

1.0 PURPOSE AND NEED

1.1 INTRODUCTION

The U.S. Forest Service (Forest Service or USFS) has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969 and other relevant Federal and state laws and regulations. This EA discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action and alternatives for the proposed Locke Mountain Fuels Management project (project). The project proposes to reduce hazardous fuels and improve habitat conditions, in general, throughout the Locke Mountain analysis area on the San Carlos Ranger District (SCRD), San Isabel National Forest (Pike and San Isabel National Forest and Cimarron and Comanche Grasslands [PSICC]) through the application of varied fuels treatment techniques.

The purpose of the Locke Mountain Fuels Management project is to create sustainable forest conditions that are resilient to fire, insects, and diseases, while providing for diverse wildlife habitats, recreation 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.

This chapter summarizes the Purpose and Need for the project and includes a description of the location, analysis area, public involvement activities, and key issues.

1.1.2 Analysis Area Description

The analysis area consists of approximately 4,680 acres of National Forest System (NFS) lands located in the Wet Mountains southwest of Canon City in Fremont and Custer Counties, Colorado (Maps 1 and 2). The entire analysis area is located within the SCR D on the San Isabel National Forest. The analysis area is located in T 20 S, R 70 W, Sections 19 and 28-34; T 20 S, R 71 W, Section 25; and T 21 S, R 70 W, Sections 4, 6, 8, and 9. It is located in the Oak Creek, Coal Creek, Newlin Creek, and Upper Oak Creek sixth-level watersheds. The elevation in the analysis area ranges from approximately 8,000 to 9,500 feet. The topography of the area varies from flat, open, park-like grassland meadows to steep, rugged forested terrain. The forested areas consist of a mosaic of ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), limber pine (*Pinus flexilis*), white fir (*Abies concolor*), pinyon pine (*Pinus edulis*), Colorado blue spruce (*Picea pungens*), Engelmann spruce (*Picea engelmannii*), and aspen (*Populus tremuloides*). Nonforested areas include meadows, stands of mountain mahogany (*Cercocarpus montanus*), and Gambel oak (*Quercus gambelii*), and rock outcroppings. Portions of the analysis area were logged in the 1970s and early 1980s; precise mapping of these logging units is not available. The area is currently managed for multiple-use, including recreation, wildlife habitat, livestock grazing, and forest products.

The PSICC 2007 Fire Management Plan defines four distinct Fire Management Units (FMU) to capture all areas with burnable vegetation occurring on PSICC land (USDA 2007a). An FMU is a management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, and fire regime groups that set it apart from the management characteristics of an adjacent FMU. The analysis area is located within the Lower Arkansas FMU. At lower elevations, the fuels complex of the Wet Mountains

(within the Lower Arkansas FMU) consists of forbs, perennial grasses, oak brush, ponderosa pine, mixed conifer, and pinyon and juniper (USDA 2007a). The higher elevations consist of bristlecone pine (*Pinus aristata*), mixed conifer, Douglas fir, limber pine, and aspen (USDA 2007a). The majority of fire occurrence within the Lower Arkansas FMU occurs on this mountain range. Most large fires are wind driven, and typically grow large due to the continuity of fuels in the area and the alignment of the mountain range relative to the predominant southwest wind patterns (USDA 2007a).

1.2 PROJECT PURPOSE AND NEED

1.2.1 Overview and Background

The National Fire Plan (NFP) identifies the area around Locke Mountain as urban interface communities at risk from catastrophic wildfire (Interagency 2001). In addition, the Newlin Creek watershed, which includes the analysis area, provides a substantial portion of the water supply for the City of Florence, Colorado. The NFP identifies two objectives that would be specifically addressed in the Locke Mountain Fuels Management analysis area:

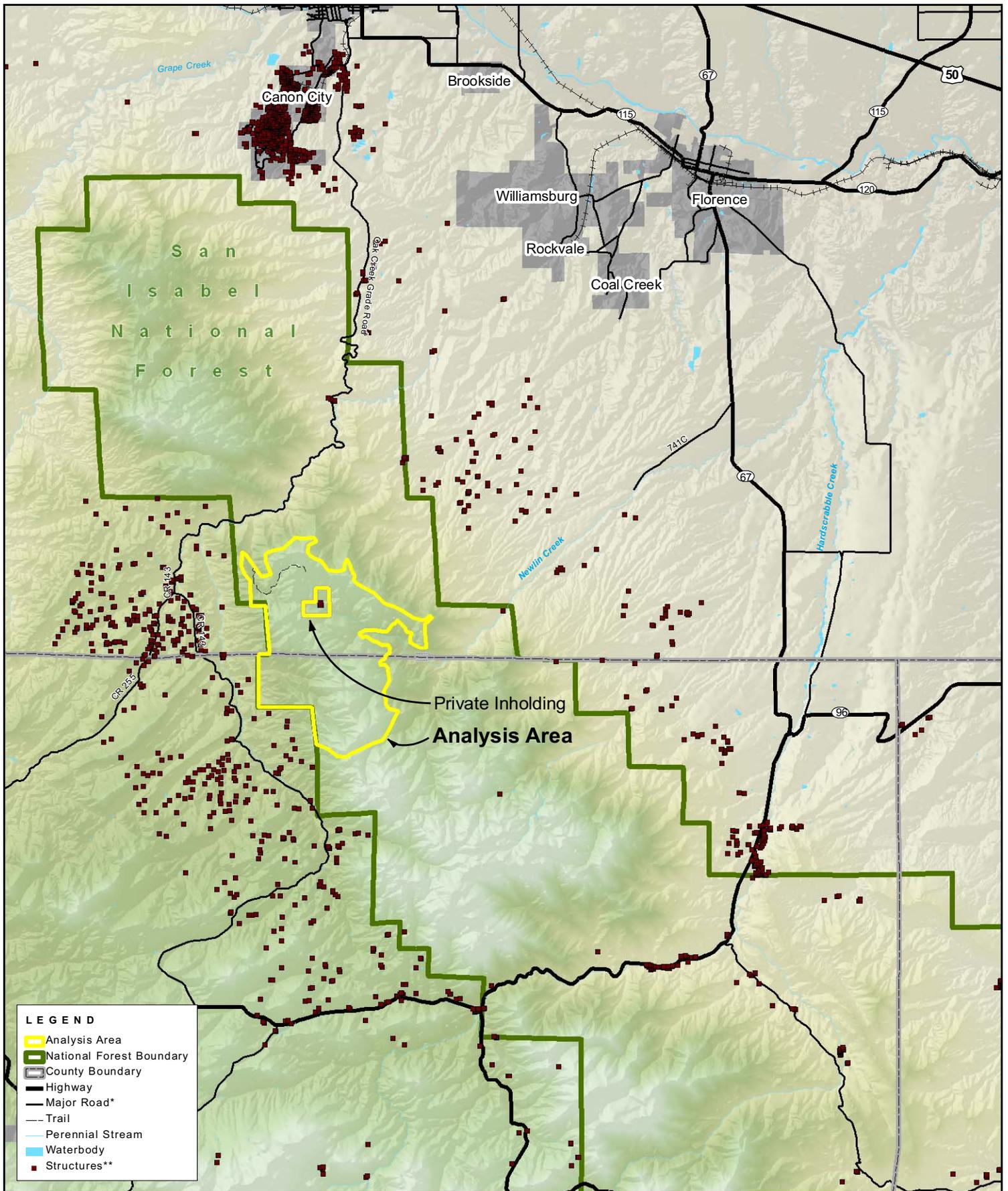
- Assign highest priority for hazardous fuels reduction to communities at risk and readily accessible municipal watersheds.
- Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically intense fires on a priority watershed basis. Methods will include removal of excessive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

1.2.2 Purpose

The primary objective of this project is to accomplish hazardous fuels reduction. Specifically, the proposed project would be designed to reduce the risk, intensity, and hazards associated with high intensity wildland fires on NFS lands adjacent to private lands or communities near Locke Mountain and the City of Florence, Colorado municipal watershed, whose watershed headwaters are located in Newlin Creek in the eastern portion of the analysis area.

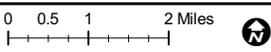
Two of the additional objectives of the Locke Mountain Fuels Management project are to improve forest health, vigor, and diversity for the benefit of wildlife and habitat needs and to promote and restore aspen sustainability/viability within the analysis area (as well as the Wet Mountains on a larger scale).

Aspen forests in the west provide important nesting, roosting, breeding, resting, and foraging habitat for numerous birds and mammals, as well as other wildlife species. Aspen stand improvements would occur through thinning, cutting, and/or burning in existing and remnant aspen stands. Removal of conifers in areas where aspen is still present; conducting patch cuts in aspen stands; and conducting prescribed burning in conifer-encroached or existing degraded/remnant aspen stands would also be important methods of accomplishing the objective stated above.



LEGEND

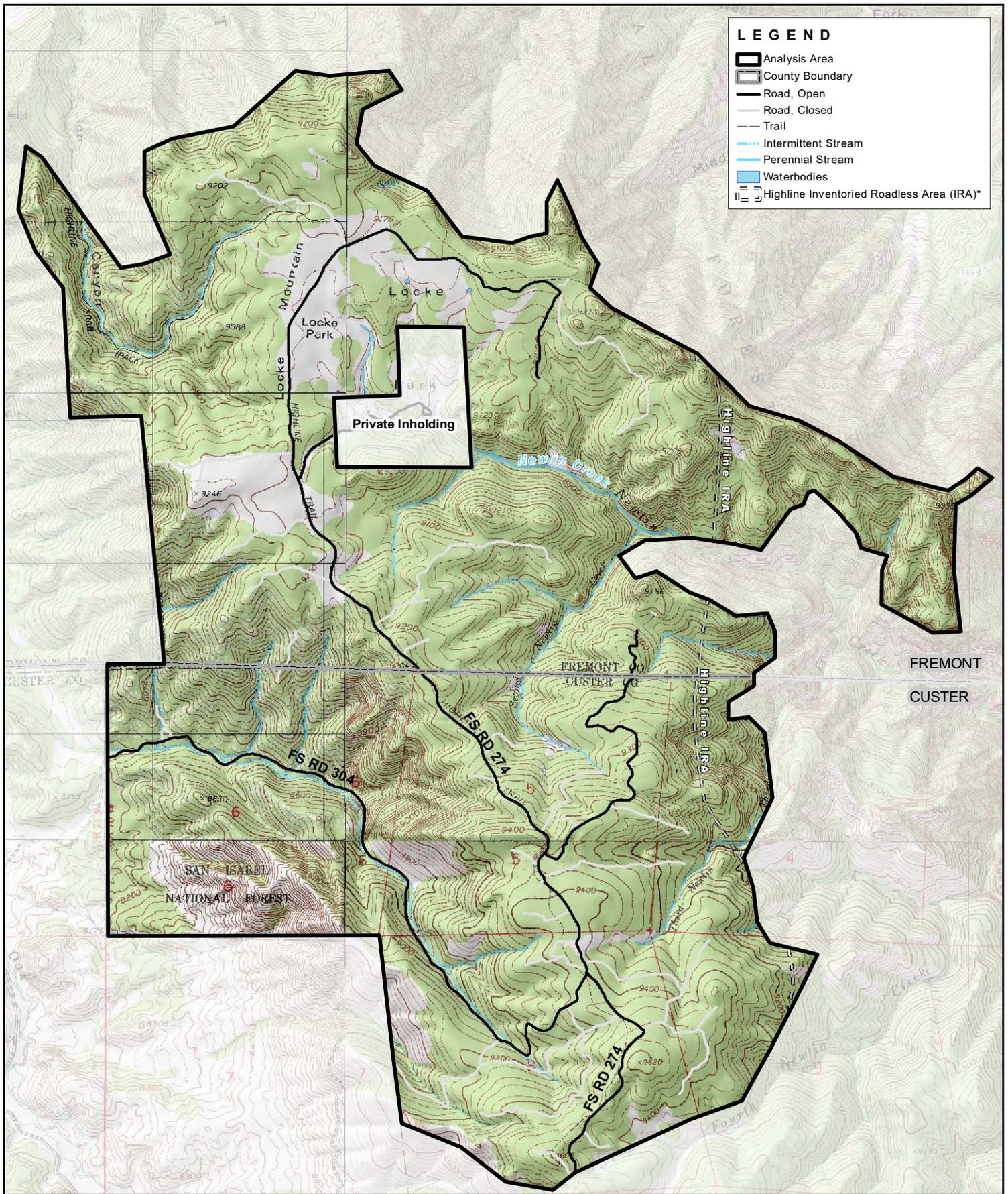
- Analysis Area
- National Forest Boundary
- County Boundary
- Highway
- Major Road*
- Trail
- Perennial Stream
- Waterbody
- Structures**



