for your comment.*

14. Comment: The project is too large for its main intended purpose of reducing the fire threat to nearby residences. Any fuel reduction treatments should concentrate on land next to houses. The best defense against fire for homes is treatment on and near the homes themselves (Cohen 1999). The USFS should focus on treating areas near houses whose owners have created defensible space on their own lands. The EA failed to demonstrate that the purpose and need would not be met by limiting treatments to the immediate interface with private property. It is unclear how adopting this alternative would eliminate connections between treatments across jurisdictional boundaries (2-2, 5-1, 6-1, 11-1, 13-1, 14-1, 15-1, 16-1, 17-1, 18-1, 19-1, 20-1, 21-1, 22-1, 23-1, 25-1, 26-1, 27-1, 28-1, 29-1, 30-1, 31-1, 32-1, 34-1, 36-1, 37-1, 38-1, 39-9, 40-1, 41-1, 42-1, 43-1, 44-1, 45-1, 46-1, 47-1, 48-1, 49-1, 52-1, 53-1, 54-1, 55-1, 60-1, 62-9, 64-2a, 65-2a, 66-1, 67-1, 68-1, 69-1, 70-1, 71-1, 72-9, 73-1, 74-1, 75-2a, 78-1, 86-1, 89-1, 91-2f, 93-2f).

Response: *The alternative of locating all treatments adjacent to private land was considered but eliminated from detailed study in the EA because it does not meet the purpose of and need for the project. Although conducting treatments adjacent to private land would reduce fuel loads and potential fire behavior near homes, additional treatments are needed farther from homes to reduce the risk of large-scale wildland fire. The wind-driven Hayman fire traveled 19 miles in one day through continuous fuels (Finney et al. 2003). A running crown fire of this type can cause spot fires at great distances, spreading fire throughout the Harris Park community despite treated buffers around residences. For example, spotting was observed of up to ½ mile on the Snaking Fire (Hart 2002) and ¾ mile on the Hayman Fire (Finney et al. 2003). For this reason, a landscape-level approach to fuels treatment is needed to create strategic fuel breaks to slow or stop the spread of a large-scale, wind-driven fire.*

This alternative would also eliminate connections between treatments across jurisdictional boundaries that could protect larger communities. Figure 3-1 in the EA shows that proposed project in the context of other nearby fuel treatments. The proposed treatments would provide connectivity between other treatments across a large area of wildland-urban interface. The Platte Canyon FPD has commented that, “Our District is working in conjunction with this Environmental Assessment and is moving forward on the private land with fuels treatment that would match the Forest Service’s plan” (76-2).

Cohen's (1999) conclusion that fuels reduction is most effective within a few tens of meters of a home assumes that all vegetation is cleared within this distance and that firebrands are not a source of ignition (either because spotting is not occurring, or because there is not a suitable substrate on the home for a fire brand to ignite). Fuel treatments immediately adjacent to homes are outside the scope of the proposed project; however, as stated on page 2-15 of the EA, the USFS has placed a high priority on treating some areas within a 1,000-foot buffer from private lands because of immediate concerns for protecting residences and other improvements.

Another conclusion of Cohen's (1999) paper is that fuel treatments are not effective because they do not sufficiently reduce firebrand ignitions. Reducing firebrand ignitions is a two-part problem. One part is related to the flammability or ignitability of structures. This factor is outside of the scope of the proposed project. The other part is the production of firebrands themselves. Cohen (1999) suggests that vegetation treatments would have to potentially extend several kilometers from structures to be effective in reducing firebrand production and subsequent ignition of structures.

The treatment of fuels at some distance from structures and private property is an important part of the proposed project. Part of the purpose of and need for the project is to reduce fuels so that opportunities for suppression are improved in the event of a wildland fire, safety of the public and firefighters is enhanced, intensity of wildland fires is reduced, and fire size is minimized. By reducing fire size and intensity, firefighting activities can be more effective and the potential for firebrand creation, spread, and ignition of structures would be reduced. Cohen and Stratton (2003) studied the loss of structures in the Hayman Fire. In general, firefighters were not able to protect structures because of safety concerns related to the intensity and rate of spread of the fire. Of the 132 structures assessed by Cohen and Stratton (2003), 70 were destroyed by nearby high-intensity fire, while 62 were lost to surface fire or firebrands. This indicates that if the Hayman Fire had been a lower-intensity fire, where fewer firebrands were produced and firefighters could have safely defended structures, losses of homes could have been reduced by 47 percent.

Finally, Cohen's (1999) paper does not address important values at risk other than structures. Fire effects to these values may last decades or more beyond the time needed to rebuild structures. These include loss of community or municipal water sources, loss of economic opportunities (jobs, businesses, and others), effects to USFS permittees, loss of recreational opportunities, decreased property values (regardless of whether structures were lost), damage to infrastructure, and long-term effects from flooding, mudflows, and other resource damage.

The EA states that the purpose of the Harris Park Fuels Management Project is to create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions. The EA also states that the proposed project is needed to reduce the risk, intensity, and hazards associated with a high-intensity wildland fire near the Harris Park community; improve forest health; and enhance ecological diversity in the project area. The alternative suggested by this comment does not address important values at risk other than structures.

15. Comment: Treatments should not occur in IRAs. Treatments in IRAs would not generally provide significant protection for private land. The treatments and road construction and use would negatively affect IRA values such as natural appearing landscapes with high scenic quality, reference landscapes, primitive recreation, habitat for species dependent on large undisturbed areas of land, and high quality or undisturbed soil, water, and air. Thinning stands would facilitate off-road vehicle use of IRAs. At least one action alternative that involves no treatments in IRAs should be considered. The IRAs should be approached as if the Roadless Rule had not been rescinded. (6-2, 11-2, 13-2, 14-2, 15-2, 16-2, 17-2, 18-2, 19-2, 20-2, 21-2, 22-2, 23-2, 24-2, 25-2, 26-2, 27-2, 28-2, 29-2, 30-2, 31-2, 32-2, 34-2,

36-2, 37-2, 38-2, 39-7, 40-2, 40-5, 41-2, 42-2, 43-2, 44-2, 45-2, 46-2, 47-2, 48-2, 49-2, 52-2, 54-2, 55-2, 60-2, 62-7, 64-3a, 65-3a, 68-2, 69-2, 70-2, 71-2, 72-7, 73-2, 74-2, 75-3a, 78-2, 86-2, 90-1).

Response: In response to this and other comments, the proposed and no action alternatives were blended for a third alternative. The third alternative eliminates all treatments in IRAs except within 1,000 feet of private lands. This reduced the extent of treatments in the IRAs by 50 percent to 739 acres. Treatments in IRAs within 1,000 feet of private lands have been retained to allow for fuel breaks and other treatments to provide protection for private property.

The No Action alternative did address no treatments in IRAs (see the EA). The action alternative of no treatments in IRAs was considered but eliminated from detailed study (see page 2-10 of the EA) because it does not meet the purpose of and need for the project. Under this alternative, 739 acres (50 percent) of the proposed treatments that would have been eliminated are within 1,000 feet of private lands where fuel treatments are needed to protect private property. Other treatments were part of strategic fuel breaks that are designed to slow fire spread and reduce extreme fire behavior in the event of a wildland fire. Avoiding treatments in IRAs would reduce or eliminate the effectiveness of these fuel breaks, and would fail to meet the purpose of and need for the project.

The proposed action does not include any construction of roads in IRAs (see pages 2-18 and 3-83 of the EA). Therefore, there would be no new road-related effects to IRA values. The potential for increased off-highway vehicle (OHV) use of IRAs was discussed on page 3-84 of the EA. By avoiding construction of roads in IRAs, the potential for new OHV use of these areas would be reduced. Law enforcement patrols and prompt closure of any new user routes would be needed in the future to protect IRA values. Monitoring of OHV use of treatment units and additional measures to restrict OHV use is a specific monitoring item discussed on page 2-23 of the EA.

IRA values were carefully considered in developing and modifying the proposed action. Factors considered in developing the proposed treatments in the IRAs included:

- *Proximity to private lands. All 739 acres of IRAs that would be treated are within 1,000 feet of private lands. Treatments are needed in these areas to reduce the risk of wildland fire to private property. As noted by numerous commenters, treatments close to private lands are an important component of reducing fire risk to private property.*
- *Strategic fuel breaks. The treatments proposed in IRAs are part of a landscape-scale network of strategic fuel breaks designed to protect private property and reduce the risk to firefighters and the public in the event of a wildland fire. Specifically, treatments in the IRA on the west side of Harris Park are critical for protecting this community. Prevailing winds could blow a fire down out of the Mount Evans Wilderness and untreated IRAs in the project area towards Harris Park. Treatments in the IRAs adjacent to private lands would provide a strategic fuel break to allow residents time to evacuate and firefighters to establish defensible positions around the community.*
- *IRA values. Although IRAs cover 39 percent of the project area, only 8 percent of the proposed treatments would take place in IRAs. While treatments would be feasible in a greater portion of the IRAs, many areas were removed from consideration because the potential to negatively affect IRA values was greater than the potential reductions in fire hazard that could be realized from treatment. All treatments in IRAs greater than 1,000 feet from private lands were eliminated, as discussed above.*

The management direction for roadless areas was evaluated in the EIS for the Forest Plan (USFS 1984a). IRAs in the project area were placed in management areas (MAs) that allow fuels management, although fuels management is not always the primary emphasis of the MA direction

(see pages 2-1 to 2-2 of the EA). The approved Forest Plan MA direction for the proposed treatment areas in IRAs emphasizes semi-primitive motorized recreational opportunities (MA 2A), rural and roaded-natural recreation (MA 2B), big game winter range (MA 5B), wood-fiber production and utilization for products other than sawtimber (MA 7D), and riparian area management (MA 9A). Therefore, treatments in the IRAs would be consistent with the Forest Plan.

Besides being consistent with the Forest Plan, the proposed project would also be consistent with the Roadless Area Conservation Rule (USFS 2001a), even though there is continuing legal uncertainty about the implementation of this rule. Under this rule, vegetation in an IRA may be treated if the responsible official determines that one of four circumstances exists including:

- *The treatment of vegetation is needed to a) improve threatened, endangered, proposed, or sensitive species habitat; or b) maintain or restore the characteristics of ecosystem composition and structure, such as reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period; and c) will maintain one or more of the roadless characteristics as defined in the rule.*
- *The treatment of vegetation is incidental to the implementation of a management activity not otherwise prohibited by the rule.*
- *The treatment of vegetation is needed and appropriate for personal or administrative use.*
- *Roadless characteristics have been substantially altered in a portion of an inventoried roadless area due to the construction of a classified road and subsequent timber harvest.*

The first circumstance does exist in the IRA portions of the project area. The EA (page 1-5) states that: “The purpose of the Harris Park Fuels Management Project is to create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions.

The need for the proposed project is driven by forest conditions. Historic fire suppression has created forests that are more susceptible to a large-scale, high-intensity wildfire. The proposed project is needed to reduce the risk, intensity, and hazards associated with a high-intensity wildland fire near the Harris Park community; improve forest health; and enhance ecological diversity in the project area. ”

The project would meet the first circumstance by modifying the unnaturally dense tree stands that have made the forest in the project area vulnerable to large stand-replacing fires. Treating vegetation on 9,531 acres in this high fire hazard zone would reduce the risk of high intensity wildland fires in the watershed. The treatment area is surrounded by large areas of private property and thousands of homes, businesses, and other structures. This project would have beneficial long-term effects by reducing the risk for future wildland fire events like those that recently occurred in the area.

