

Decision Memo

Evergreen Fuels Reduction Project Area

USDA Forest Service
Clear Creek Ranger District, Arapaho-Roosevelt National Forests
and the Pawnee National Grassland
Jefferson, Clear Creek, and Park Counties, Colorado

Project Location

The project boundary is on the Arapaho-Roosevelt National Forests and Pawnee National Grassland, Clear Creek District and includes the interface between private property and National Forest System lands southwest of Evergreen, CO. The legal location is T5S R71W Sections 31 and 32, T5S R72W Sections 23, 26, 27, 34, and 35, T6S R71W Sections 5, 6, and 7, and T6S R72W Sections 1 and 2.

Purpose and Need for the Proposed Action

The purpose of this project is to begin a series of fuel reduction treatments on publicly managed lands that are intermingled with private lands in the wildland urban interface (WUI). The hazardous fuels that will be treated include dense mixed conifer stands of lodgepole pine, Douglas fir, and Engelmann spruce and existing dead and down slash (woody vegetation). Hazardous fuels mitigation on National Forest System (NFS) lands in the wildland urban interface (WUI) around the Brook Forest and Yankee Creek areas will be the focus of this project.

The Evergreen Fuel Reduction Project will also tie past treatments on NFS lands with proposed and current treatments on adjacent lands. This project will be done in conjunction with projects on the neighboring Pike National Forest, and with the surrounding private, state, and county landowners in the area. The Forest Service will create openings through clear cutting, thin the forest to enhance fire suppression efforts and enhance existing fuelbreaks, such as rock outcrops, aspen stands, and meadows in the WUI. This is the first entry in some of the units and the second entry in other units. The type of treatment and the amount of cutting proposed for each unit is dependent on the current stand conditions in relation to the windfirmness of the trees. Consideration of the potential for windthrow to occur in different units was incorporated to develop the actual treatments. Additional entries will need to occur to increase the effectiveness of the treatments in the long term in relation to the hazardous fuels mitigation.

Reducing hazardous fuels on public lands has occurred to varying degrees across the nation since the fires of 2000, including the Arapaho-Roosevelt National Forests. The wildfires of 2000 raised public awareness and resulted in more funding to implement fuels reduction projects through the National Fire Plan. Congress required a list of communities within the vicinity of federal lands that are at risk from wildfire. The communities of Evergreen, Conifer, Aspen Park, and Brook Forest were placed on this list due to their proximity to NFS lands and the density of the surrounding forest.

Over the last two decades these areas have experienced rapid development. There are approximately 5,000 private landowners in a three-mile radius of the project and approximately 2,000 private landowners in a one-mile radius of the project. There is an increase in values at risk to wildfires as more and more people move into the area. In addition to the increase in population, the surrounding NFS lands have developed a heavy accumulation of fuels that threaten private lands, public lands, and watersheds.

Severe crown fires typically have created large expanses of even-aged, pure or mixed conifer stands of lodgepole pine, Douglas fir, and Engelmann spruce across Colorado. The Evergreen Geographic Area is comprised of high elevation conifer species that generally retain enough moisture that the forest fuels do not burn very often, but continue to increase over time. When dead and live woody fuel is dry enough to burn however, stand replacing crown fires historically occur in these conifer types 83% of the time (Hann et al., 2003). The lower subalpine stands of mixed conifer in the Evergreen Geographic Area currently exhibit forest fuel quantities and characteristics that support active and passive crown fire under weather conditions similar to those experienced during the 2000 and 2002 fire seasons in Colorado.

Large scale treatments that combine clearcuts with thinning are the most effective method of altering forest fuel structures and fire behavior in stand replacement fire regimes, but lodgepole pine is very susceptible to windthrow when stands are thinned too heavily. The type of treatment and the amount of thinning proposed for each unit is dependent upon the potential for windthrow of lodgepole pine. Additional future entries will be required to increase the long-term effectiveness of the treatments against crown fire.

Decision to be Implemented / Proposed Action

I have decided to treat approximately 972 acres of hazardous fuels using mechanical and manual treatments (ground-based equipment and hand crews) within the Evergreen Project Area on the Clear Creek Ranger District on the Arapaho-Roosevelt National Forests. My decision includes approximately 2.26 miles of temporary road construction, 0.60 miles of road realignment, and closing and decommissioning of 1.95 miles of system and non-system roads in the project area. My decision also includes the mitigation measures and design criteria described in Appendix A of this document.

Mechanical Treatments include (see the attached map and treatment table for the unit details):

- Group openings on 20 to 30% of an area in a thinning unit in groups of 1/20th to 1/5th acre in size.
- Mechanical thinning with 20 to 30% basal area removal.
- Create openings (clear cuts / patch cuts) ranging from 1 to 10 acres (approximate locations on attached map).
- Grapple and hand piling of slash, dead and down woody vegetation into piles and burning the piles.