*National Forest System (NFS) roads not shown on this maps. (NFS roads are shown on all other maps.)
 **Structure data is based on interpretation of aerial imagery. The extent of data shown is based on the Healthy Forests Restoration Act definition of wildland-urban interface areas.

MAP 1
LOCATOR MAP
 LOCKE MOUNTAIN FUELS MANAGEMENT EA
 San Carlos Ranger District

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LEGEND

- Analysis Area
- County Boundary
- Road, Open
- Road, Closed
- Trail
- Intermittent Stream
- Perennial Stream
- Waterbodies
- Highline Inventoried Roadless Area (IRA)*



*Portions of the Highline IRA are located in the analysis area east of the white dashed line.

Source Data: USFS Roads, NHD Streams and Waterbodies (24k)

MAP 2
PROJECT AREA
 LOCKE MOUNTAIN FUELS MANAGEMENT EA
 San Carlos Ranger District



November 12, 2008

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Generally, the techniques used to achieve the forest health and diversity objective would be similar to those described above for aspen. Treatments would employ uneven aged management techniques and patch cuts in the forest cover types to mimic natural disturbances. Ultimately, these treatments would promote a variety of understory conditions such as enhanced habitat structure, diversification of age class and sizes, improved light penetration, and/or a stimulated small prey base.

1.2.3 Need

The need for the project is driven by current forest conditions. Historic fire suppression has created forests that are now more susceptible to large-scale and high intensity wildfire. The proposed project is needed to reduce the risk of this potentially catastrophic event. Additionally, the project is needed to improve local forest health and enhance ecological diversity in the analysis area, improving habitat conditions for plants and animals of montane meadows and woodlands of the Wet Mountains. The project would promote additional acreage for aspen stands and would diversify age-classes of aspen stands, which are used by a variety of wildlife species.

However, similar to other mountain communities in Colorado, numerous subdivisions, private inholdings, and other development near public lands and along the PSICC boundaries have experienced tremendous growth over the last decade and especially in the last several years (USDA 2007a). The area where structures and other human development meet or intermingle with undeveloped public and/or wildland is defined as the Wildland-Urban Interface (WUI). For the purposes of this analysis, the WUI is defined as those areas within a 1.5-mile extent of all structures and basic human improvements consistent with the 2003 Healthy Forests Restoration Act (HFRA). The expansion of the WUI in recent decades has significant implications for wildfire management and impact. The WUI creates an environment in which fire can move readily between structural and vegetation fuels (SILVIS, date unknown).

Approximately 92% of the analysis area (4,300 acres) is located within the 1.5-mile WUI buffer (See Map 3). There are hundreds of homes and related infrastructure on private land at risk in the WUI near the analysis area (see Map 1). Many of the nearby communities and/or subdivisions are experiencing increased growth and development; as a result, homes and other structures are being built in high fire risk areas.

The Mason Gulch fire burned over 11,000 acres in Custer County near Wetmore in 2005, and the Iron Mountain fire burned over 4,500 acres in Fremont County just west of the analysis area in 2002. These fires destroyed homes, infrastructure and other property on private and public lands (110 structures during the Iron Mountain fire); seriously damaged critical watersheds; imperiled fish and wildlife habitat; and reduced recreation opportunities. In the case of the Mason Gulch fire, post-fire conditions resulted in trail closures, diminished hunting opportunities, noxious weed infestations, and changes in wildlife viewing opportunities and landscape aesthetics. Subsequent stormwater runoff from severe thunderstorms during the monsoon season over the fire-denuded landscape caused excessive soil erosion and flooding, destroyed homes, damaged highways and various other facilities, and degraded fisheries. The Locke Mountain fire (also in 2002) burned 16 acres and was poised to become a large wildland fire; however, an effective aerial attack prevented the fire from escaping. The abundance of vegetation in and near these residential developments, combined with long-term drought conditions, has increased the risk for stand-replacing and highly destructive wildfires. With the continued expansion of the WUI, it is likely that increasing numbers of structures could be damaged by nearby wildfires.