The project also meets the first circumstance by maintaining or improving one or more roadless characteristics by thinning the ponderosa pine forest and creating openings similar to historic conditions. This would have positive effects on overall forest health and sustainability. The future landscape condition in the treated ponderosa pine stands, including some IRAs, would be more sustainable and similar to conditions prevalent before European settlement. Before logging, grazing, and fire suppression, ponderosa pine stands in the project area were less dense, more open, and less vulnerable to diseases, insects, and large, intense wildland fires. The proposed project would create a more heterogeneous natural landscape with diverse habitats that would have long-term beneficial effects for some species of wildlife.

16. Comment: The comment period should be extended, preferably for 60 days, to allow a local task force to work collaboratively with the South Park [sic] Ranger District. This task force would address questions and concerns raised during the comment period and develop specific modifications to Alternative 1 that address local needs and values in addition to effects to the community (35-1).

Response: The USFS believes that sufficient time was allowed for public comments on the proposed project. The USFS has worked closely with the Platte Canyon FPD and CSFS, and held public meetings to ensure that local needs and values, as well as the effects to the community, were considered in developing the proposed action and in the analysis of effects. In addition, public concerns about the project would be incorporated into the proposed action to the extent practicable in the Decision Notice and Finding of No Significant Impact (if issued). Some of these changes are discussed in the responses to other comments in this document.

17. Comment: A new action alternative should be considered. Specific components of the new alternative should include:

- Requiring a diameter cap (maximum diameter-at-breast-height [dbh] of harvested trees) of 16 inches, prohibiting new road construction, limiting treatments to the immediate surroundings of private lands, and limiting treatments in the IRAs (91-1c, 93-1c).

Response: As noted on page 2-11 in the EA, “the removal of smaller, suppressed, and intermediate trees would be a priority, while the oldest and largest trees in the stand would generally be retained”. No issue requiring a diameter cap was identified. There are many larger trees, including some with dbh greater than 16 inches, that contribute to high fuel loads and high fire risk. Rather than setting an arbitrary diameter cap, the emphasis of each treatment would be placed on creating a remaining stand structure that has a reduced fire risk. Retaining all trees over a certain size limit would restrict the ability of the proposed action to meet the purpose of and need for the project. See the response to Comment 29 for a discussion of prohibiting new road construction. See the response to Comment 14 for a discussion of limiting treatments to the immediate surroundings of private lands. See the response to Comment 15 for a discussion of limiting treatments in IRAs.

- Base the alternative on the Fuel Discontinuity Network and Plant Association Groups. The alternative should focus on three categories: 1) features that are currently fire resilient; 2) features that can readily be made fire resilient; and 3) strategic connections (91-7a, 93-7a).

Response: The specific stand-type treatments discussed on pages 2-12 through 2-18 and shown in Figure 2-1 in the EA are based on the mix of dominant and other tree species that are present. The proposed action is designed to reduce wildland fire hazard on a landscape scale by identifying fuel breaks that connect with other agencies’ planned treatments. For example, Treatment 2 (page 2-16 in the EA) would use existing features that are fire resilient and modify adjacent features that can readily be made fire resilient to create fuel breaks across the landscape. Each of the other treatments would also contribute to connecting a network of strategic fuel breaks across the landscape.

- The following elements should be retained under this new alternative: 1) all living trees and snags older than 100 years or with a dbh of 12 inches or greater; 2) all dominant and co-dominant trees of both early and late successional species; 3) at least 40 percent of a younger stand’s basal area and 60 percent of an older stand’s basal area; 4) coarse woody debris at or above the level recommended by Graham et al (1994); and 5) at least 30 percent of the treatment area should be in an unthinned condition (91-7b, 93-7b).

Response: *See the response to the diameter cap component of this proposed alternative above, as well as the response to Comment 27. Retaining all trees older than 100 years, greater than 12 inches dbh, and all dominant and co-dominant trees, as well as the basal area limits suggested would prevent the proposed treatments from substantially reducing fire risk in the project area. Snags and coarse woody debris would be retained at or above levels required by Forest Plan standards and guidelines (USFS 1984a). In response to several comments (for example, see the response to Comment 15), the proposed action has been modified. Sixty-four percent of the project area would not be treated because of the modifications made to the proposed action. This is an increase from 58 percent, as discussed on page 2-11 in the EA.*

- Protecting home sites. Fifty percent or more of funds should be spent on homeowner education, technical assistance, and low-interest loans and grants to create defensible space around homes as requested by landowners (91-7c, 93-7c).

Response: *Treatments around homes on private lands are outside of the scope of the proposed project. Homeowner education and assistance, as well as creation of defensible space on private property, are important components of the CWPP prepared by the Platte Canyon FPD. The actions identified in the CWPP would be implemented collaboratively between the Platte Canyon FPD, CSFS, and interested private landowners.*

- Creating community protection zones and defensible spaces in a zone that extends approximately ¼ mile from structures. Homeowners should be required to implement effective home site treatments before funds are invested in the community protection zone (91-7d, 93-7d).

Response: *Treatments on private lands are outside of the scope of the proposed project. The creation of community protection zones and defensible space on private property are important components of the CWPP prepared by the Platte Canyon FPD. The actions identified in the CWPP would be implemented collaboratively between the Platte Canyon FPD, CSFS, and interested private landowners. Much of the area designated as Treatments 1A, 1B, 1C, and 1D on USFS lands would function as community protection zones and defensible spaces because they are within ¼ mile of structures.*

- Fuel breaks should only be located along existing and maintained roads and along private property inholdings with approval of the property owner (91-7e, 93-7e).

Response: *Treatments on private lands are outside of the scope of the proposed project. The creation of fuel breaks on private property is an important component of the CWPP prepared by the Platte Canyon FPD. The actions identified in the CWPP would be implemented collaboratively between the Platte Canyon FPD, CSFS, and interested private landowners. On USFS lands, some areas that need treatment to contribute to strategic fuel breaks are not accessible by existing roads. Removing these areas from the proposed action would reduce the effectiveness of the project. Such an alternative would fail to meet the purpose of and need for the project because it would prevent the creation of treatment continuity across the landscape. The risk to private property would not be substantially reduced from the current condition.*

- Natural fire regimes should be restored through prescribed fire and wildland fire use. Spring burning should not be used. Minimum Impact Suppression Tactics (MIST) should be used when fire suppression is required. Fire suppression should not be used in roadless areas and vegetation types where the fire regime has not been significantly altered (91-7f, 93-7f).

Response: *See the response to Comment 2 for a discussion of restoring natural fire regimes. Wildland fire use, while an important tool in fuels reduction, is neither required or appropriate in the project area because of the large number of residences and other improvements on nearby private lands, as well as air quality and other resource concerns. For the same reason, MIST are not likely to be appropriate suppression tactics. Likewise, avoiding fire suppression in IRAs and vegetation types with natural fire regimes would not be appropriate. In several cases, IRAs are directly adjacent to private lands with residences and other improvements. Each of these suggestions would pose unacceptable risks to private property, public safety, and natural resources.*

- New road construction and road improvements should not be used. Feller/bunchers, mastication machines, and other heavy equipment should not be used to protect soils and water quality (91-7g, 93-7g).

Response: *See the response to Comment 29 for a discussion of the need for road construction. Heavy equipment would likely be used for some of the proposed mechanical treatments. Prohibiting these types of equipment would substantially increase the cost and reduce the effectiveness of the proposed project. Monitoring of previous and ongoing mechanical treatments on the same soil types has shown that effects to soils and water quality would be minimal (Libohova 2004), as discussed on pages 3-35 through 3-38 in the EA.*

- Grazing allotments should be permanently retired because grazing reduces fuels, preventing frequent, low-intensity fires. Grazing also promotes fuel loads to accumulate, allowing more frequent, high-intensity fires. Livestock grazing promotes areas being outside of their historic range of variability. The presence of livestock reduces opportunities for landscape scale prescribed burning (91-7h, 93-7h).

Response: *Changes to grazing allotments are outside of the scope of the proposed project. The grazing management plan (USFS 2005a) for allotments in the project area was recently completed and approved (USFS 2005b).*

- Use monitoring and adaptive management to correct adverse effects to resources from treatments (91-7i, 93-7i).

Response: *Proposed monitoring activities are discussed on page 2-23 in the EA. “Adaptive management would be used to develop stand prescriptions during implementation based on actual site conditions” (page 2-11 in the EA).*

- Add mitigation to manually remove all invasive plants before thinning and burning (91-7j, 93-7j).

Response: *A mitigation measure has been added to address survey and treatment of noxious weeds (see response to Comment 41).*

- Monitor vegetation before and after treatments to establish treatment effects and determine if treatment objectives are being achieved (91-7k, 93-7k).

Response: *This monitoring item was included in the proposed action (page 2-23 in the EA).*

- Effectively obliterate roads to eliminate motorized traffic and exclude vehicles to reduce the potential for human-caused fires (91-7l, 93-7l).

Response: *These suggestions have been incorporated into revised project design standards for the proposed action (see the response to Comment 29).*

Mechanical Treatments

18. Comment: Timber sales and logging large trees are not appropriate. Other means should be used to protect homes. The EA fails to justify the cutting of large trees or that any reduction in crown density is necessary (40-6, 56-1, 91-2b, 93-2b).

Response: *The role of timber sales in the proposed project is explained in the EA. In summary, while commercial timber products may be sold to help offset the costs of the project, timber production would not be emphasized. The primary goal for all proposed treatments is fuel management, which targets trees that are typically smaller than commercial size. The removal of smaller, suppressed, and intermediate trees would be a priority, while the oldest and largest trees in the stand would generally be retained, but some co-dominant trees may be removed to reduce canopy density.*

The proposed openings are not intended to optimize timber production but rather to create a mosaic of different stand characteristics across the landscape. This mosaic forest structure would provide fuel breaks and diverse wildlife habitats. The openings would generally be located on south and west exposures where openings historically would have persisted for decades under natural fire regimes.

The EA includes the project design standard, “Treatments would retain larger trees to the extent possible. Specifically, old growth stands would only be treated in a manner that maintains or restores pre-fire suppression old growth stand characteristics. Trees with old growth characteristics would be protected during burning and thinning operations except when severely infected with insects or diseases, or when retention would compromise the effectiveness of the proposed treatments” (page 2-20 in the EA). In addition, no old growth stands have been identified in the project area (page 3-102 in the EA). Finally, no timber harvest would occur in IRAs.

19. Comment: The project area is subject to very strong winds at some times of the year. The Forest Service should demonstrate that treatments are designed to minimize wind-throw. Concentrating on removing smaller trees would reduce the possibility of wind-throw, but the EA states that dominant and co-dominant trees may also be removed (64-10, 65-10, 75-10).