Manual Treatments include (see the attached map and treatment table for the unit details):

- Manual thinning with 20 to 30% basal area removal.
- Thinning small groups of trees to 10 to 15 foot crown spacing between clumps and individuals.
- Pruning conifers to reduce the potential for fire to reach tree crowns.
- Manually thin for approximately 300 feet along the forest boundary in Unit 28A.
- Aspen and meadow enhancement by removing or girdling conifers encroaching the aspen clones and meadows.
- Manual treatments may occur in mechanical treatment units where slopes are too steep, or on rocky ground that restricts equipment operation.

Heavy equipment or ground-based equipment, such as skidders, grapple pilers, as well as hand crews with ATV's and ATV arches may be utilized to implement these activities.

Access to Treatment Areas

Because many of the treatment units are adjacent to private lands, some right-of-way (ROW) acquisitions have been identified to obtain legal access to National Forest System (NFS) lands. In some cases, the most reasonable route to treatment units is on existing roads that go across private lands. Generally, there are fewer resource impacts when using existing roads. If it is not practical to move the road and a ROW cannot be obtained from the landowner, a potential outcome is that those units will not be treated and this reduces the effectiveness of the project. Long-term legal access is needed for the future treatment and use of the NFS lands. Therefore, permanent ROW across private land will be pursued prior to implementation of the project.

Refer to the Roads Analysis Report for specific details on the roads discussed below.

Table 1: Two new proposed permanent right-of-way acquisitions needed to access treatment unit 26A.

Road Name & Number	Legal Location	General Area	Road Improvement Needed	Forest Plan Management Area
Yankee Creek, ESR 244.1	T5S, R72W, Sec. 23 & 24	Buffalo Creek (2 landowners)	None needed	3.5 – Flora and Fauna

Current legal access into the southern portion of Unit 1A is along Cub Creek Trail Road (National Forest System Roads 197.1, 197.2A, 797.1A and 797.1). The Forest Service acquired reciprocal rights-of-way along the roads through private land in 2000. This access led to a very steep approach on 797.1 that is not useable for the project or future management of NFS lands in the area. We are working with the landowner to realign 797.1A across private land and through NFS lands on a better grade. The realignment will be approximately 0.6 mile in length, will be gated at both ends, closed to motorized travel, and maintained as a Level 1 (closed) road after the project is implemented. This is the current maintenance level of the road. The realignment of 797.1A will give the Forest Service legal access at the northern end of Unit 1A off Paiute Road in the County right-of-way and at the southern end of Unit 1A at Cub Creek Trail (road). A new

2. Flood plains, wetlands, or municipal watersheds.

Flood plains: Executive Order 11988 is to avoid adverse impacts associated with the occupancy and modification of flood plains. Flood plains are defined by this order as, "...the lowland and relatively flat areas adjoining inland and coastal waters including floodprone areas of offshore islands, including at a minimum, that area subject to a one percent (100-year recurrence) or greater chance of flooding in any one year."

- *Flood plains in the project areas will be avoided where possible and the hydrologist will designate any stream crossings to minimize any impacts to flood plains and streams, therefore there will not be adverse impacts.*

Wetlands: Executive Order 11990 is to avoid adverse impacts associated with the destruction or modification of wetlands. Wetlands are defined by this order as, "...areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or will support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

- *Surveys of the treatment units have been conducted. Wetland areas have been noted and as part of the design criteria will be avoided by treatment. The wetlands in the treatment units will be flagged for avoidance by the hydrologist or botanist prior to implementation, therefore there will not be adverse impacts.*

Municipal Watersheds: There are no municipal watersheds in this project area; therefore there will not be adverse impacts.

3. Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas.

The project is outside all wilderness, wilderness study areas, or national recreation areas; therefore there will not be adverse impacts.

4. Inventoried roadless areas.

The project is outside inventoried roadless areas; therefore there will not be adverse impacts.

5. Research Natural Areas.

The project is outside Research Natural Area; therefore there will not be adverse impacts.

6. American Indians and Alaska Native Religious or cultural sites, archaeological sites, or historic properties or areas.

This decision complies with all applicable laws and regulations. Surveys were conducted in the treatment units for Native American religious or cultural sites, archaeological sites, and historic properties or areas that may be affected by this

decision. A 'no properties affected' determination was made. Consultation in this finding occurred with the State Historic Preservation Office (SHPO).

Implementation Date

This project may be implemented immediately.

Administrative Review or Appeal Opportunities

This decision is not subject to administrative appeal pursuant to Forest Service Regulations at 36 CFR 215.8(a)(4).

Contact Person

For additional information concerning this decision or the Forest Service Appeal process, contact Theresa Stevens Savery, Project Leader, at (303) 245-6414 or Laura Pramuk, Public Affairs Specialist, at (303) 245-6429.