Post-fire storm flooding and related impacts are another key concern in WUI areas. Following the Buffalo Creek fire in 1996, a rainstorm event in the burn areas caused severe flooding, which resulted in the washout of Jefferson County Highway 126 and the destruction of the City of Buffalo Creek's potable water and telephone facilities. The rainstorm also resulted in the deposition of hundreds of thousands of tons of sediment into Strontia Springs Reservoir (15-year sediment load), the devastation of miles of pristine riparian habitat along Buffalo Creek and Spring Creek, and the deaths of two Buffalo Creek residents (Agnew 2000).

Additionally, as a result of recent high intensity fires, air quality along the Colorado Front Range has been dangerously degraded for days at a time.

These fires resulted in major economic impacts to local communities and state and Federal agencies. The Mason Gulch fire cost \$5.5 million to suppress and more than \$475,000 for emergency rehabilitation of burned areas. During the 2002 fire season alone, in excess of 10,000 residents were forcibly evacuated from their homes, sometimes for weeks. The impacts to tourism and numerous other businesses also total in the millions.

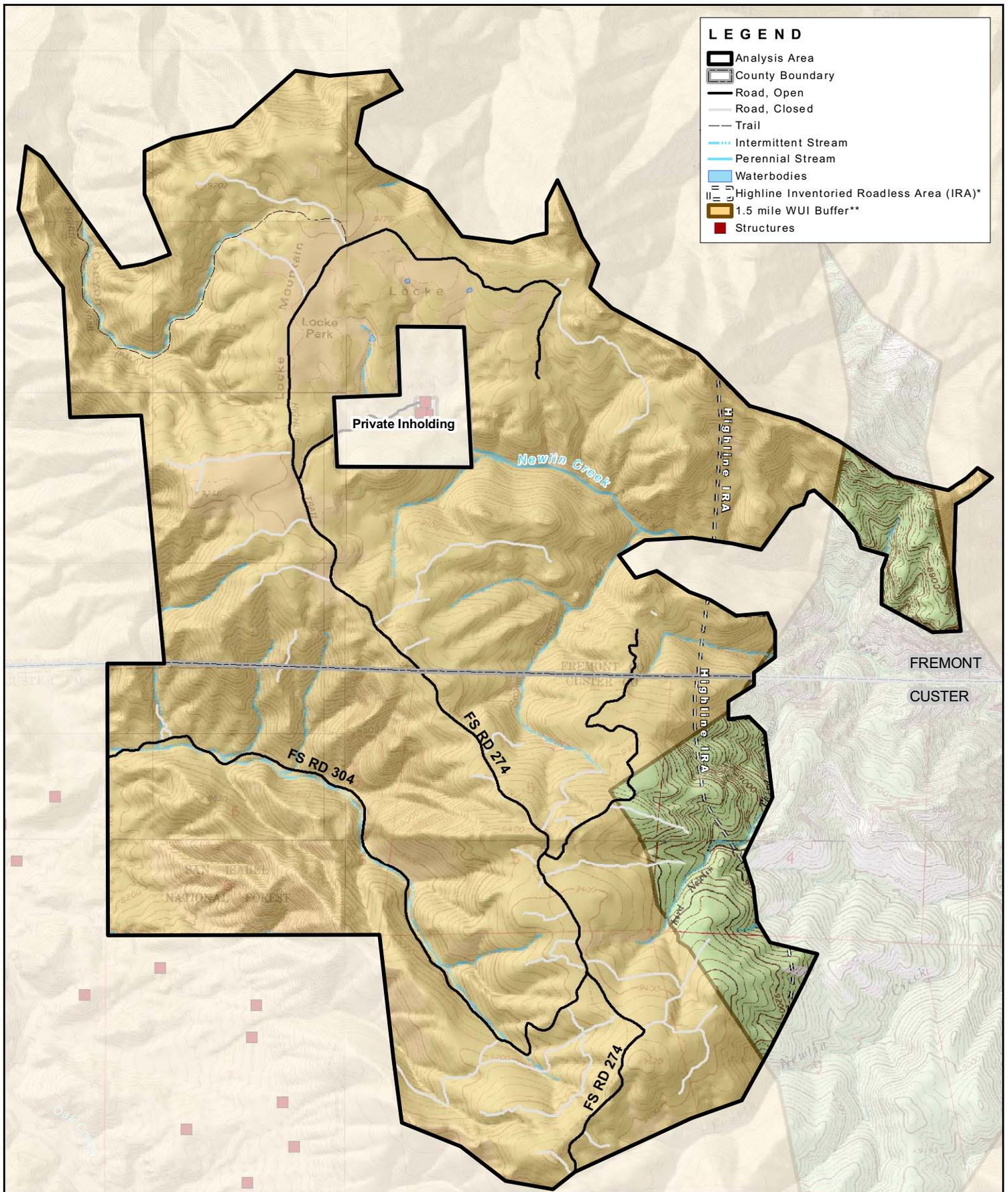
The steadily increasing population and associated development in the area will increase this risk and costs in the future. Hazardous fuels reduction, including tree thinning, prescribed burning, and fuel reduction treatments, can reduce the potential for intense fires and restore habitat and historic ecological functions to the area.

1.2.4 Proposed Project Summary

The proposed project would reduce existing fuel loads through mechanical thinning of forest stands and prescribed fire (broadcast and pile burning), where necessary. Site-specific projects would be implemented to reduce the risk of wildfire near communities at risk. Approximately 3,000 acres in the analysis area would be treated using a range of mechanical methods, including tree removals, mechanical and hand thinning of small diameter trees to reduce ladder fuels, mechanical mastication (e.g., grinding and chipping), and hand and mechanical piling. These treatments would reduce canopy closure in forested areas and decrease the possibility of future crown fires by removing small diameter, suppressed understory trees as well as larger, fire intolerant species such as white fir, both of commercial and noncommercial size.