Response: *Most of the treatment areas are located at the lower elevations of the project area, which are more sheltered than the higher ridges and less subject to windthrow events. Windthrow can be a substantial problem in lodgepole pine forests, especially when soils are shallow and trees grow in dense stands (Anderson 2003), as is the case in the project area. The treatments that are proposed for lodgepole pine stands were designed to address this issue. Small patch cuts are preferred over thinning in lodgepole pine because the incidence of windthrow is lower. Light thinning of smaller trees is possible without increasing the windthrow, but removal of some co-dominant and dominant trees would be needed to reduce connectivity in the canopy. In these areas, small patch cuts are more effective at reducing canopy connectivity while minimizing windthrow risk.*

20. Comment: Some of the treatment areas are well over one mile from any private property (64-2d, 65-2d, 73-11, 75-2d).

Response: *The only treatment areas more than one mile from private lands are several ponderosa pine stands on the north side of Harris Park (Figure 2-1 in the EA) that are designated for Treatment 3 (pages 2-16 and 2-17 in the EA). These stands are proposed for treatment because they are contiguous with similar stands being treated within one mile of private lands and because treatment*

is supported by the need to move these stands back towards their historic range of variability. On Figure 2-1 in the EA, it appears that other stands along the North Fork of North Elk Creek are more than one mile from private lands. However, there are private lands located immediately north of the project area (see Figure 1-1 in the EA). This is an important treatment area because it provides a strategic fuel break in the event that a fire burns from the Harris Park area to the north on prevailing winds. The 2002 Black Mountain fire demonstrates the potential for this to occur. That fire burned very close to private lands and caused the evacuation of more than 1,700 residences in Brook Forest, Black Mountain, and other communities southwest of Evergreen (Hartman 2002). Only aggressive and costly fire suppression efforts prevented damage to private lands.

Prescribed Fire Treatments

21. Comment: The EA should describe the prescribed burning and its effects in more detail. How much acreage would be burned, how often, at what time of year, under what weather (particularly wind) conditions, and how close these treatments would be to private property should be discussed (35-2, 64-9a, 65-9a, 75-9a).

Response: *Prescribed fire treatments are discussed on page 2-12 in the EA. The potential effects of prescribed fire are included in the set of effects that are discussed for each resource in Chapter 3 in the EA. Additional information about the type and extent of prescribed fire use is not known because the exact nature of fuels conditions, including activity-generated fuels, is not known. Before any prescribed fire is used, detailed burn plans would be completed and approved. Burn plans address such issues as burn size, methods, frequency, timing, acceptable weather conditions, contingency planning, public and firefighter safety, and other issues.*

22. Comment: The effects of pile burning and prescribed (broadcast) burning done to manipulate vegetation should be separated (64-9b, 65-9b, 75-9b).

Response: *The effects of pile burning and broadcast burning cannot be separated because these two types of prescribed fire would not be mutually exclusive. In some areas of heavy fuel accumulation, pile burning may be used to reduce heavy activity fuel loads, followed by broadcast burning to reduce widespread surface fuel loads. In other areas, only one or the other type of prescribed burning may be used and in some areas, no burning may be used. “The exact treatments to be used and their locations would be determined after [mechanical] treatments are completed, depending on the level of natural and activity fuels in each stand” (page 2-12 in the EA).*

23. Comment: Prescribed burning needs to minimize risk to private property. What precautions would be in place to prevent a burn from becoming out of control or from smoldering and causing a fire? No burning should be done near homes, except possibly in winter to get rid of slash piles (35-3, 39-6, 62-6, 72-6).

Response: *“Broadcast burning would generally not be used in units directly adjacent to private property or other improvements, especially where private lands could be at risk. Pile burning alone would be used in areas of fuel accumulation where broadcast burning is not appropriate. A combination of pile and broadcast burning would be used where necessary to maintain control” (page 2-12 in the EA). Before any prescribed fire is used, detailed burn plans would be completed and approved. Burn plans address such issues as burn size, methods, frequency, timing, acceptable weather conditions, contingency planning, public and firefighter safety, and other issues.*

24. Comment: There needs to be good communication and places (websites, phone numbers, etc.) where the public can be informed daily during burns (33-4).

Response: *One mitigation measure in the EA (page 2-22) states “The public would be notified in accordance with state air quality regulations before prescribed burning activities.” This measure has been modified in response to this comment and reads as follows:*

The public would be notified in accordance with state air quality regulations before prescribed burning activities. Notification of prescribed burns would be posted on the PSICC website, community websites (such as pinecam.com), and on bulletin boards around the community. Information would be updated to the extent possible while these activities are ongoing. In addition, information would be available in person or over the phone at the South Platte Ranger District Office.

25. Comment: How would burning be conducted in lodgepole stands and what if anything is expected to grow in these burned areas (64-6c, 65-6c, 75-6c)?

Response: *Burning in lodgepole pine stands may include pile burning, broadcast burning, or a combination of both. In some stands, no burning may occur. In general, pile burning would be favored to reduce activity fuels. Broadcast burning would generally be avoided to prevent extensive lodgepole pine regeneration. Vegetation recovery after burning is expected to include a variety of grass and forbs, as well as aspen regeneration where aspen is currently present as a component in these stands.*

Specific Stand-Type Treatments

26. Comment: Page 2-16 states that “Good Neighbor Cooperative Agreements” would be used in areas not immediately adjacent to private land? Is this correct? (64-13c, 65-13c, 75-13c).

Response: *The referenced statement on page 2-16 in the EA states: “Treatments 1C and 1D would be conducted through Good Neighbor Cooperative Agreements between the USFS and CSFS. These areas are not immediately adjacent to residences and other improvements on private lands. In addition, access across USFS lands for treatment is not available. The USFS recognizes the need to treat these areas, but has given these areas a lower priority because of the lack of access across public lands and lower risk to residences and other improvements on private lands. The USFS is committed to working with the CSFS, other agencies, and private landowners to treat these areas within the time frame for this project.”*

Good Neighbor Cooperative Agreements (see pages 2-4, 2-5, 2-15, and 2-16 in the EA for further discussion of Good Neighbor Cooperative Agreements) would be used to conduct treatments within 1,000 feet of private lands. The highest priority for treatment would be placed on areas near residences and other improvements on private lands (Treatments 1A and 1B, as explained on page 2-15 of the EA). In areas where there are no residences or other improvements on private lands, and where access across public lands is not available, a lower priority for treatment is assigned (Treatments 1C and 1D, as explained on page 2-16 in the EA and partially repeated above). Good Neighbor Cooperative Agreements would not be used more than 1,000 feet from private lands.

27. Comment: The description of proposed treatments should estimate the desired percentage of basal area removal by species (64-13d, 65-13d, 75-13d).

Response: *Basal area removal by species is expected to be highly variable across individual treatment units and the project area. The mosaic of vegetation present in the treatment units does not lend itself to specific statements of treatment intensity. With the mosaic of different vegetation types present, the different goals of each treatment type, and the range of resource values in the project*

area, treatments would be designed to create the desired mosaic that corresponds to the natural range of variability. For example, some patches of higher basal area may be left to provide habitat for Abert's squirrel, hiding and thermal cover for elk and mule deer, foraging and denning habitat for lynx, or other resource values. Areas of lower basal area would also be created as fuel breaks or other openings.

28. Comment: Removing insect and disease infested or killed trees should receive primary emphasis (39-1, 62-1, 72-1).

Response: Removal of insect and disease infested trees can be an important component of improving forest health in the project area. Small pockets of trees infested by insects (primarily mountain pine beetle) and disease are present in the project area and would be removed as part of the proposed project where they occur in treatment areas. Some trees killed by insects or disease would be left as snags for wildlife and other resources where they would not contribute to spreading infestations or compromise the effectiveness of the treatments.

Transportation System

29. Comment: Construction of temporary roads should be eliminated or the extent of temporary roads should be reduced. The EA fails to consider an alternative that avoids construction of temporary roads. Building 30 miles of road, even if only temporary, would invite OHVs into the area, causing negative effects to soils, water quality, and wildlife habitat. If recreational use occurs on such roads, they would be difficult to close and obliterate. Additional motor vehicle access means that the chances of fire ignitions increase. The USFS is likely to have difficulties preventing motorized use of the roads during and after the project. To ensure closure to public use, gates should be placed at the beginning of the new temporary roads, where practical, to discourage public access into these areas. Temporary roads should be obliterated as soon as possible after completion of treatments and deadlines for road obliteration should be set (2-3, 5-3, 6-3, 11-3, 13-3, 14-3, 15-3, 16-3, 17-3, 18-3, 19-3, 20-3, 21-3, 22-3, 23-3, 24-1, 25-3, 26-3, 27-3, 28-3, 29-3, 30-3, 31-3, 32-3, 34-3, 36-3, 37-3, 38-3, 39-8, 40-3, 41-3, 42-3, 43-3, 44-3, 45-3, 46-3, 47-3, 48-3, 49-3, 51-4, 51-6, 52-3, 52-4, 54-3, 55-3, 62-8, 64-4b, 65-4b, 66-2, 68-3, 69-3, 70-3, 71-3, 72-8, 73-4, 74-3, 75-4b, 78-3, 86-3, 89-2, 90-2, 91-1b, 92-4, 92-6, 93-1b).

Response: Elimination of the use of temporary roads would prevent access to large portions of the project area, including many areas within 1,000 feet of private lands. Such an alternative would fail to meet the purpose of and need for the project because it would prevent the creation of treatment continuity across the landscape. The risk to private property would not be substantially reduced from the current condition.

Complete exclusion of OHVs from post-treatment units is unrealistic; however, the benefits of improving forest health and reducing hazardous fire behavior outweigh the potential negative effects of an increase in OHV use. To address the potential for OHV use of temporary roads, the project design standards for temporary roads (page 2-20 in the EA) have been revised as follows:

- *Roads constructed for temporary access into a treatment unit would be guided by the principles of temporary road construction. In general, these roads are short and used where the topography and drainage requirements are minimal and the potential effects to other resources are low.*
- *Temporary roads would only be constructed immediately before they are needed to access particular treatment units.*

- Public motorized use of temporary roads would be prohibited at all times by a Forest Order and the use of gates or other closure devices.
- Temporary roads serve no long-term need; therefore, they would be closed by the purchaser, contractor, or USFS after use. Temporary roads would be closed upon final completion of the project or when no longer needed.
- No more than 10 miles of temporary roads would be open in the project area at any time during project implementation.

Closure of roads would be done with techniques that have been shown to be effective in restricting OHV use. Roads would be closed using physical barriers to prevent future use by motorized vehicles. Treatment units, and especially closed temporary roads in treatment units, would be monitored for OHV use. Additional measures would be developed or used to restrict OHV use and prevent resource damage if OHV use or resource damage caused by OHVs is observed (page 2-23 in the EA).

30. Comment: On page 2-18, the EA states that construction may include vegetation clearing and minor earth movement. What would the latter entail? (64-4c, 65-4c, 75-4c).

Response: Vegetation clearing would involve cutting and removing vegetation from the travel way, as well as limbing branches from trees adjacent to the travel way to allow safe vehicle passage. Minor earth movement would involve minor blading or creation of cut and fill slopes less than three feet in height.

31. Comment: Where would temporary roads be built? Showing where they would be constructed would be helpful to the public in understanding the possible effects (64-4d, 65-4d, 75-4d).

Response: The locations of proposed temporary roads are not known. Their exact locations would be determined during layout of individual treatment units based on local topography, the type of proposed treatment, and the type of equipment that would need to access the area.

32. Comment: If the project would be implemented over a 5- to 7-year period, it would be difficult, if not impossible, to have only 10 miles of temporary road open at any one time (64-4a, 65-4a, 75-4a).

Response: Activities in each individual treatment unit would not require the entire 5- to 7-year period, but would most likely occur over one or perhaps two years. Groups of adjacent or nearby units would be treated at the same time, so that one temporary road could be used to access several units. Once treatments in these areas are complete, the temporary roads would be closed before new roads are constructed to access new units.