DANIEL A. LOVATO
District Ranger

9/30/2004
DATE

- Enclosures:
- a. Project Area Maps
 - b. Treatment Description Table
 - c. Appendix A: Project Design Criteria and Mitigation Measures
 - d. Appendix B: Scoping Comment Review

References

Hann, Wendel, Havlina, Doug, Shlisky, Ayn, et al. 2003. Interagency and The Nature Conservancy Fire Regime Condition Class website .USDA Forest Service, US Department of the Interior, The Nature Conservancy, and Systems for Environmental Management. <http://www.frcc.gov/>

USDA Forest Service. 1999. Forest Service Handbook – Watershed Conservation Practices Handbook 2509.25, Region 2 Supplement, Denver, CO, March 22, 1999.

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USDA 2001. U.S. Department of Agriculture, Forest Service. Guide to Noxious Weed Prevention Practices, Version 1.0.
http://www.fs.fed.us/rangelands/ftp/invasives/documents/GuidetoNoxWeedPrevPractices_07052001.doc.

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USDA Forest Service. 2001. Guidelines for Revegetation for the Arapaho-Roosevelt, Grand Mesa-Uncompahgre-Gunnison, and Medicine Bow-Routt National Forests and Pawnee and Thunder Basin National Grasslands. http://fsweb/eco/reveg_notebook/

Evergreen Fuel Reduction Project

Appendix A

Project Design Criteria and Mitigation Measures

Watershed, Soils, and Fisheries Resources

This project is designed to meet watershed health, long-term soil productivity, and to protect water quality goals and objectives outlined in the Watershed Conservation Practices (WCPs) Handbook (Forest Service Handbook (FSH) 2509.25- Watershed Conservation Practices Handbook, Region 2 Amendment No. 2509-25-96-1). There are also standards for soil resources listed in the Soil Management Handbook, Soil Quality Standards, FSH 2509.18-92. The Watershed Conservation Practices and Soil Quality Standards are also called Best Management Practices. The protection of soil, water, and fisheries resources is accomplished by application of all relevant watershed conservation practices and soil quality standards. Some site-specific modifications to the watershed conservation practices are listed below.

- 1) No ground based equipment operation shall occur in riparian buffer zones except at designated locations (approved by hydrologist or fish biologist or soils scientist) for crossings. The riparian buffer zones also called the water influence zone are 100 ft. on both sides of the creek or water body.
- 2) If wetlands are located within harvest units during project layout, they will be excluded. A 100 ft. buffer would be provided to minimize blowdown of surrounding vegetation. If water levels are low during implementation, measure the 100 ft. distance from the edge of the hydrophytic vegetation along the edge of the wetland. The botanist or hydrologist will work with the implementation crew to designate these buffers.
- 3) To ensure detrimental compaction does not exceed 15% of any activity area, mitigate by tilling the landings and the main arterial skids within 100 ft. of the landings where feasible. Use tillage only where necessary to alleviate compaction. Follow tillage treatment with erosion control measures such as installing water-bars, covering the area with slash or seeding where appropriate.
- 4) Skid trails and landings should be designated prior to treatment, reuse existing skids as much as practicable to minimize new disturbance.
- 5) If machine piling of slash is done, conduct piling to leave topsoil in place and to avoid displacing soil into piles or windrows (Soil Quality Standards R2, supplement FSH 2509.18-92-1). This is accomplished by construction of burn piles on landings. If burn piles are constructed off landings, use a grapple-piler or other machinery that lifts and places material to create the pile.
- 6) On soils with a severe limitation rating for total tree harvest (topsoil thinner than 1 inch, topsoil organic matter less than 2%, or effective rooting depth less than 15 cm), retain at least 2-4 tons/acre of the fine logging slash (less than 3" in diameter) in patch cuts. This slash retention mitigation is designed to provide material for nutrient cycling. Slash should be scattered and slash height should

not exceed 12 inches. To meet fuels concerns, total fuel bed depth shall not exceed 12 inches. * *This management requirement is adapted from Standard 14a (Watershed Conservation Practices Handbook, FSH 2509.25, Section 14.2). Slash is retained to provide organic material for nutrient cycling and effective ground cover. Slash height is restricted to address fuels and fire concerns.*

- 7) Where slash piles are burned, monitor and evaluate the need to scarify the soil and rake in topsoil, duff and scatter woody debris from the surrounding area, and revegetate where needed.
- 8) Unit 28A will be surveyed prior to implementation to determine if there are any wetlands present to be avoided.