Prescribed burning would occur only under optimum conditions, such as during periods of low wind speeds or high moisture content in fuels, to reduce the risk of escape and impacts from smoke. Prescribed fire treatments would include mechanical piling and burning and broadcast burns to reduce surface fuels over larger areas. Large pockets of dead and down woody material and slash generated from mechanical treatments would be broadcast burned or piled and burned to further reduce fuel loadings.

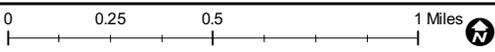
Fire Regime Condition Class (FRCC) categorizes the landscape's departure from the natural fire regime into three Condition Classes. Fire regimes within Condition Class 1 (FRCC 1) are within historical ranges, whereas fire regimes within Condition Class 3 (FRCC 3) have been significantly altered from their historic fire-return interval. The National Wildfire Coordinating Group (NWCG) definitions for FRCC categories will be used as follows throughout the EA (2003):



LEGEND

- Analysis Area
- County Boundary
- Road, Open
- Road, Closed
- Trail
- Intermittent Stream
- Perennial Stream
- Waterbodies
- Highline Inventoried Roadless Area (IRA)*
- 1.5 mile WUI Buffer**
- Structures

FREMONT
CUSTER



MAP 3
WILDLAND URBAN INTERFACE

LOCKE MOUNTAIN FUELS MANAGEMENT EA
San Carlos Ranger District

*Portions of the Highline IRA are located in the analysis area east of the white dashed line.

**Wildland Urban Interface, as defined by the 2003 Healthy Forests Restoration Act.

Source Data: USFS Roads, NHD Streams and Waterbodies (24k), USFS WUI Buffer



November 12, 2008

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Condition Class 1

Fire regimes are within the natural (historical) range, and the risk of losing key ecosystem components is low. Vegetation attributes (species composition, structure, and pattern) are intact and functioning within the natural (historical) range. Fire effects would be similar to those expected under historic fire regimes. Where appropriate, these areas can be maintained within the natural (historical) fire regime by treatments such as fire use.

Condition Class 2

Fire regimes have been moderately altered from their natural (historical) range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from natural frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation and fuel attributes have been moderately altered from their natural (historical) range. Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, in order to be restored to the natural fire regime.

Condition Class 3

Fire regimes have been substantially altered from their natural (historical) range. The risk of losing key ecosystem components is high. Fire frequencies have departed from natural frequencies by two or more return intervals. Dramatic changes would likely occur to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been substantially altered from their natural (historical) range. Consequently, these lands are at the greatest risk of ecological collapse as a result of stand-replacing fire. Where appropriate, these areas would benefit from high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the natural fire regime.

Each of the three condition classes is present within the analysis area: approximately 34% is FRCC 1, 48% is FRCC 2, and 18% is FRCC 3; a minimal number of acres are unclassified (USDA 2006a). This project would improve areas of FRCC 2 and 3 by reducing tree density, raising crown base heights, reducing ladder fuels, follow-up slash treatments, and the creation of openings in the forest canopy. In areas of existing FRCC 1, a combination of treatments would be used to maintain the historic fire regime.

As discussed in Section 1.2.2, the Locke Mountain Fuels Management project is partially designed to promote additional acreage for aspen stands and enhance wildlife habitat through their restoration. The project would assist in age-class diversification of aspen, which would increase the ecological and structural diversity of existing aspen stands. The promotion of aspen and aspen regeneration would occur by removing conifers from aspen clones to reduce competition, removing conifers surrounding aspen clones to promote expansion, and/or burning of existing aspen stands to promote root suckering, as well as promoting new aspen stands in areas where remnant stands exist.

1.3 IDENTIFICATION OF ISSUES

1.3.1 Scoping and Public Involvement Activities

A project scoping letter was mailed (November 2007) to approximately 105 interested parties, including: private landowners, congressional representatives, local fire protection districts, special interest groups, county commissioners, property owners' associations, and local media including radio stations and newspapers. The letter was intended to inform the public of the project and to invite comments and feedback on the proposal and its potential impacts. The public was given approximately 30 days to respond with comments. The Forest Service received four responses via email and U.S. mail, including two responses from private individuals and two responses from environmental interest groups. A project Interdisciplinary Team (ID Team) comprised of Forest Service, Bureau of Land Management (BLM), and contractor resource specialists reviewed all of the comments received to determine the range of issues to be analyzed in the EA. The scoping letter, press releases, mailing list, and all comments received are filed in the Administrative Record, available at the SCRD office in Canon City.

All public comments and concerns received were considered when defining the scope of the EA, and were used to determine the appropriate level of analysis for each resource. The following list of issues and concerns indicates the major items of public concern identified during the scoping process; it is not intended to be a complete or comprehensive list of issues to be analyzed in the EA:

- Fuels reduction is important to reduce risks to City of Florence's municipal water source located in the Newlin Creek watershed
- Maximize community fire protection benefits through appropriate treatment area location
- Restore the natural ecosystem structure, composition, and processes that likely existed in the area prior to settlement by European descendants
- Unless prescribed burning can safely be accomplished without advance manipulation of vegetation or construction of fire lines, no activities should occur in the Highline IRA
- No new roads, not even temporary ones, should be constructed in the IRA
- Protect and retain wildlife habitat consistent with Forest Plan guidance
- Protect [northern] goshawk habitat
- Maintain Abert's squirrel habitat
- Maintain habitat effectiveness for deer and elk
- Retain habitat for Mexican spotted owl
- Slash disposal must be consistent with fuels reduction and ecological restoration
- Ensure that road construction and access would be consistent with Forest Plan standards for road density
- Remove/obliterate roads after project implementation is complete
- Reintroduce fire to the landscape
- Demonstrate effectiveness of logging and thinning in protecting communities at risk and addressing forest health
- Clearly identify proposed treatment methods and techniques