33. Comment: Roads should not be constructed in roadless areas (31-4, 35-4, 66-3).

Response: As stated on page 2-18 in the EA (and repeated in page 3-83 of the EA), “No new NFSRs would be constructed” and “No temporary roads would be constructed in IRAs.” Therefore, no roads would be constructed in roadless areas.

34. Comment: How would it be possible to treat roadless areas without building roads? (64-3b, 65-3b, 73-3, 75-3b).

Response: As stated on page 3-83 in the EA, “Mechanical equipment would be used in these areas [IRAs], but construction of roads, including temporary roads would not be needed to allow for equipment access.” Modern fuel treatment equipment can travel overland in many areas without the

need for road construction. Some portions of the IRAs proposed for treatment may not be accessible to mechanical equipment. In these areas, hand treatments can be used, prescribed fire can be applied without mechanical pre-treatment, and some areas may not be treated.

35. Comment: No new permanent roads should be constructed (51-5, 92-5).

Response: As stated on page 2-18 in the EA, “No new NFSRs would be constructed.” NFSRs are permanent roads. Therefore, no new permanent roads would be constructed.

36. Comment: Park County Road (PCR) 43 to the left of the ‘Y’ (at PCR 47) should be paved to reduce noise pollution from the project (59-1).

Response: Paving a county road outside the project area is outside the scope of the proposed project.

37. Comment: Best Management Practices (BMPs) should be implemented if any roads are constructed in or near riparian areas and wetlands. Affected riparian areas should be restored to pre-project conditions or better (51-8, 90-3, 92-8).

Response: All treatments, including temporary road construction, would follow the project design standards in the Watershed Conservation Practices Handbook (WCPH) (USFS 2001b) to minimize effects to riparian areas. These design standards are effectively BMPs. A 1985 agreement between the USFS and the Environmental Protection Agency mandated the Water Resource Evaluation of Non-point Silvicultural Sources as official guidance to control non-point sources of water pollution. Its controls were used to construct many of the standards and design criteria in the WCPH. Others are adapted from Federal and State BMPs and the work of other Regions and agencies. Each of the design standards in the WCPH specifically discusses restoration as one component of proper stream and riparian area management.

Project Design Standards

Riparian Areas

38. Comment: The EA states that all treatments near riparian areas would follow Forest Service Handbook (FSH) 2509.25, the WCPH. However, the WCPH is being revised and may be completed before the decision notice is issued for Harris Park. The USFS should state which version of the WCPH would be used and describe in detail how it would sufficiently protect riparian and soil resources (64-6a, 65-6a, 75-6a).

Response: The most current version of the WCPH (currently FSH 2509.25, Watershed Conservation Practices Handbook – R2 Amendment 2509.25-2001-1 [USFS 2001b]) would be used for the proposed project. As noted in the response to Comment 37, the project design standards in the WCPH would be used as BMPs for all components of the proposed project.

39. Comment: Currently, Alternative 1 proposes a 100-foot buffer around riparian areas. The buffer area should be increased, where practical and necessary, to minimize damage to riparian areas. Consideration should be given to areas that are particularly steep, where erosion is likely to occur with increased disturbance (51-7, 92-7).

Response: The 100-foot buffer around riparian areas refers to the Water Influence Zone (WIZ) as defined in the WCPH. This buffer is the minimum area to be protected and includes adjacent unstable and highly erodible soils in the area to which this buffer is applied. During on-the-ground layout of

treatment units, the appropriate WIZ, which may exceed 100 feet, would be established to protect riparian areas.

40. Comment: Disturbance in riparian areas should be re-vegetated using willow and other native plants (90-3).

Response: All treatments, including those in riparian areas, would follow the project design standards in the WCPH to minimize effects. Each of the design standards in the WCPH specifically discusses restoration as one component of proper stream and riparian area management. Willows and other native plants may be used as appropriate in restoration effort, though there is no requirement to do so.

Noxious Weeds

41. Comment: The USFS should conduct intensive weed surveys for each proposed road route and each proposed treatment unit shortly before work begins. Any weed populations should be eradicated (64-11a, 65-11a, 75-11a).

Response: As stated on page 3-2 of the EA, continued treatment of known infestations and continued survey for new infestations of noxious weeds would continue. Furthermore, a project-specific mitigation measure was included in the EA (page 2-21), specifying that any infestations of weeds would be treated by the USFS following project completion and the contractor/purchaser would be required to clean all equipment that operates off road before the first entry into the project area.

Wildlife

42. Comment: The Forest Plan requires retention of deer and elk hiding cover on 60 percent or more of the perimeter of all natural and created openings, along 75 percent of the edges of arterial and collector roads and along 40 percent of streams and rivers. In addition, 40 percent of a diversity unit should be maintained in hiding cover and 20 percent should be in thermal cover. Treatment units should be designed to comply with these requirements (64-5e2, 65-5e2, 75-5e2).

Response: As stated on page 2-21 of the EA, project design and implementation would follow Forest Plan standards and guidelines (USFS 1984a) that relate to wildlife, specifically including those cited in this comment concerning hiding and thermal cover. Treatments would be designed to comply with these standards and guidelines during on-the-ground layout of treatment units.

43. Comment: Habitat capability for deer and elk should be maintained at 80 percent of potential or greater in Management Area (MA) 5B and habitat effectiveness of at least 90 percent should be maintained during winter. In addition, at least 50 percent of the diversity unit should be maintained in hiding cover, and 30 percent in thermal cover (64-5e3, 65-5e3, 75-5e3).

Response: As stated on page 2-21 of the EA, project design and implementation would follow Forest Plan standards and guidelines (USFS 1984a) that relate to wildlife, specifically including those cited in this comment concerning habitat effectiveness, hiding cover, and thermal cover. Treatments would be designed to comply with these standards and guidelines during on-the-ground layout of treatment units.

Habitat effectiveness for deer and elk and habitat capability for other Management Indicator Species (MIS) were assessed in the Harris Park Fuels Management Project MIS Report. The Habitat Capability (HABCAP) model was selected by Region 2 of the USFS to assess the effects of habitat alterations on wildlife resources. HABCAP rates habitat conditions to indicate the relative potential

value of the habitat for MIS. Habitat potential is a function of the landscape's capability of providing and sustaining habitat needs for each species. Because it is unrealistic to expect any one given area to simultaneously provide optimum habitat conditions for all MIS, HABCAP calculations were run using sustainable conditions for the project area as the baseline. The definition of sustainable conditions was based on the work of Brown et al. (1999), Foster Wheeler (1999), Kaufmann et al. (2000), and other studies of vegetation patterns under pre-fire suppression conditions. Fire suppression and other management actions in the project area have altered the fire regime, and consequently the forest structure, such that stands are much denser than in the past. A landscape at its optimum sustainable condition would by definition have a Habitat Capability Index of 100 percent. The HABCAP results for the project area include some current and future values greater than 100 percent, which indicate that the associated forest conditions may not be sustainable.

In MA 5B, the current habitat effectiveness for deer is 1.12 in the summer and 1.53 in the winter. This would change to 1.19 in the summer and 1.68 in the winter after implementation of the proposed action is complete, a slight increase from the current condition. In MA 5B, the current habitat effectiveness for elk is 1.15 in the summer and 1.41 in the winter. This would change to 1.19 in the summer and 1.55 in the winter after implementation of the proposed action is complete, a slight increase from the current condition. Values in excess of sustainable condition (greater than 1.00) are a function of the extensive availability of cover habitat, adequate availability of forage, and minimal road effects because of the low open road density in this MA. Current and future habitat effectiveness in MA 5B in the project area exceeds the Forest Plan standards for both deer and elk.

44. Comment: Calving or fawning areas should be protected from habitat modification and disturbance from May 15 to June 30. Known calving areas should continue to be protected. Human activity in treatment areas should be restricted from May 15 to June 30 (51-10, 64-5e4, 65-5e4, 75-5e4, 92-10).

Response: As stated on page 2-21 of the EA, project design and implementation would follow Forest Plan standards and guidelines (USFS 1984a) that relate to wildlife, specifically including those cited in this comment concerning calving and fawning areas. Treatments would be designed to comply with these standards and guidelines during on-the-ground layout of treatment units.

45. Comment: If any active or inactive goshawk nests are found during pre-treatment surveys, treatments should be re-designed to maintain the surrounding forest structure needed by this species. Patch cutting should not be done in post-fledging areas (PFAs). Light removal of understory trees would be the only acceptable thinning in PFAs. The other recommendations of Reynolds et al. (1992) should also be applied (64-5g, 65-5g, 75-5g).

Response: As outlined on page 2-22 of the EA, a goshawk nest survey would be conducted in potential goshawk habitats before ground-disturbing activities are conducted, and mitigation measures would be implemented for any historic or active nests. These measures would conserve or enhance site conditions and would enhance prey species habitats by maintaining vegetative diversity and striving for a balance of structural stages in PFAs.

The recommendations for goshawk management developed by Reynolds et al. (1992) should not be applied as a "cookbook" to Region 2 because habitat types and forest conditions differ, both between Region 2 and 3 and among the Forests in Region 2 (Kennedy 2003). For example, forest composition and fire regimes are different, and the growing season is shorter and precipitation is higher and timed differently in the project area, compared with much of the ponderosa pine habitats in Region 3. Region 2 and the PSICC have never officially adopted the recommendations of Reynolds et al. (1992). Nevertheless, certain components of their goshawk management recommendations have been incorporated into mitigation measures for the proposed project, as discussed above and on page 2-22

in the EA. These include protection of a nest area and the incorporation of goshawk habitat preferences into treatment design in these areas. The exact silvicultural prescriptions and desired stand conditions would not be known until after nest stands and post-fledging areas (PFAs) are designated.

46. Comment: The Forest Plan requires retention of two turkey roost tree clumps per section in ponderosa pine sale areas (64-5h, 65-5h, 75-5h).

Response: Turkeys are not known to occur in the project area. However, this Forest Plan standard and guideline (USFS 1984a) would be met because the requirement for Abert's squirrel nest tree clumps would provide the same habitat structure that turkeys use for roosting.

47. Comment: How would habitat requirements for cavity nesting birds and small mammals be addressed in each area during implementation (35-10, 90-5)?

Response: Project design and implementation would follow Forest Plan (USFS 1984a) standards that relate to snags and coarse woody debris (page 2-19 in the EA).

48. Comment: What methods would be used to minimize effects to winter range game habitat during project implementation (35-11)?

Response: Several of the standards and guidelines included in the project design standards for wildlife on page 2-21 of the EA address big game forage and cover habitats specifically in big game winter range. As discussed in the response to Comment 2 under the Project Design Standards heading, Wildlife sub-heading, the proposed action would improve habitat effectiveness for deer and elk in MA 5B (big game winter range emphasis). Similar improvements would occur in all other MAs in the project area, as discussed in the MIS report.

Treatment Operations

49. Comment: The large amount of slash treatment necessary for the proposed project would be problematic because slash would be much more easily ignitable than the existing forest. There should be a mitigation measure limiting how much acreage can be covered with slash, whether piled or not, before work is allowed to begin in additional treatment units (64-8, 65-8, 75-8).