Scenery Resources

- 1) In patch cuts, mechanical and manual thinning units, tree stumps should be flush cut or cut as low as possible (maximum height of 6") in foreground *Partial Retention* areas if treatment areas are visible from the system roads and trails, including South Black Mountain Drive, Cub Creek Trail and Maxwell Falls system trails and trailheads. The District Landscape Architect will field verify *visible areas* (foreground), and train, if needed, implementation crews on stump cutting technique on flat and sloping ground.
- 2) In patch cuts, mechanical and manual thinning units, in foreground and middle ground *Partial Retention* areas, unit boundary edges should blend with the natural landscape. Unit boundary edges should not be straight lines, but should mimic natural-appearing edges that are commonly found in the surrounding landscape (this effect may be achieved through prescription design in most cases.) The District Landscape Architect will work with the implementation crew to achieve this effect.
- 3) Landings and/or log decks, and equipment staging areas will be hidden or camouflaged to the extent possible as viewed from South Black Mountain Drive, the Cub Creek Trail and Trailhead and the Maxwell Falls Trail and Trailheads. Landings and/or slash pile material will be located within treatment units, such as patch cuts or 1/5-acre openings, to the extent possible.
- 4) Slash piles visible from roads and trails in foreground *Partial Retention* areas will be burned within three years following treatment or when burning requirements are met (i.e. smoke permits, weather conditions and available resources).
- 5) Residual slash pile material that is not consumed during pile burning will be scattered to meet soil rehabilitation or ground cover requirements and scenic integrity objectives in the treatment area.
- 6) In all treatment areas where leave trees are marked w/ tree marking paint, marking will occur on the backside of the tree if trees are visible from adjacent roads or trails, excluding boundary trees.
- 7) In Unit 1A, maintain randomly spaced no-cut zones along Cub Creek Trail Road, Cub Creek Trail, Maxwell Falls Trail, and the temporary road A1 in Unit 6A. The District Landscape Architect will work with the Forest Service Implementation Crews to layout the no-cut zones.

- 8) Where applicable integrate patch cut openings with adjacent natural appearing openings, aspen, and natural rock outcrops.

Recreation Resources

- 1) Post warning signs and public announcements will be used to notify recreationists and residents of thinning and burning activities at trailheads, trail crossings, and along roads in the area.
- 2) In all treatment units operations will not be conducted on Memorial Day, 4th of July, and Labor Day holidays weekends and Sundays, and operating times for heavy equipment and chainsaws are limited to the hours of 7:00 am to 7:00 pm.
- 3) Notify outfitter guides prior to the onset of operations in units located in the vicinity of Cub Creek Trail and Trailhead and the Maxwell Fall Trails and Trailhead.

Fuels Resources

- 1) Treated stands will be monitored for wind throw within 3 years of treatment. Following monitoring, treatment of wind throw may be required. Wind throw treatments may include any combination of mechanical or manual actions such as crushing, removal, bucking, dispersing, piling or jackpot burning.
- 2) Pile burning will occur when burn conditions are appropriate. The required state smoke and burn permits will be acquired and followed.

Noxious Weeds

These prevention measures are designed to comply with the Guide to Noxious Weed Prevention Practices (USDA 2001) and the Arapaho and Roosevelt National Forests and Pawnee National Grassland Noxious Weed Management Plan (USDA 2003).

- 1) Treat, flag, and avoid all occurrences of orange hawkweed, oxeye daisy, and yellow toadflax in all treatment units prior to implementation. Treat as many occurrences of Canada and musk thistle as possible prior to project implementation. Flag and avoid Canada and musk thistle occurrences during project implementation.
- 2) Coordinate with District Weed Coordinator to locate landings, staging areas, and other areas of severe soil disturbance to best reduce the risk of the spread of invasive plants.
- 3) Inventory treatment unit 28A for invasive plants prior to project implementation.
- 4) Require contractor, cooperator, and Forest Service equipment (not including service trucks that remain on roadways) to be clean, i.e. free of mud, dirt, and plant parts, prior to entering National Forest System lands. Clean equipment when initially entering each zone and when moving from one zone to another (West Zone includes units 26A and 34A; Central Zone

includes units 1A, 6A, 6B, and 31A; East Zone includes units 5A, 32A and 32B).

- 5) Comply with FS Rocky Mountain Region Order NO. 02-97-01 requiring use of certified weed-free hay, straw, or mulch in all Forest Service activities.
- 6) As soon as possible after slash treatments are complete, reclaim temporary roads, skid roads, fire lines, and other disturbances by a combination of covering them with slash and raking in dirt and duff from adjacent areas and revegetation where needed.
- 7) Where slash piles are burned, monitor and evaluate the need to scarify the soil and rake in topsoil, duff, and woody debris from the surrounding area and revegetate where needed.
- 8) Inspect project areas for at least three growing seasons after ground-disturbing operations, and determine treatment and further monitoring needs based on the results.

Botany Resources

- 1) The meadow area in treatment unit 34A where moonworts occur will be flagged prior to project implementation and avoided during project activities.
- 2) Areas where dwarf dogwood occurs will be flagged prior to project implementation and avoided during project activities.
- 3) Treatment unit 28A will be surveyed for botanical resources prior to project implementation.