- Meet Forest Service visual and scenic quality objectives of Partial Retention
- Eradicate known noxious weed populations and survey for additional weed infestations prior to any ground-disturbing treatment
- Evaluate cumulative effects of livestock grazing, timber harvest, logging, thinning, prescribed fires, and road developments
- Demonstrate cost-effectiveness of treatments
- Provide for a diversity of plant and animal communities
- Determine the structure and composition of the natural ecosystem and how it was historically maintained by fire processes

1.3.2 Development of Issues

Issues are defined as concerns about the potential effects of the Proposed Action. The range of issues was determined through public scoping as well as from project ID Team collaboration. Each potential issue was evaluated to determine its relevance to the decision, whether the issue could be eliminated from study because of minimal or no known or anticipated effects, and if the issue presented a substantial concern, whether it was to be a key issue considered during alternative development. Ultimately, all issues identified were classified as either "Selected for Detailed Analysis" or "Dismissed from Detailed Analysis."

Issues Selected for Detailed Analysis will be addressed in the subsequent Affected Environment and Environmental Consequences chapter (Chapter 3). Issues Dismissed from Detailed Analysis will not be addressed further in the EA.

1.3.3 Issues Selected for Detailed Analysis

The following issues provide the framework for the analysis in Chapter 3 of the EA. The following issues were selected for detailed analysis because 1) they are potential factors in deciding which alternative will be selected for implementation; 2) they are topics of public interest; or 3) a law, regulation, or policy requires their analysis such that full disclosure was determined to be appropriate. "Key issues" are those concerns or issues that were determined to be of such importance to the project that they were used in the formulation of alternatives.

- Air quality
- Fish and wildlife (including sensitive wildlife species and habitats)
- Hydrology (riparian, roads, and water features)
- Project economics
- Recreation and access
- Scenic resources
- Soils (erosion, compaction, and sedimentation)
- Vegetation and wetlands (including sensitive plant species, forest and range management, and noxious weed infestations) – Key Issue
- Wildland fire and hazardous fuels – Key Issue

1.3.4 Issues Dismissed from Detailed Analysis

The following issues, identified during agency and public scoping, are not carried forward into the analysis for the reasons described below:

- Cultural and Heritage Resources – A 2007 cultural resource field inventory identified one historic mine site in the analysis area. However, this site is not eligible for the National Register of Historic Places (USDA 2007b). The proposed project would not, therefore, have an adverse impact on eligible cultural resources. (Note: Although potential impacts to this resource are not formally analyzed, Design Criteria stipulating required protocols should any cultural or heritage resources be discovered during project implementation are included in Chapter 2.)
- Environmental Justice - Executive Order 12898 (EO 12898) – Environmental Justice requires all Federal agencies to consider low-income and minority populations in their analysis processes. Given that there are no low-income or minority populations as defined by EO 12898 within the analysis area, there would be no disproportionate adverse impacts on such communities. No further outreach or analysis has been completed for this proposal.
- Land Use – The proposed project is located entirely on NFS land and is surrounded by NFS land on the north, east, and south sides. There is one private inholding in the analysis area. Potential impacts to adjacent landowners are discussed, where relevant, in other resource analyses (e.g., air quality).

1.4 DECISION

1.4.1 Decision to Be Made

This EA is not the decision document for the project. The San Carlos District Ranger is the responsible official who will decide which, if any, management actions for this project will be implemented. The decision document will include all management requirements including design criteria and monitoring actions that will occur in association with the selected alternative. The decision of whether or not to implement the Proposed Action alternative will be documented in the Decision Notice.

The District Ranger will also determine whether an Environmental Impact Statement (EIS) is required based on the significance of environmental effects (40 Code of Federal Regulations [CFR] 1509.9) documented in the EA. If no significant effects are anticipated, a Finding of No Significant Impact (FONSI) will be issued by the District Ranger and the project will proceed with implementation.

1.4.2 Forest Plan Consistency

This EA is a project-level analysis that considers all applicable management direction provided in the 1984 *Land and Resource Management Plan for the Pike and San Isabel National Forests and Comanche and Cimarron National Grasslands* (Forest Plan) (USDA 1984). This EA tiers to the PSICC Forest Plan and is hereby incorporated by reference, as encouraged by 40 CFR 1520.20.

The Forest Plan provides long-term, programmatic Forest-wide goals and objectives (USDA 1984). The decision must be consistent with the Forest Plan or would require a Forest Plan amendment. Forest Plan goals are expressed in broad, general terms and are “timeless in that they have no specific date by which they are to be completed,” (USDA 1984). Relevant Forest Plan goals include:

- Increase diversity for wildlife and habitat improvement (III-4).
- Provide for productive use of range forage while maintaining or improving other resource values (III-4).
- Practice vegetation management to provide multiple benefits using a comprehensive timber management program as a tool (III-4).
- Provide for increased production and productive use of wood fiber while maintaining or improving other resource values (III-4).
- Improve age class and species distribution of tree stands forest-wide (III-4).
- Perpetuate the aspen type (III-4).
- Improve the health and vigor of all vegetation types (III-4).
- Protect riparian areas and wetlands from degradation (III-5).
- Provide for local community stability when allocating resource uses (III-5).
- Conserve water and soil resources and prevent significant or permanent impairment of land productivity (III-5).
- Encourage the use of volunteers in the National Forest Program to enhance Forest Service activities (III-5).
- Provide a cost-effective level of fire protection to minimize the combined costs of protection and damages, and prevent loss of human life (III-5).

The Forest-wide management requirements set the baseline conditions that must be maintained in order to implement the Forest Plan as it was intended. They establish the environmental quality and natural resource requirements that apply to all areas of the Forest(s). The Forest Plan provides long-term management direction for the analysis area.