Response: The exact methods and timing of slash disposal are not known at this time and would be developed during on-the-ground treatment unit layout. For this reason, no mitigation measure for slash disposal has been developed specifically for this project. The general intent of slash disposal would be to minimize the temporary increase in fire danger. Slash disposal would generally occur in each treatment unit as quickly as possible after mechanical treatments. In some cases, slash treatment would occur during treatment (for example, when chipping is used as the primary method of slash disposal). When pile burning is used, slash would be piled as part of the mechanical treatment. Pile and broadcast burning would only occur under conditions that allow for safe and efficient burning operations. Therefore, slash in areas planned for burning may be present for several months until the proper conditions are present. In areas where personal use firewood is made available for local residents, a permit system would be used that would specify slash treatment requirements (for example, requiring hand piling of slash). In accordance with the WCHP (FSH 2509.25, section 14.2a), up to 90% of fine slash will be retained in some areas with thin topsoil or soil with low organic matter content. Also, any machine piling of slash will be conducted in a manner that leaves topsoil in place and avoids displacing soil into piles or windrows (FSH 2509.25, section 14.2b).

Mitigation

Cultural Resources

50. Comment: Would treatment areas be surveyed for cultural resources before the project begins (33-3)?

Response: *As stated on page 3-92 of the EA, "... the PSICC would complete cultural resource inventories in the project area before conducting any management activities." The Forest Service will also comply with the "Programmatic Agreement among the Advisory Council on Historic Preservation, the Colorado, Wyoming, south Dakota, Nebraska, and Kansas State Historic Preservation Offices, and the USDA Forest Service, Rocky Mountain Region Regarding the Implementation of the Prescribed Burn Program" (FS Agreement No. 01-MU-11020000-015).*

Noxious Weeds

51. Comment: Weed surveys should be conducted for at least two years after completion of each unit and before and after road decommissioning (64-11b, 65-11b, 75-11b).

Response: *"Treated areas and access roads would be monitored for noxious weeds for at least two years after project completion" (page 2-23 in the EA).*

Wildlife

52. Comment: The mitigation measure requiring site-specific surveys for Abert's squirrels in mature ponderosa pine in MA 2A should be extended to all MAs. Surveys should also be conducted in pole-sized (habitat structural stage 3) ponderosa pine, as these trees are usually big enough and tall enough for squirrel habitat if interlocking crowns exist (64-5d2, 65-5d2, 75-5d2).

Response: *The Abert's squirrel survey mitigation measure was developed because HABCAP modeling showed that the Forest Plan habitat capability standard for Abert's squirrel (USFS 1984a) would not be met in MA 2A. The Forest Plan standards would be met in all other MAs because they are larger and because each contains mature ponderosa pine stands that would not be treated. For this reason, additional mitigation measures beyond those contained in the Forest Plan and referenced on page 2-21 in the EA are not necessary for MAs 2B, 5B, 7D, and 9A.*

However, in response to this and other comments, the proposed action has been modified. One modification was to exclude mature ponderosa pine stands in MA2A from all treatments. This modification would prevent any adverse effects to Abert's squirrels, but would reduce the overall treatment area by less than 0.1 percent because only 71 acres in MA2A provide preferred Abert's squirrel habitats. A new project design standard (see response to Comment 53) has also been developed in response to this and other comments. This new measure requires surveys for a number of species of concern, including the Abert's squirrel, in all treatment units.

53. Comment: Would nesting surveys be conducted each spring to avoid disturbing nesting birds (35-9)?

Response: *Specific nesting surveys would not be conducted each spring. However, each treatment unit would be surveyed for species of concern before treatments begin in the unit. Crews working on unit layout would alter the treatments to avoid effects to any nesting birds that are observed. The following new project design standard has been developed in response to this and other comments:*

- *Pre-treatment monitoring surveys would be conducted in each treatment unit. If sensitive sites are found, such as bird nests, active Abert's squirrel nesting or feeding areas, special aquatic sites,*

unique wildlife habitats, or rare plants, additional mitigation measures may be implemented to help protect these sites.

54. Comment: USFS personnel should notify and communicate with Colorado Division of Wildlife (CDOW) Field Operations Staff before conducting prescribed treatments. Avian nesting, wetland amphibian, and various terrestrial species surveys may allow for more specific recommendations on the timing and specific methods of treatment (51-9, 92-9).

Response: *The USFS is committed to minimizing the effects of the proposed project on wildlife and would communicate with CDOW staff as needed.*

Miscellaneous Questions and Concerns

55. Comment: Several commenters specifically voiced support for (1-1, 3-1, 8-1, 9-1, 51-11, 88-1, 92-11) or opposition (5-4, 39-2, 61-4, 62-2, 67-2, 72-2) to the proposed project.

Response: *Thank you for your comment.*

56. Comment: An environmental impact statement (EIS) should be prepared because of the size of the project and the fact that it would enter a roadless area (64-7b, 65-7b, 75-7b).

Response: *The USFS has considered doing an EIS as required under the Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA). CEQ created the EA to provide sufficient evidence and analysis for determining whether to prepare an EIS or a FONSI. The USFS prepared an EA for this project because:*

- *The analysis did not raise any significant issues with the proposed action;*
- *The EA is consistent with the Forest Plan and Roadless Area Conservation Rule; and*
- *This is not a precedent-setting project that would lead to significant effects for similar efforts elsewhere.*

Scoping for this EA was designed to ensure that a full range of public issues, opportunities, and concerns were identified and considered during development of the proposed action and EA (see pages 2-5 to 2-9 of the EA). The USFS mailed more than 3,000 newsletters to the public that included a detailed description of the proposed action, a map delineating the proposed treatment areas, and a request for input on the project. This detailed information was also presented at two public meetings. Many of those who chose to participate in scoping supported the project and did not raise concerns about potential significant effects and there were no requests before the EA was released to prepare an EIS.

The District Ranger is the responsible official for making the decision on the proposed project. A FONSI and Decision Notice and appropriate rationale are required if an EIS is not necessary.

As discussed in the response to Comment 15, the proposed project is consistent with the Forest Plan (USFS 1984a) and the Roadless Area Conservation Rule (USFS 2001a). These two planning documents examined the USFS's management effects on roadless areas, including the IRAs in the project area. The Harris Park Fuels Management Project EA tiered off the Forest Plan FEIS (USFS 1984b). This FEIS evaluated the effects of vegetation management and found that it would improve visual quality, enhance vegetation diversity and related diversity of wildlife, improve resistance to disease and insect outbreaks, reduce natural fuels, improve dispersed recreation opportunities, and

provide economic benefits. The USFS does not believe that preparing an EIS only because a public group has requested it is in keeping with NEPA policy. Agencies are required to the fullest extent possible “to make the NEPA process more useful to decision-makers and the public, to reduce paperwork and the accumulation of extraneous background data, and to emphasize real environmental issues and alternatives” (40 CFR §1500.2(b)).

57. Comment: Areas of forest that are currently wilderness area should not be treated (57-1).

Response: As stated on page 2-6 of the EA, no treatments would take place in the Mount Evans wilderness or within ½ mile of the wilderness boundary.

58. Comment: We incorporate by reference those comments submitted by Rocky Smith of Colorado Wild (58-5).

Response: See the responses to comments from letter 65.

59. Comment: There should be a big educational push so that people understand pre-planning fire control and pre-fire management (87-1).

Response: Thank you for your comment. The USFS believes that public education on fire and fuels management is an important component of the National Fire Plan and other recent initiatives, some of which as discussed briefly on pages 2-3 to 2-5 of the EA. For example, the USFS and partners from the CSFS and Denver Water recently held a public open house in the Upper South Platte area near Deckers to discuss forest health, wildfire hazard mitigation, and watershed protection with landowners and the public. However, extensive public education is beyond the scope of this proposed project and EA.

Affected Environment and Environmental Consequences

Vegetation

60. Comment: Contrary to what is portrayed in the EA, we found a healthy, diverse, and thinned forest in the proposed treatment area. The condition of the forest made us wonder if the persons who wrote the EA actually visited the area. At the very least, additional site visits to the area appear to be warranted (73-6).

Response: USFS and contractor IDT staff made multiple visits to the project area while developing the proposed action and analysis of effects. Past activities in the project area, including thinning, are discussed on pages 3-1 through 3-6 in the EA. In summary, a few areas were thinned in the mid-1980s for wildlife habitat improvement and several timber harvests were conducted in the 1970s and 1980s. Even in these areas, vegetation has grown to the point that the proposed project is needed to reduce fuels and fire danger. Some stands that are in relatively good condition would receive only light treatments designed to provide for reduced fire danger into the future. Other areas have not been treated since the original timber harvest between 1870 and 1900 (Foster Wheeler 1999). Many stands in the project area need extensive treatment to create sustainable forest conditions that are resilient to fire, insects, and diseases while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions.

61. Comment: It is doubtful the consultants understand the weed infestation the proposed project may cause (61-2).

Response: *The consultant IDT included resource specialists who have extensive experience with identification, survey, management, and control of noxious weeds. The project design standards, mitigation measures, and monitoring listed on pages 2-19 through 2-23 were designed specifically to address concerns about noxious weeds. Two additional measures have been developed to address concerns about noxious weeds and are listed in the response to Comment 44.*

62. Comment: It is difficult to tell the difference between ponderosa pine and Douglas-fir on EA Figure 3-2, the Vegetation Cover Types map (64-13a, 65-13a, 75-13a).

Response: *Unfortunately, the printing process appears to have blended the colors used for the ponderosa pine and Douglas-fir vegetation types. The version available on the PSICC web site (http://www.fs.fed.us/r2/psicc/spl/harrisspark_fuels.shtml) retains the original color. In general, the Douglas-fir dominated sites are limited to relatively small areas of north-facing slopes and valley bottoms widely scattered across the project area.*

63. Comment: Describe the expected regeneration and revegetation of treated areas (64-6b, 65-6b, 75-6b).

Response: *Regeneration and revegetation of treated areas would depend on the types of treatments used and the seed sources available in each treated area. In general, cover and diversity of grasses and forbs would increase over current levels as canopy cover is reduced. Regeneration of trees is also expected. In stands with a residual aspen component, suckering and spread of aspen clones is expected. Conifers are also likely to regenerate. Lodgepole pine regeneration is not preferred, so treatments in lodgepole pine would be designed to minimize regeneration of this species by using less broadcast burning than in other stand types. Piling and burning would still be used in lodgepole pine stands because this method can be used effectively to minimize lodgepole pine regeneration. Maintenance treatments, which are beyond the scope of this project, may be used in the future to keep regeneration of conifers to an acceptable level and maintain more open canopy and understory conditions than are currently present.*

64. Comment: The EA failed to demonstrate the need of fuels treatments in forest types other than ponderosa pine (91-2g, 93-2g).

Response: *See the response to Comment 2.*

Fire and Fuels

65. Comment: In order for the public to develop informed opinions on fire management actions for public lands, a discussion of the analysis and findings of the relevant Fire Management Plan (for the Pike-San Isabel National Forest) is needed in the EA (58-4).

Response: *The Fire Management Plan for the PSICC (USFS 2005c) outlines the general scheme used for fire management on the PSICC. It describes current Forest Plan (USFS 1984a) and other relevant direction, the scope of the fire management program, fire management activities (such as prevention, detection, and suppression), and the fire organization used to implement the plan. The proposed project falls within the scope of the PSICC Fire Management Plan because mechanical and prescribed fire treatments are both discussed as potential tools to be used in meeting management objectives.*

66. Comment: The combination of factors that contributed to the intensity and size of the Hi-Meadow and Hayman fires, such as drought conditions, low humidity, high temperatures, and wind, would not be solved by this project (39-4, 62-4, 72-4).