Wildlife Resources

- 1) No treatment will occur within $\frac{1}{4}$ mile of any known or discovered goshawk nest(s) while site is active. The restricted distance may be determined to be less by a Forest Service Biologist if terrain or other factors adequately buffer nesting goshawks from disturbance. If a new active nest is detected, appropriate mitigations will be implemented.
- 2) No treatment will occur from December 1st to March 30th within the portions of the Yankee Creek Units 26A and 34A that are located in key elk winter range as designated by Colorado Division of Wildlife. The timing could be modified by the District Biologist during implementation depending on the elk herd locations and winter snow conditions.

Heritage and Cultural Resources

- 1) If previously undiscovered cultural sites are encountered during the course of treatment the operator or hand crew will stop treatment and contact the Contract Administrator, who will then contact the Archaeologist to do their review. The Archaeologist will consult with the SHPO to determine the course of action. If affected properties are discovered after treatment, the Forest Service will document any damage and consult with the appropriate SHPO and Council pursuant to 800.13(b).

Roads

- 1) Dust abatement will be applied along Forest Roads 197.2A, 797.1A, 3W748.1, 2W748.1, temporary roads A1 and D1, and other areas as needed.
- 2) For temporary roads constructed for this project obliterate the road prism when use ends on the specific temporary road. Reclamation work to include as needed on specific temporary roads could include the following actions.
 - a. Pulling culverts and restoring stream crossings to natural grade.
 - b. Reestablishing natural drainage patterns with permanent rolling dips.
 - c. Ripping or subsoiling along the entire disturbed length, except where vegetation has already been established.
 - d. Seeding or planting along the ripped or recontoured sections with native vegetation, consistent with the 2001 ARNF Revegetation Policy.
 - e. Recontouring the road prism to the original land contours for the entire disturbed length.

Evergreen Fuel Reduction Project

Appendix B

Scoping Comments Review

Comments were received concerning the application of patch clear-cuts, the location of the patches, the size of the patches, and the protection of old growth trees.

There is a combination of vegetation treatments including thinning (20 to 30% basal area removal), small group removals (1/20th to 1/5th acre), clear-cuts (1 to 10 acres), and aspen enhancement (removal and girdling of conifers) that are proposed in this project. By creating openings (i.e. patch clear-cuts), the homogenous crown canopy, indicative of lodgepole pine stands, is broken up, resulting in an alteration to potential fire behavior and an edge effect that benefits some wildlife species. Increased fire hazard in the clear-cut units as a result of regeneration is not expected to occur for 3 to 10 years. Subsequent treatments (5 to 20 years) are expected to occur as a part of future management and are required in order to maintain fuel reduction objectives, especially in the wildland-urban interface. The location and size of the clear-cut units were identified to minimize visual impacts and soften the edges of past treatments (see response to scenery comments below).

Lodgepole pine has a shallow root system, to minimize the potential for blow-down, no more than 30% of the existing basal area will be removed with this treatment. Other species (i.e. Douglas-fir, aspen, ponderosa pine) will be favored as leave trees to maintain a presence within the lodgepole pine dominated stand. Topographic features, soil conditions and stand characteristics will determine the location, intensity, and design of the thinning and clear-cut units to minimize the potential for blow-down.

Treatment areas within the project area were identified through an interdisciplinary process and were limited by Forest Plan direction, topography, land ownership, and access. Old growth areas were identified early in the planning process and will not be treated in this project.

Forest ecosystems provide many things which people value. These elements change as forests grow and are impacted by natural disturbances and human activities. The Evergreen Geographic Area is dominated by sapling and pole sized lodgepole pine with a homogenous crown canopy covering almost 90% of the area and very little species variation except in isolated pockets. Multiple stand structures (a range of young to old growth stands) provide a variety of aesthetic and recreational values and varying levels of resistance to fires, windstorms, and insect and disease outbreaks. Varying stand structures also provide a departure from a homogenous crown canopy dominant in the existing landscape.

Comments were received concerning the treatment of slash as a result of project implementation and included slash pile size, number, disposal method, and the effects of burning piles.

For the purposes of this project analysis, it is assumed that, regardless of pile size, pile burning creates a high burn severity impact due to heat and residence time of the fire. Larger piles do

generate more heat and burn longer. Formation of water repellent layers and mortality of microorganisms is likely to occur but the extent of these impacts is limited to the burn pile site. One large pile impacts less ground (area) than several small piles. In units where trees are processed on a landing, the burn pile is also created on the landing, limiting impacts to one site. Additionally, landing sites are generally flat, minimizing erosion potential. The primary objective of Watershed Conservation Practice 14.1 (Standard 13) is to maintain long-term soil productivity by limiting severely burned areas to less than 15% of an activity area (FSH 2509.25). Mitigations such as tilling/scarifying will promote recovery by breaking up water repellent layers and increasing water infiltration. Distributing woody debris on the burn pile adds some protective ground cover and provides organic material for decomposition, jump-starting nutrient cycling processes.