1.4.3 Management Area Direction

The Forest Plan divides the PSICC into Management Areas (MA), each of which has an emphasis that identifies specific management objectives within the MA boundaries.

The Forest Plan designates specific standards and guidelines to be used in the management of these areas to better meet the MA’s emphasis (USDA 1984). There are four MAs in the analysis area (Map 4). The Forest Plan MA direction for these areas is excerpted below:

2A/Semiprimitive Motorized Recreation Opportunities

830 acres in the northwest portion of analysis area

Management emphasis is for semiprimitive motorized recreation opportunities such as snowmobiling, four-wheel driving, and motorcycling both on and off roads and trails. Motorized travel may be restricted or seasonally prohibited to designated routes to protect physical and biological resources.

Visual resources are managed so that management activities are not evident or remain visually subordinate. Landscape rehabilitation is used to restore landscapes to a desired visual quality. Enhancement aimed at increasing positive elements of the landscape to improve visual variety is also used.

The harvest method by forest cover type is clearcutting in aspen and lodgepole pine, and shelterwood for all other forest cover types.

Mineral and energy resources activities are generally compatible with goals of this management area subject to appropriate stipulations provided in Management Activities G00-G07 in Forest Direction.

5B/Big Game Winter Range

1,360 acres in the southwest portion of analysis area, with some 5B areas on eastern boundary

Management emphasis is on forage and cover on winter ranges. Winter habitat for deer, elk, bighorn sheep, and mountain goats is emphasized. Treatments to increase forage production or to create and maintain thermal and hiding cover for big game are applied. Tree stand treatments can be clearcut, shelterwood, single tree selection, or group selection. Commercial and noncommercial stand treatments occur. Specific cover-opening ratios and stand designs are maintained. Treatments to grass, forb, browse, and noncommercial tree species include seeding, planting, spraying, burning, falling, and mechanical chopping or crushing. A variety of browse age classes are maintained. Continuous forest cover is maintained on some sites.

Livestock grazing is compatible but is managed to favor wildlife habitat. Structural range improvements benefit wildlife.

Management activities are not evident, remain visually subordinate, or dominate in the foreground and middleground, but harmonize and blend with the natural setting.

New roads, other than short-term temporary roads, are located outside of the management area. Short-term roads are obliterated within one season after intended use. Existing local roads are closed and new motorized recreation use is managed to prevent unacceptable stress on big game animals during the primary big game use season.

The mineral and energy resources activities are compatible with goals of this management area, subject to appropriate stipulations, as outlined in the general Forest Direction.

7A/Wood-Fiber Production and Utilization

2,580 acres comprising the eastern half of the analysis area

Management emphasis is on wood-fiber production and utilization of large roundwood of a size and quality suitable for sawtimber. Medium diameter trees will be used for post and pole, pulp and custom wood use (furniture). Small diameter material will be used for firewood and pulp or biofuels. The harvest method by forest cover type is clearcutting in aspen, lodgepole pine, and Englemann spruce-subalpine fir, and shelterwood in interior ponderosa pine, pinyon/juniper, and mixed conifers.

The area generally will have a mosaic of fully stocked stands that follow natural patterns and avoid straight line and geometric shapes. Management activities are not evident or remain visually subordinate along Forest arterial and collector roads and primary trails. In other portions of the area, management activities may dominate in the foreground and middleground, but harmonize and blend with the natural setting.

Roaded-natural recreation opportunities are provided along Forest arterial and collector roads. Semiprimitive motorized recreation opportunities are provided on those local roads and trails that remain open; semiprimitive nonmotorized opportunities are provided on those that are closed.

The mineral and energy resources activities are compatible with goals of this management area, subject to appropriate stipulations, as outlined in the general Forest Direction.

9A/Riparian Management

Applicable Forest-wide to all areas within 100 feet of intermittent and perennial streams and within 100 feet of all water body shorelines

Emphasis is on the management of all the component ecosystems of riparian areas. These components include the aquatic ecosystems, the riparian ecosystem (characterized by distinct vegetation), and adjacent ecosystems that remain within approximately 100 feet, measured horizontally from both edges of all perennial streams and from the shores of lakes and other still water bodies. All of the components are managed together as a land unit comprising an integrated riparian area, not as separate components.

The goals of management are to provide healthy, self-perpetuating plant communities, meet water quality standards, provide habitats for viable populations of wildlife and fish, and provide stable stream channels and still water body shorelines. The aquatic ecosystem may contain fisheries habitat improvement and channel stabilizing facilities that harmonize with the visual setting and maintain or improve wildlife or fish habitat requirements. The linear nature of streamside riparian areas permits programming of management activities, which are not visually evident or are visually subordinate.

Forest riparian ecosystems are treated to improve wildlife and fish habitat diversity and specified silvicultural objectives. Both commercial and noncommercial vegetation treatments are used to achieve multi-resource benefits. Clearcutting is used to regenerate aspen clones. Other forest cover types are treated with either small-group or single-tree selection methods. Fish habitat improvement treatments are applied to lakes and streams to enhance habitats and increase fish populations.

Livestock grazing is at a level that will ensure maintenance of the vigor and regenerative capacity of the riparian plant communities. Vehicular travel is limited on roads and trails at times when the ecosystems would be unacceptably damaged. Developed recreation facility construction for overnight use is prohibited within the 100-year floodplain.

The management area over which this prescription is to be applied will also be affected by several management activities in the Forest-wide direction. Most notable is the direction involving upland zones, in the Water Resource Maintenance management activity, and elsewhere.