Response: Wildland fire behavior is a function of three factors: fuels, weather, and topography. Fuels, weather, and topography each played a substantial role in the spread of the Hi-Meadow, Hayman, and other recent large fires (such as the Snaking and Black Mountain fires, both of which occurred in the project area). Two of these factors (weather and topography) are beyond human control; therefore, fuels are the focus of efforts to alter potential fire behavior. The proposed project would directly alter fuels, reducing their contribution to adverse fire behavior in the event of future wildland fires.

67. Comment: Most of the homes that could be threatened are downhill from treatment areas on National Forest land. Fires burn slower downhill, another point that favors focusing treatments near homes (64-2e, 65-2e, 75-2e).

Response: While it is true that most homes in the Harris Park project area are downhill of proposed treatment units, and that fires tend to burn slower downhill, other factors such as weather can influence fire behavior and override the influence of topography. For example, the extreme weather conditions (high temperatures, low humidity, and strong winds) that occurred on June 9, 2002 pushed the Hayman Fire 16 to 19 miles down the South Platte drainage (Finney et al. 2003). The similarly wind-driven Buffalo Creek Fire (1996) was pushed across and down slopes as well. Prevailing winds in the project area are generally from the south and southwest (based on data from the Bailey weather station near the top of Crow Hill), which could push a fire from the southern part of the project area down into Harris Park. The topography of Deer Creek and Elk Creek canyons and the location of Mount Evans to the west suggest the potential for strong downslope winds from the west as well, which could also push a fire off USFS lands down into Harris Park.

68. Comment: The EA fails to disclose the effects of severe fire weather compared with normal conditions and the effects on crown fire potential as well as the role of topography in fire risk and hazard (91-2a, 93-2a).

Response: Potential fire intensity was estimated using 90th percentile (severe) weather conditions (page 3-19 in the EA) because major wildland fires along Colorado's Front Range tend to occur at 90th percentile or higher weather conditions. Under normal conditions, fires remain small and are easily controlled with minimal risk to firefighters and the public. The proposed project is specifically designed to reduce the potential for dangerous fire behavior under severe conditions. The effects of the proposed project on crown fire potential and other components of fire behavior are discussed on page 3-20 in the EA. The role of topography in fire risk and hazard was not discussed because it would not be affected by the proposed project. In addition, topography is not always the most important factor in fire behavior, as discussed in the response to Comment 67.

69. Comment: There is a lack of evidence supporting the proposal that mechanical fuels reduction, either thinning or a combination of thinning and fire, would reduce the severity of wildfires. The same canopy fire risk reduction can be met with a 16-inch dbh cap (on treated trees) compared to no cap (91-2c, 93-2c).

Response: The potential for the proposed project to reduce the severity of wildland fires is discussed on pages 3-19 through 3-22 in the EA. The types of treatments proposed for this project are supported by several recent studies (for example, Graham et al. 2004, Martinson et al. 2003). These

studies have shown that similar treatments can substantially reduce flame length, rate of spread, crown fire activity, and other aspects of fire behavior.

70. Comment: The EA failed to demonstrate the reliability of the models used and failed to identify which if any data from the planning area were used in the models (91-2h, 93-2h).

Response: Fire and fuels data used in the analysis of effects were from Anchor Point (2003). Anchor Point's wildfire hazard risk assessment used the fuel models of Anderson (1982) combined with BEHAVE to estimate potential fire behavior in individual fuel types. BEHAVE is a nationally recognized fire behavior model used to estimate a fire's intensity and rate of spread given certain conditions of topography, fuels, and weather. FLAMMAP was used to estimate potential fire behavior across the landscape. FLAMMAP applies the calculations from BEHAVE, which are made for individual point locations, across a landscape.

Air Quality

71. Comment: Burning would cause unacceptable smoke pollution and should be addressed. It is doubtful that the consultants studying this plan have taken into account the air quality damage done by this unnatural burning (39-10, 59-2, 61-1, 62-10, 72-10, 73-5).

Response: The potential effects of air quality from prescribed burning are discussed on page 3-25 in the EA. The burn plan that would be prepared and approved before any burning is conducted would also consider the potential effects to air quality. As stated on page 2-21 in the EA, all burning would comply with State of Colorado air quality guidelines.

Watersheds

72. Comment: Erosion in riparian areas should be monitored closely for a reasonable period after treatment is completed and proper steps taken if necessary to repair any problems (33-1).

Response: The analysis of effects to soil and water resources (pages 3-35 to 3-39 in the EA) concluded that the potential for soil erosion and sediment production associated with the proposed action would be only slightly higher than for the no action alternative. Unpaved roads are typically the largest source of sediment in forested areas (Libohova 2004). In addition, "All treatments near riparian areas would follow FSH 2509.25, Watershed Conservation Practices Handbook – R2 Amendment 2509.25-2001-1 (WCPH) (USFS 2001b) to minimize effects to riparian habitats" (page 2-19 in the EA). Therefore, monitoring of roads for soil erosion and other adverse watershed effects would capture the primary potential effects to riparian areas. As stated on page 2-23 of the EA, "All roads used for project activities, including existing system roads and temporary roads, would be monitored to ensure that no adverse soil erosion or other watershed effects are occurring." If adverse soil erosion or other watershed effects are noted during monitoring, measures would be developed and implemented to minimize these effects.

73. Comment: The EA fails to explain how the project would comply with regional standards, specifically the WCPH and its project design standards. T-Walk or an equally rigorous monitoring protocol should be used to assess stream health. Special aquatic sites should be identified and protected. Baseline sediment loads should be quantified. Post-project monitoring should include T-Walk or equivalent monitoring (91-5, 93-5).

Response: The project design standards from the WCPH (USFS 2001b) are incorporated by reference into the project design standards for the proposed project (page 2-19 in the EA). The

current WCPH is being revised and the new handbook would be used after it is approved. The USFS would apply design standards from the WCPH; additional BMPs such as use of water bars and revegetation of disturbed areas; the Regional soil protection standards that restrict soil damage to less than 15 percent of an activity area; stream and riparian buffers with a minimum width of 100 feet; and adaptive management to reduce the potential for sediment yield and adverse effects in streams to a minimal level. In addition, no ground-disturbing treatments would occur in or near wetlands that have been mapped. These wetlands occur mostly in riparian zones along stream channels that would be protected with a buffer where ground-disturbing activities would be minimized. Any wetlands outside of riparian areas and stream channels that may not have been mapped because of their small size would receive the same protection. Also, as discussed in the response to Comment 72, “All roads used for project activities, including existing system roads and temporary roads, would be monitored to ensure that no adverse soil erosion or other watershed effects are occurring” (page 2-23 in the EA). If adverse soil erosion or other watershed effects are noted during monitoring, measures would be developed and implemented to minimize these effects.

No “special aquatic sites” are known to exist in the project area. However, streams and riparian habitat, including wetlands, have been identified and mapped in the project area. Several streams in the project area are being monitored for watershed conditions and fish habitat. This monitoring includes assessing stream channel stability using an established method (Rosgen 2001) that is more rigorous than T-Walk. This method would also be used to quantify sediment supply. The USFS would continue to monitor these streams for the duration of the project.

74. Comment: The USFS has failed to ensure that soil and watershed conditions in the project area would not be permanently impaired. The effects of the project on soil and watershed conditions should be analyzed, mitigation should be incorporated into the project design, and the effectiveness of mitigation should be monitored. The EA does not reference quantitative measures and fails to qualitatively discuss factors from the FSH and Forest Service Manual (FSM) (91-6, 93-6).

Response: *The potential effects of the proposed project on soils and watershed conditions were analyzed on pages 3-35 through 3-39 in the EA. Project design standards, mitigation, and monitoring for soils and watersheds are discussed on pages 2-19 through 2-23 of the EA. The analysis of effects is based on published scientific literature (for example, Gary 1975, MacDonald and Stednick 2004) and monitoring of similar projects in the Upper South Platte watershed (for example, Benavides-Solorio 2003, Libohova 2004), which showed that projects of this type do not permanently impair soil and watershed conditions. Water Erosion Prediction Project modeling (pages 3-37 and 3-39 in the EA) was used to quantify potential effects to soils and watersheds.*

Management Indicator Species and Special-Status Species

Vegetation

75. Comment: Surveys for rare plants are needed and should be conducted for each proposed road route and each proposed treatment unit shortly before work begins (64-11c, 65-11c, 75-11c).

Response: *The USFS is committed to minimizing the effects of the proposed project on sensitive plants. As discussed on pages 3-74 to 3-80 in the EA, no sensitive plants are known to occur in the project area. Therefore, specific surveys for sensitive plants would not be conducted. However, pre-treatment surveys would be conducted in each specific treatment unit before treatments begin in the unit. Survey crews would alter the treatments to avoid effects to any sensitive plants that are observed. A new mitigation measure has been developed in response to this and other comments. See the new mitigation measure listed in the response to Comment 53.*

Wildlife

76. Comment: The Forest should have at least three years of data concerning the use of the areas proposed for treatment by all MIS, endangered, threatened, candidate, or species of concern. The USFS should gather population data at least for all MIS. From the discussion in the EA, it appears there is little to no current data available now (40-7, 64-5a, 65-5a, 75-5a).

Response: The EA and supporting documents (USFS 2003, USFS 2004) in the project record provide available quantitative data at the Forest-wide scale, based on monitoring efforts consistent with the Forest Plan. The EA, Biological Assessment (BA), Biological Evaluation (BE), and MIS reports for this project present quantitative data and evaluations of project effects for all species that may occur in the project area. The MIS report addressed all four MIS from the recently approved Forest Plan amendment that updated the MIS list, plus 16 other species that are no longer on the MIS list.

The 2005 Planning Rule (2005d) for implementing National Forest Management Act of 1976 modified the MIS concept for forests transitioning from the 1982 Rule. During the period of transition:

“Management indicator species. For units with plans developed, amended, or revised using the provisions of the planning rule in effect prior to November 9, 2000, [the 1982 Rule] the Responsible Official may comply with any obligations relating to management indicator species by considering data and analysis relating to habitat unless the plan specifically requires population monitoring or population surveys for the species. Site-specific monitoring or surveying of a proposed project or activity area is not required, but may be conducted at the discretion of the Responsible official.” (36 CFR 219.14(f))

Since the Forest Plan, including the MIS amendment, does not require MIS population monitoring or population surveying, this language explicitly relieves the Forest Service of obligations regarding the monitoring and surveying of MIS wildlife populations.

The USFS completed a BA and BE for all federally-listed and sensitive species that may occur in the project area. The USFWS concurred with the “may affect, but is not likely to adversely affect” determinations contained in the BA (Letter, March 2, 2006, from Susan C. Linner, Colorado Field Supervisor, Fish and Wildlife Service to J.R. Hickenbottom, District Ranger, Forest Service, South Platte Ranger District). The USFWS did not require the USFS to collect project area population data for federally-listed species. Also, there are no USFS requirements for sensitive species population monitoring.

77. Comment: Under the Forest Plan, various levels of habitat capability should be maintained for MIS, depending on MA and season (64-5b, 65-5b, 75-5b).