Most of the slash generated from the proposed activities will be piled and burned. Generally, large piles are created on landings in the mechanically treated units. In the hand treated units, small piles will be dispersed throughout the unit. Piles will remain on site to cure for about a year before they are burned. Piles will be located to minimize impacts to scenic quality of the area and once piles are cured, they will be burned at the first opportunity. Windows of opportunity to burn piles depend on fire hazard, smoke dispersal conditions and personnel availability.

In patch cut units, 2-4 tons/acre of slash will be lopped and scattered to benefit soil resources (Watershed Conservation Practices Handbook, FSH 2509.25, Section 14.2, Standard 14a). Due to high stand densities and topographic constraints, chipping was considered but not proposed as a slash disposal method for this project.

Comments were received concerning erosion control methods, and protection of riparian areas from the effects of erosion and sedimentation.

This project is designed to support "watershed health" and "long-term soil productivity" goals and objectives outlined in the Watershed Conservation Practices Handbook (Forest Service Handbook 2509.25) and the Soil Management Handbook (Forest Service Handbook 2509.18). Protective ground cover is retained, according to standards outlined in the Soil Management Handbook, to reduce erosion hazard. Particular attention is paid to retaining ground cover on patch cut areas because potential for needle cast and slash recruitment potential is low following treatment. Erosion/sediment control practices such as wet weather operating restrictions, cross drainage installation, use of buffers (filter strips) are examples of methods to reduce soil erosion and sediment delivery to stream channels from roads and other disturbed areas. These methods are fully described in the Watershed Conservation Practices Handbook.

As outlined in the Decision Memo under "Floodplains and Wetlands", a 100 ft buffer is applied to protect intermittent and perennial streams and wetlands.

Comments were received concerning the potential spread of noxious weeds and invasive plant species.

Letters were received concerning the potential for increased risk of invasion and establishment of invasive plant species as a result of the Evergreen Fuel Reduction Project. Concerns related to: spread of weeds by heavy equipment, creating habitat through ground disturbance and canopy openings, impacts to wildlife habitat, increased risk of fire, the need for inventory, monitoring, and treatment before, during and after treatment, and the presence of orange hawkweed in the vicinity of the project.

Most treatment units for the Evergreen Fuel Reduction Project were surveyed for noxious weeds in 2002, 2003, and 2004. The Invasive Plant Specialist Report prioritizes occurrences by treatment unit based on aggressiveness of the species, current area occupied, potential to eliminate the species, and status according to the Colorado Noxious Weed Law.

It has been found that prevention is key to controlling invasive species. For that reason, top priority is generally given to eliminating weeds new to an area and especially species that are particularly aggressive. Priority weeds for treatment in the Evergreen project area are yellow toadflax, oxeye daisy, and orange hawkweed. Although Canada thistle and musk thistle are common in the area, they are already so widespread that it may not be possible to eradicate these species.

The Invasive Species Specialist Report and the Evergreen Fuel Reduction Project Decision Memo list mitigation measures/design criteria that will limit the establishment and spread of invasive plants in the project area and the vicinity. Given the current number and extent of weeds in the project area, it may not be possible to treat all occurrences prior to project implementation. Monitoring and treatment of occurrences of invasive plant species is important to maintain and enhance ecosystem integrity. A timely, adaptive, integrated, and ongoing approach will be needed to reduce the spread of noxious weeds. The Arapaho and Roosevelt National Forests and Pawnee National Grassland Noxious Weed Management Plan (2003) will be used as guidance for implementation of weed management in the project area.

Comments were received concerning the potential to disturb wildlife and wildlife habitat as a result project implementation.

One of the objectives for this project is to enhance wildlife habitat. Estimated effects indicate generally improved habitat conditions and only short-term, temporary disturbance and/or displacement of individual animals. Both habitat and inhabitation by wildlife are expected to quickly respond. Forest thinning will improve habitat for numerous species. Increased human disturbance associated with road construction and project operations will be temporary. Public use of temporary roads during implementation will be discouraged and temporary constructed roads will be closed and obliterated after implementation. Since temporary roads will be closed, habitat effectiveness will be maintained as a result of project activities. Nest trees and wildlife use trees such as snags are identified and protected according to Forest Plan Standards and Guidelines. Goshawk surveys have been completed for this project area. If new Goshawk nest trees are identified during implementation, they will be protected. See Appendix A for more

information. The details of proposed treatments and effects on wildlife species and habitat were considered and analyzed in the Biologist Report, on file at the Clear Creek Ranger District.

Comments were received concerning road construction, heavy equipment traffic on forest roads near homes and the potential for continued or increased use in the area after the project is completed.