Response: The MIS Report contains a complete discussion of habitat capability for MIS, including an assessment of compliance with Forest Plan standards (USFS 1984a) for each MA and season. The EA summarized the effects of the proposed project on habitat capability for selected MIS and compared the results with Forest Plan standards (pages 3-41 through 3-53). In most cases, future conditions would meet or exceed the Forest Plan standards. Where standards would not be met, it is often the case that the proposed alternative would increase habitat capability from the current level. In other cases, there are deficiencies in the model that likely underestimate habitat capabilities, especially in the long-term.

78. Comment: The Forest should include information on species that use smaller diameter class trees (VSS 3 and 4), such as the tassel-eared squirrel (91-4b, 93-4b).

Response: *Information on the tassel-eared squirrel (Abert's squirrel) is discussed on pages 3-44 through 3-46 in the EA, although this species is more typical of mature ponderosa pine forests, rather than smaller diameter class trees.*

79. Comment: The Forest Plan's requirement for one 0.1-acre nest tree clump per six acres is insufficient. Ponderosa pine in the project area is not as clumpy as expected. Removal of ponderosa pine may have to be minimal or cancelled to ensure sufficient habitat for Abert's squirrel. It is hard to believe that habitat capability standards would be met for Abert's under Alternative 1, as stated at EA on page 3-45. The Forest Service should clarify the basis for this conclusion (64-5d1, 65-5d1, 75-5d1).

Response: *It is not within the scope of this project to reevaluate the adequacy of Forest Plan standards (USFS 1984a). As stated on page 2-16 of the EA, ponderosa pine would be favored for retention, while Douglas-fir, Engelmann spruce, lodgepole pine, and subalpine fir would be targeted for removal. Under this treatment type, ponderosa pine would only be removed if needed to accomplish the goals of the treatment. Furthermore, treatments would be designed with small clumps of trees intermingled with openings or areas of lower tree density, in part to provide habitat for Abert's squirrel and potentially in excess of Forest Plan requirements.*

The MIS Report contains a complete discussion of habitat capability for MIS, including an assessment of compliance with Forest Plan standards for each MA and season for Abert's squirrel. In summary, Abert's squirrel habitat capability in the project area is currently above Forest Plan (USFS 1984a) standards for all evaluated MAs. HABCAP modeling results indicate that Forest Plan standards would continue to be met for MAs 2B, 5B, 7D, and 9A, and would almost be met for MA 2A. To prevent adverse effects to any Abert's squirrels in MA 2A and meet Forest Plan standards, the proposed action was modified to exclude all treatments from mature ponderosa pine stands (preferred Abert's squirrel habitats) in MA 2A (see response to Comment 52).

The proposed treatments would convert stands of ponderosa pine HSS 4B to 4A. The HABCAP model ranks the forage and cover values for ponderosa pine HSS 4B higher than HSS 4A. However, this model only accounts for the overall shift in HSSs and does not account for variability within each treatment unit. Trees would be thinned in a manner that creates clumps of trees intermingled with small, irregular openings or areas of lower tree density, creating a mosaic of different stand characteristics across the landscape. For example, where Abert's squirrel sign (feed trees or nests) is present, a clump of three to ten trees that is three to twenty feet from the nearest neighboring tree could be left adjacent to an opening or area of low tree density, containing zero to three trees. The extent of these clumps is not known because it would be based partly on existing forest conditions and partly on observed use of existing clumps by Abert's squirrel. By retaining tree clumps for Abert's squirrel where they exist on the landscape and where they are currently being used by Abert's squirrels, sufficient habitat would be retained to provide for viable populations of this species. This treatment would provide appropriate Abert's squirrel habitat that may not be fully accounted for in the model. Therefore, the habitat capability under the proposed action may actually be higher than is predicted by the HABCAP model. Research in northern Arizona suggested that this approach may reduce the effects of forest treatments on Abert's squirrels (Elson 1999), and a recent USFS species assessment (Keith 2003) makes similar recommendations.

80. Comment: The EA states that Alternative 1 would improve deer habitat by increasing foraging opportunities and cover availability. Similar language occurs concerning elk. However, thinning of conifers would reduce cover because such activity would maintain a low density of conifer and shrub

density in some areas. These statements seem inconsistent. Change in forage after project implementation is uncertain (64-5e1, 65-5e1, 75-5e1).

Response: The various combinations of habitat type and treatment type would create diverse, small-scale effects; however, the HABCAP modeling results discussed in the MIS report in the project file indicate that overall, both forage and cover availability would increase for mule deer and elk across the project area. Thinning and prescribed burning would initially reduce stand density, and cover by grasses, forbs, and shrubs would likely increase, but over time the availability and condition of cover would increase because of increased aspen regeneration and shrub density in treated stands.

81. Comment: The Forest Plan habitat capability standard for the American three-toed woodpecker is not now being met in MAs 2A, 2B, and 5B. Alternative 1 would put these MAs further out of compliance. Thus, implementing Alternative would violate the Forest Plan (64-5f, 65-5f, 75-5f).

Response: The USFS recently amended the Forest Plan to update the MIS list (USFS 2005e). The American three-toed woodpecker was not included in the new MIS list. Alternative 1 does not violate the Forest Plan because there are no MIS standards specific to this species in the amended Plan, This species would continue to be protected by the general viability requirements of NFMA and Forest Plan standards and guidelines.

Effects to the American three-toed woodpecker would not increase under the proposed action. Implementation of the proposed action would not affect mature stands of spruce/fir, but it would reduce the amount of mature lodgepole pine and Douglas-fir in the project area, which provide secondary habitats. Although Alternative 1 would not benefit this species in the short-term, it is expected to provide more sustainable woodpecker habitats in the long-term by promoting retention of larger trees that represent future snags that can be used for nesting and feeding by this species.

82. Comment: Even if habitat capability is maintained, project activities and the likely increased OHV use would considerably reduce the effectiveness of habitat for many species in the project area. In analyzing the effectiveness of habitat, the USFS should assume that some of the 30 miles of road would not be closed successfully (64-5c, 65-5c, 75-5c).

Response: The Forest Service is committed to closing all 30 miles of temporary roads used for the proposed project and ensuring that these roads are not used by OHVs or other motorized traffic. Therefore, these roads were not included in calculations of habitat effectiveness.

83. Comment: The prolonged activity in the proposed area would most likely disrupt the tranquility of the local elk herd and cause the local elk herd to relocate into the Evergreen area. This may cause overcrowding problems in the elk population and overgrazing in the Evergreen area (64-5e5, 75-5e5).

Response: As noted in the response to Comment 86, the local elk population is over objective. The EA acknowledges that project activities would temporarily disturb or displace elk (page 3-43). Activities in each treatment unit would occur over a shorter time (one to two years) compared with the entire length of the project (five to seven years). Therefore, while the elk herd may be displaced from individual treatment units, it is unlikely to leave the project area or cause overcrowding or overgrazing outside the project area.

84. Comment: From pages 3-41 to 3-44, there are several references to deer and elk populations, attributed to a conversation with a D. Myers (2004) with the Colorado Division of Wildlife. We do not have any field personnel in the area with the last name of Myers. Please confer with our field staff

in Area 1 and the Terrestrial Section for information concerning local wildlife populations (51-1, 92-1).

Response: D. Myers is the Wildlife Manager for the Colorado Division of Wildlife and is located in the Denver, Colorado office. On past projects, local CDOW staff has referred the project team to D. Myers for deer and elk population data; therefore, he was consulted for this project as well. In the future, we would also contact the local CDOW staff, as requested.

85. Comment: The EA states that the local deer population in GMU 46 is at objective. That is incorrect, as the deer population is currently under objective (51-2, 92-2).

Response: Incorrect information was used in discussing the status of the local deer population. The general conclusions of the analysis are, however, still correct. The proposed project is expected to improve habitat conditions for deer and may contribute to an increasing deer population.

86. Comment: The elk population in the area is over objective, as opposed to the statement that population size is at the objective level in the EA (51-3, 92-3).

Response: Incorrect information was used in discussing the status of the local elk population. The general conclusions of the analysis are, however, still correct. The proposed project is expected to improve habitat conditions for elk and may contribute to an increasing elk population.

87. Comment: Altitude limits for sensitive species and the Mexican spotted owl should be adjusted to account for climate change. Climate change will affect temperatures and moisture regimes, which should be considered in the altitude limits as well (90-4).

Response: The potential effects of climate change are difficult to predict and depend on many factors outside of the scope of this project. Over the life of the project, any effects of climate change would be difficult to separate from more local weather phenomena, such as the ongoing drought. Only long-term population and habitat monitoring, which are outside the scope of the project, would be able to determine shifts in the altitude limits for sensitive species and the Mexican spotted owl.

88. Comment: The USFS is required to analyze the effects of this project (including cumulative effects) on various terrestrial, aquatic, and plant species, including MIS (91-4a, 93-4a).

Response: The potential direct, indirect, and cumulative effects of the proposed project on various terrestrial, aquatic, and plant species, including MIS, are discussed on pages 3-40 through 3-80 of the EA.

Other Wildlife

89. Comment: There is a concern that animals may become so stressed during project activity that their ability to find food, survive a hard winter, care for their young, or reproduce is reduced. How would these issues be addressed? Logging and burning over such a large area for seven years would kill and cause relocation of wildlife (35-12, 39-12, 62-12, 72-12, 73-9).

Response: The EA acknowledges that project activities may disturb or displace individuals of several wildlife species from otherwise suitable habitats (pages 3-41 through 3-74). This may affect the ability of individual animals to find food, survive a hard winter, care for their young, or reproduce. However, project activities in each treatment unit would occur over a shorter time (one to two years) compared with the entire length of the project (five to seven years). In addition, 64 percent of the

project area would receive no treatment. Individual animals would, for the most part, be able to use habitats in the project area that are not being actively treated. The short-term risk to individual animals would be offset by the long-term improvement in habitat conditions and the reduced risk of large-scale habitat loss from wildland fire.

Transportation

90. Comment: How would Harris Park roads be kept in good condition? Would the USFS be able to guarantee that Park County would maintain and keep these roads in good condition? The USFS and Park County Road and Bridge should work cooperatively to ensure proper road maintenance during and immediately after the project. Would maintenance funds be available for repairs? How would the project affect the condition of local roads, including Highway 285 and other roads all the way to the final destination of forest products? (2-1, 4-1, 10-1, 12-1, 33-2, 35-7, 50-1, 61-3, 63-1, 77-1, 79-1, 80-1, 81-1, 82-1, 83-1, 84-1, 85-1).

Response: The EA estimated that anticipated project traffic would average seven to eight round trips per day by truck traffic and 15 round trips per day by passenger vehicles or pickups (page 3-82), which is likely only a small fraction of the total amount of traffic on project area roads, especially Highway 285. About half of this traffic would use Park County Road 43 because about half of the treatment units would be accessed from this road. The potential effects to project area roads from this traffic are discussed on page 3-82 in the EA. The efforts of Park County to maintain roads in the project area, and the funds needed for maintenance work, are outside of the scope of this project.

91. Comment: How would public safety be affected by the increased traffic on local roads? Would the USFS open up another entrance for trucks and equipment to use? Would the USFS guarantee that its employees and contractors obey speed limits on the local roads (77-2, 77-3)?

Response: Existing USFS and county road would provide primary access to treatment areas (page 2-18 in the EA). Temporary roads would only be used to connect existing USFS roads with treatment units, not to provide entirely new access routes into the project area. As noted above, the EA estimated that anticipated project traffic would average seven to eight round trips per day by truck traffic and 15 round trips per day by passenger vehicles or pickups (page 3-82). Any effects to public safety from this traffic are expected to be minimal because of this low traffic volume. Forest Service employees and contractors are required to obey speed limits and other traffic laws, which are enforced by local and state law enforcement agencies.