The majority of the Forest Service system roads in the project area are identified as either Maintenance Level 1 (4-wheel drive roads that are closed) or Level 2 (4-wheel drive roads that are open). There are no new permanent Forest Service System roads constructed for this project. However, two system roads (approximately 0.60 miles) are being realigned from their current locations. 1.95 miles of existing non-system roads in treatment units on National Forest land will be closed and rehabilitated.

All temporary roads will be obliterated and closed upon completion of the project. No public access will be allowed on the approximately 2.26 miles of temporary roads that will be constructed for this project. All system roads that are not closed (gated) to public use are open for multiple-uses by recreationists and other users. Recreational vehicles such as ATVs, motorcycles, OHVs and mountain bikes are not allowed off of designated system roads and trails.

Heavy equipment traffic, noise and dust are minimized to the extent possible. Mitigation measures will be in place to limit traffic to weekdays and Saturdays (excluding summer holiday weekends), and the heavy use roads will receive dust abatement. Heavy equipment access into treatment units will be minimal and temporary. Typically, there will be a one-time move-in and move-out of heavy equipment for most treatment units. Forest workers will arrive at treatment units in the morning and leave at the end of the work day. You should expect to hear equipment operating in the forest during the day.

Comments were received with concerns regarding the effects to scenery and visual quality that may result from project implementation.

The effects of patch cuts (clear cutting) on scenery in this project are designed to meet the Forest Plan Moderate Scenic Integrity Objectives. Project Design Criteria for treatments, including patch cut units, as well as the six Mitigation Measures outlined in Appendix A will insure that all treatments will meet Forest Plan moderate scenic integrity objectives and/or the Partial Retention Visual Quality Objectives for the Evergreen Project area.

In the Evergreen Project Area, patch cuts and thinning units will repeat the form, line, color, texture and pattern of the natural occurrences common in the surrounding area. Depending on the existing scenic condition, and viewer position, the prescription design of units will vary.

For example, in some areas created openings will be designed to follow natural edge lines, such as, the existing directional emphasis of the ridgeline. Openings will also be created adjacent existing rock outcrops or aspen clones, which will provide natural edge lines, while creating vistas from the Cub Creek Trail or encouraging aspen regeneration -in other areas of the project.

When line or form cannot be achieved through prescription design, mitigations will be used to achieve the desired effect, such as feathering to create natural appearing line and form.

Thinning treatments will encourage the growth of the understory and increase landscape diversity in the long term. There will be random no-cut zones along trails and roads. The mitigations and design criteria outlined will reduce the impact of the proposed treatments in the short term and help insure that the long-term result will be beneficial in their effects to scenery.

Comments were received concerning the planning process and community involvement, and the environmental analysis documentation required for this decision.

As stated in the attached Decision Memo, this project is designed to treat hazardous fuels on National Forest System lands in the wildland-urban interface near Evergreen. It is designed not only to reduce fuels adjacent to private property, but also to protect natural resource and enhance values such as water quality, forest health and wildlife habitats. This project will be implemented by contract crews and operators awarded through a bidding process and by Forest Service crews and Americorps volunteers. Many efforts have been made to notify property owners and the interested public about this project. Numerous mailings were sent and public meetings were held to inform interested members of the public about the project and to solicit comments and concerns regarding the proposed activities. The public has been allowed to participate and comment on this project for nearly 10 months. Three public meetings have been held during the planning process allowing the public to participate as the project was being developed. An extension to the final scoping period was added to allow the public to respond to additional project details including specific patch clear-cut locations. Several modifications to treatment unit locations and size were made as a result of this process. A public notification plan is being developed to be used during the implementation phase of the project. Notification may include press releases, roadside signage and phone contacts to alert nearby residents of operations. Please see the discussion on public involvement in the Decision Memo for details on this process.

The decision to use the Healthy Forest Initiative (CE category #10) and Decision Memo as the decision making tool for this project was based on the scope and purpose of this project, the initial public involvement and interest we received, the support we have received for this proposal and the anticipated impacts identified during the environmental analysis. This project falls within a category that can be excluded from documentation in an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) because the scope of impacts fall within an acceptable range for this type of activity. The categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects which may significantly affect the quality of the human environment. Thinning and forest management at this scale is considered to be normal and routine. Issues and public concerns related to this project have been mitigated through project design criteria, mitigation measures (see attachment) and management requirements as specified by applicable laws and policies and Forest Plan standards and guidelines.

Comments were received regarding the long-term funding for project activities and funds for adjacent homeowners to assist in fuel reduction on their property.

Funding for the implementation of this project comes from Congress on an annual basis. Money is appropriated under the authority of the National Fire Plan. During the implementation phase, contracts will be awarded through a competitive bidding process that will include treatment of specific units and rehabilitation of roads and other impacted areas that may result from implementation. This project is not a timber sale and funding is not dependent on the sale of timber. Some material may be sold, but it is not a key component of this project.

Grant money is available to assist adjacent homeowners in fuel reduction and the creation of defensible space on their property. It is available through the Colorado State Forest Service. Check with the CSFS office in Golden, CO for applications and due dates to be eligible to receive these funds.

easement will be issued for the realignment and the road will remain as 797.1A. The old route will be decommissioned and a portion obliterated. Specifically, 797.1 is located on NFS land and private land and the portion on NFS land will be obliterated. Road 797.1A is currently located entirely on private land and will be re-aligned onto NFS land and private land and the permanent easement to the United States will be modified.

Manual treatment Unit 28A is located along Pinewood Road off of Blue Creek. Since this unit is within an isolated 40 acres of NFS land and road access is not needed into the Unit, permanent access will not be acquired. Access will be coordinated through the State Forest Service.

Approximately 1.95 miles of system and non-system roads will be decommissioned (797.1, 797.1A, W797.1, 1W244.1, and 2W789.1) and 0.60 miles of a system road will be realigned (797.1A) with this project. Also, the realignment will enable the decommissioning of 797.1, which a portion is actually located along the Cub Creek Trail.

Approximately 2.26 miles of temporary roads will be constructed within Units 1A, 6A, 6B, 32A, 32B and obliterated after the project.

Reasons for Categorically Excluding this Project

Decisions may be categorically excluded from documentation in an environmental impact statement or environmental assessment when they are within one of the categories identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15 Sections 31.1b or 31.2, and there are no adverse impacts to any extraordinary circumstances related to the decision that may result in a significant individual or cumulative effect on the quality of the human environment.

I have concluded that this decision is appropriately categorically excluded from documentation in an environmental assessment or environmental impact statement as it is an activity within the category of exclusion and there are no extraordinary circumstances or impacts related to the decision that may result in a significant individual or cumulative effect on the quality of the human environment. My conclusion is based on information presented in this document and the entirety of the Project File and Record.

The decision is within FSH 1909.15 Section 31.2, Category 10 that includes up to 1,000 acres of treatment of hazardous fuels in the Wildland Urban Interface (WUI) through the use of prescribed fire and/or mechanical treatments. This decision is consistent with the 1997 Revision of the Land and Resource Management Plan for the Arapaho and Roosevelt National Forests and Pawnee National Grassland as required by the National Forest Management Act.

Public Participation

On December 8, 2003 and January 27, 2004 the Forest Service held public meetings at Evergreen High School. We mailed approximately 350 post cards to residents of the area, and local governmental and fire fighting agencies. We advertised these meetings in the Canyon Courier newspaper and an article was published in the paper describing the

project. On July 15, 2004 the Forest Service met with representatives of the local fire departments, including Evergreen, Clear Creek, and Elk Creek Fire Departments. On July 30, 2004 a letter was sent to approximately 2,500 people and groups interested in fuels reduction in the Evergreen area of the Arapaho-Roosevelt National Forests and Pawnee National Grassland. After the scoping letter was mailed, the Forest Service held a public meeting at the Evergreen Conference Center on August 18, 2004 for the public to comment on the Proposed Action. A second letter was sent to the involved public on September 7, 2004 with additional treatment details and a larger scale map. The public was given until September 17, 2004 to comment on the proposed action. The specialists on the team, including the Landscape Architect, Silviculturist, Hydrologist, Engineer, Lands Forester, and Project Leader have made additional trips into the field with interested neighbors to gather more input for the project during August and September of 2004.

Extraordinary Circumstances

In determining the appropriateness of using the categorical exclusion, a determination of the potential impact to the identified resources conditions identified in FSH 1901.15 Section 30.3(2) must be made. The following list of the potential effects to the resource conditions from project activities.

1. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.

There is one federally listed threatened wildlife species Canada lynx (Lynx canadensis) that has habitat in the Project Area. The determination in the biological evaluation is "may affect, not likely to adversely affect" because existing marginal foraging habitat will be improved.

Northern goshawk (Accipiter gentiles) and boreal toad (Bufo boreas boreas) were evaluated in the biological evaluation. Determinations are "beneficial impact" for the northern goshawk and "no impact" for the boreal toad.

No federally listed threatened or endangered plant or aquatic species occur within the Project Area.

Plant species of concern found in the Project Area include Moonwort species (Botrychium spp.) and dwarf dogwood (Cornus canadensis). One species of moonwort (B. lineare) is on the Forest Service sensitive species list. The plants found in the Project Area do not appear to be the sensitive moonwort, but positive identification has not been made. Treatment in this unit has been modified so to avoid impacts to moonwort plants. The determination for Botrychium lineare is "May adversely affect individuals, but is not likely to result in a loss of viability on the Planning Area, nor cause a trend to federal listing or a loss of species viability rangewide" in the Biological Report.