92. Comment: In MA 9A, roads should not parallel streams when the road location must occur in riparian areas except where absolutely necessary. If the road density in MA 9A is 4.1 miles per square mile as stated in the EA, some of these roads must parallel streams. Failure to address this issue would violate the Forest Plan (64-4e, 65-4e, 75-4e).

Response: MA 9A consists of a 100-foot buffer around perennial streams, lakes, and other water bodies. In the project area, 626 acres are assigned to MA 9A (page 2-2 in the EA). There are 3.96 miles of existing roads in MA 9A, many of which run parallel to streams. These roads include U. S. Highway 285 along the North Fork of the South Platte River, the Deer Creek road (National Forest System Road [NFSR] 100), the Harris Park road (NSFR 108), and primitive roads near streams in Slaughterhouse Gulch, Crow Gulch, along the North Fork of North Elk Creek, and other locations. The referenced Forest Plan standard (USFS 1984a) applies to new road locations, not existing roads. All temporary roads proposed for this project would meet this standard.

93. Comment: What would be the effects of noise from logging trucks going up and down local roads for years (59-3)?

Response: *The EA estimated that anticipated project traffic would average seven to eight round trips per day by truck traffic and 15 round trips per day by passenger vehicles or pickups (page 3-82). Any effects to noise would be transient at any particular location because continuous truck traffic would not occur.*

Inventoried Roadless Areas

94. Comment: The Forest must consider effects to roadless areas (40-4).

Response: *The potential effects of the proposed project on roadless areas (IRAs) are discussed on pages 3-83 and 3-84 in the EA.*

Recreation

95. Comment: Figure 3-6, showing the recreational opportunity spectrum (ROS) in the project area appears to be incorrect. The ROS classes do not appear to agree with MA prescriptions (64-13b, 65-13b, 75-13b).

Response: *Figure 3-6 is correct. ROS classes are based on natural resource settings, activities that occur within each class, and the experience opportunities available (USFS 1984b). ROS classes are not directly comparable to MA prescriptions, nor are they specifically set in the Forest Plan (USFS 1984a).*

96. Comment: The Meridian and Deer Creek trails should not be closed during the project. Road closures should not limit recreational access through Harris Park for more than two to three days at a time. The project would disrupt recreational opportunities, because of its size, length (time), and smoke (4-3, 5-2, 10-2, 39-3, 62-3, 72-3, 73-8).

Response: *The effects of the proposed project on recreation are discussed on pages 3-85 through 3-89 in the EA. No activities are proposed along the Meridian or Deer Creek trails (page 3-86 in the EA). The trailheads for the Meridian and Deer Creek trails are located in treatment units because they are close to private lands. The proposed project may also improve recreational opportunities. For example, the poor quality road to the Meridian trailhead, which is not currently passable to low-clearance vehicles, may be improved using stewardship contracting.*

Several project design standards and mitigation measures would be used to minimize effects to recreational opportunities (pages 2-20 through 2-22 in the EA). These would typically prohibit cutting, chipping, and hauling on weekends and holidays and prohibit all treatments near developed recreational facilities (campgrounds, summer camps, trails, and trailheads) between Memorial Day and Labor Day and when the public is present. Timing of activities around campgrounds, trails, and trailheads would be closely coordinated with the Recreation Specialist to minimize effects to recreational opportunities. Road closures may occasionally be needed on USFS roads (not county roads) to protect public safety. New mitigation measures have been developed in response to this comment:

- *The Meridian and Deer Creek trailheads would not be closed at the same time during project activities.*

- Closures of existing NFSRs would be planned to avoid weekends or holidays, except as necessary to protect public safety.

Visual Resources

97. Comment: For Alternative 2, the EA states that visual quality objectives (VQOs) would continue to be met. However, there is no such statement for Alternative 1. The proposed activities under Alternative 1 may not meet the VQOs in the project area (64-12, 65-12, 75-12).

Response: *The effects of the proposed project on visual resources are discussed on page 3-90 in the EA. Alternative 1 would meet the VQOs in the project area (page 2-28 in the EA).*

98. Comment: The presence of slash, new roads, skid trails, stumps, and other artifacts of logging would considerably degrade the recreational and aesthetic experience of visitors (64-2f, 65-2f, 75-2f).

Response: *The short-term and long-term effects of the proposed project on visual resources, including the effects of the proposed mechanical treatments, are discussed on page 3-90 in the EA. The effects of the proposed project on recreational opportunities are discussed on pages 3-85 through 3-89 in the EA.*

Economics

99. Comment: Proceeds from the sale of forest products (specifically lumber) should be designated for community improvement projects in the Bailey/Pine area (4-2).

Response: *Commercial removal of material would only be done to reduce treatment costs where, or if, feasible (page 2-11 in the EA). Minimal merchantable timber would be produced under Alternative 1. The primary goal for treatment is fuel management, which targets trees that are typically smaller than commercial size (page 3-95 in the EA). The Economic Analysis for the proposed project estimated that the project would cost the USFS slightly more than \$4 million to complete. Considering the low value of most of the wood products to be removed, it is unlikely that any proceeds would be available for local communities. The benefit of this project to local communities is based on reducing the potential for damage or loss of private property. This benefit has been estimated to be slightly less than \$0.7 million for local governments and more than \$34 million for private property owners.*

100. Comment: Local people should be able to contract work in the project area. Would local businesses receive preference over non-local commercial logging companies? (33-5, 35-6, 87-2).

Response: *Mechanical fuel treatment and other service contracting opportunities would be available to local companies (page 3-95 in the EA). However, no preference would be given to local companies because the USFS needs to provide the best value possible to the taxpayers who are ultimately funding this project. If contractors from outside the community are selected for the project, a minor economic benefit may be realized by local stores, restaurants, and other businesses (page 3-95 in the EA).*

101. Comment: Would residents affected by the project be able to gather firewood from the project area? Would there be an opportunity for residents or local businesses to harvest landscaping plants and building materials before or after areas are treated by other means (35-5, 59-5, 77-4)?

Response: *Personal-use fuelwood sales would be used to accomplish fuel reduction and to remove material (page 2-11 in the EA). Where possible, small trees that are of Christmas tree size and character, as well as seedlings and saplings that may grow into Christmas trees, would be left in some treatment units. Future Christmas tree removal could be promoted. During implementation of the project, any opportunities that arise for product removal would be examined for their potential to reduce fuels. These may include, but are not limited to, commercial and personal-use Christmas tree sales, sale of mulch, and free use permits (page 2-12 in the EA).*

102. Comment: The pros and cons of property value fluctuation because of this project should be addressed (59-4).

Response: *The effects of the proposed project on property values are discussed on page 3-95 in the EA. The effects on property values of not conducting the proposed project are discussed on page 3-97 of the EA.*

103. Comment: A cost analysis should be prepared that considers the use of a local work force (35-8).

Response: *The Economic Analysis for the proposed project based the costs of conducting the treatments on the costs for similar, nearby treatments (such as the Upper South Platte Watershed Protection and Restoration Project). This analysis did not distinguish between the use of local or non-local labor. The type of labor used for this project would depend on the value provided to the USFS by the contractor(s) used for the project. The USFS is required to comply with Federal Acquisition Regulations, Agricultural Acquisition Regulations, and applicable agency supplements for acquiring products and services. These regulations provide opportunities to use local labor for this project.*

104. Comment: Taxes should not be used to log and clear around somebody's home (57-2).

Response: *The proposed project would not create defensible space around individual homes. This would continue to be the responsibility of individual property owners. Tax dollars from federal taxpayers would be the ultimate source of funds used to conduct the proposed project. While there would be an immediate net cost to the USFS (and taxpayers) from implementing this project, the estimated long-term benefits in terms of reduced fire risk, losses to private property, and firefighting efforts outweigh the direct costs. The Economic Analysis for the proposed project estimated the net savings for this project at \$31 million, primarily as benefits to private property owners.*

105. Comment: Who would profit from logging and forest resources taken from federal and state lands for this project (59-6)?

Response: *The Economic Analysis for the proposed project estimated that the project would cost the USFS slightly more than \$4 million to complete. As stated on page 3-98 of the EA, the USFS would have a net cost of slightly more than \$3.7 million, once projected benefits are included in the analysis. Any potential profit derived from the fuels treatments on federal lands that are part of this project would accrue to the contractor(s) hired by the USFS to implement the project. Little profit is expected from the proposed project because of the low value of the products to be removed. Profits from any high value forest products that are removed would be used to offset the costs of removing low value products. Activities on state lands are outside the scope of the proposed project.*

106. Comment: The cost-effectiveness of the treatments should be considered. In particular, mechanical treatments are more expensive than prescribed fire and may not be needed on every acre (91-2d, 93-2d).

Response: *Specific treatments would be applied to stands depending on the goals to be achieved in the stand. Each specific treatment would use a combination of the mechanical, hand, and prescribed fire methods as appropriate. Natural variation exists in each stand; therefore, the exact prescription for each stand would be developed during project implementation based primarily on the purpose of and need for the proposed project and not on the costs to implement the treatments. The stand prescriptions would create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreational opportunities, and sustainable watershed conditions. This would be accomplished by reducing forest canopy density and ground and ladder fuels. The cost-effectiveness of prescribed fire over mechanical treatments in achieving the purpose and need is not as clear as suggested. In areas with heavy ground and ladder fuel loads and dense canopy, prescribed fire may be prohibitively expensive (and dangerous) without prior mechanical treatments. In other areas of low fuel loads, prescribed fire alone may be sufficient to achieve the purpose and need.*

107. Comment: The EA failed to consider the costs and benefits of temporary road construction. The EA should demonstrate that any effects from temporary road construction would be offset by gains in fuel reduction (91-2e, 93-2e).

Response: *The Economic Analysis for the proposed project included the costs and benefits of temporary road construction, as did the discussion of financial efficiency on pages 3-97 through 3-99 in the EA. Without temporary road construction, many of the treatment areas could not be accessed and the effectiveness of the project would be reduced. Such an alternative would fail to meet the purpose of and need for the project because it would prevent the creation of treatment continuity across the landscape. The risk to private property would not be substantially reduced from the current condition.*

Other Resources

108. Comment: The EA failed to consider in detail grazing activities and effects on National Forest lands (91-2i, 93-2i).

Response: *Livestock grazing is considered a past, present, and reasonably foreseeable future activity in the project area and was discussed on page 3-2 in the EA. Livestock effects in the project area were addressed in the EA for the grazing management plan (USFS 2005a) that was recently approved (USFS 2005b).*

Cumulative Effects

109. Comment: The EA failed to provide an adequate cumulative effects analysis, particularly for livestock grazing, timber harvest, fuel break construction, thinning, prescribed fire, and road developments on water quality, forest health, wildlife habitat, noxious weeds, cultural resources, and other resources (91-3, 93-3).

Response: *Livestock grazing, timber harvest, fuel break construction, thinning, prescribed fire, and road developments were all discussed as past, present, and reasonably foreseeable future activities on pages 3-1 through 3-6 in the EA. The potential cumulative effects of each of these activities on individual resources are discussed in the cumulative effects sections for each resource in Chapter 3 in the EA.*

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