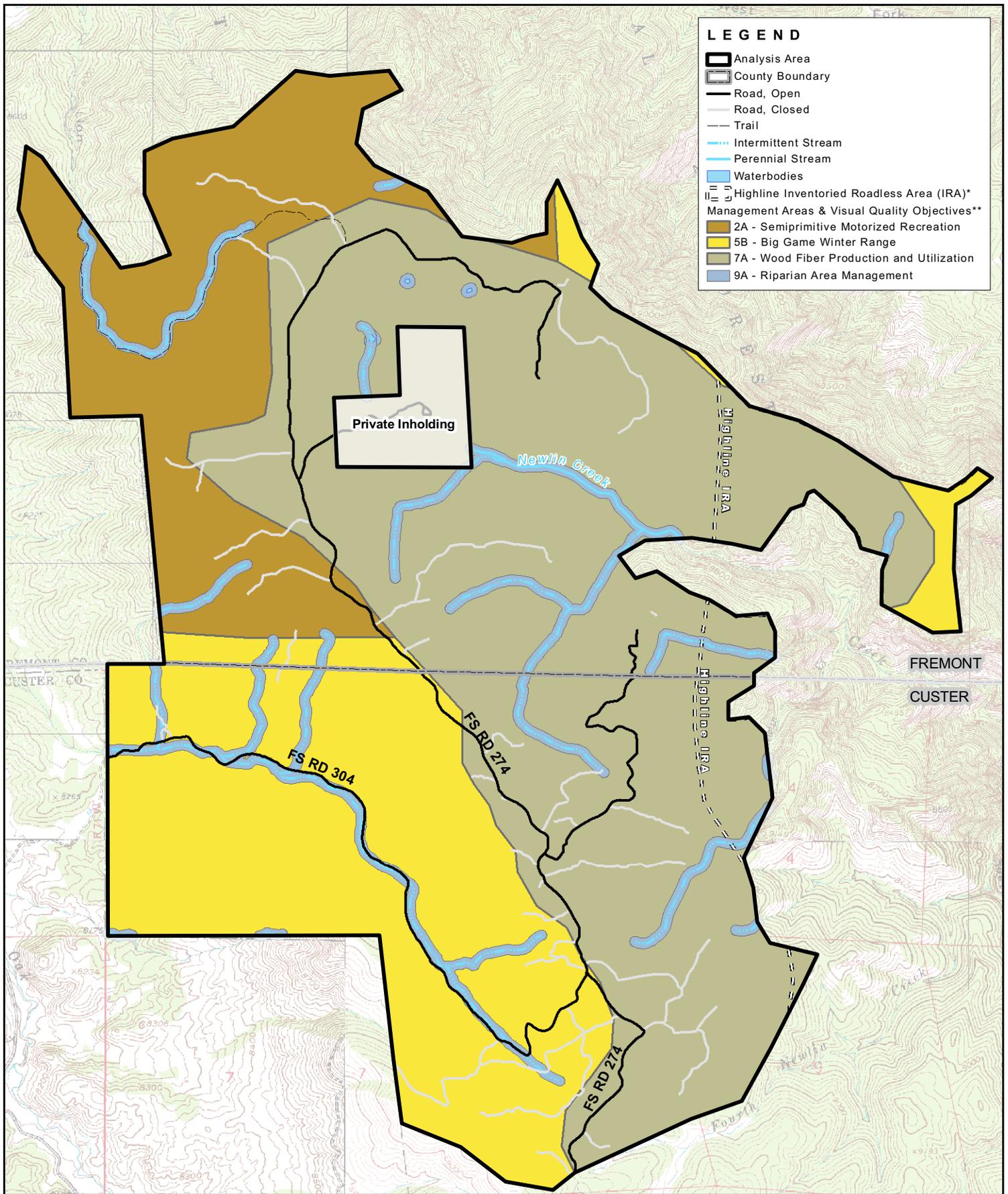
The mineral and energy resources activities are compatible with goals of this management area, subject to appropriate stipulations, as outlined in the general Forest Direction.

1.5 OTHER APPLICABLE LAWS, POLICIES, AND REFERENCES

1.5.1 Laws

The following acts (in chronological order) authorize and guide fire management activities for the protection of NFS lands and resources:

- Organic Administration Act of 1897 (16 United States Code [U.S.C.] 551).
- Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755), as amended.
- Fish and Wildlife Coordination Act (16 U.S.C. 661-667e; the Act of March 10, 1934; Ch. 55; 48 Stat. 401), as amended.
- Bankhead-Jones Farm Tenant Act of 1937 (7 U.S.C. 1010, 101 1).
- Multiple-Use Sustained-Yield Act of 1960 (Public Law [P.L.] 86–517), as amended.
- Archeological and Historic Preservation Act of 1960 (P.L. 86-523, 16 U.S.C. 469-469c-2), as amended.
- Wilderness Act of 1964 (P.L. 88-577, 16 U.S. C. 1131-1136).
- National Historic Preservation Act (NHPA) of 1966 (P.L. 89-665; 16 U.S.C. 470 et seq.).
- National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.).
- Clean Air Act of 1970 (42 U.S.C. 7401 et seq.), as amended.
- Federal Water Pollution Control Act (Clean Water Act) of 1972 (33 U.S.C. §1251 et seq.), as amended.
- Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended.
- National Forest Management Act (NFMA) of 1976 (16 U.S.C. 1600 et seq.).
- Executive Order 11990, Protection of Wetlands, May 24, 1977.
- Archaeological Resources Protection Act of 1979 (P.L. 96-95; 16 U.S.C. 470aa-mm), as amended.
- Executive Order 12875, Enhancing the Intergovernmental Partnership, October 26, 1983.
- Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601, 104 Stat. 3048).
- Executive Order 12898, Environmental Justice, February 11, 1994.
- Executive Order 13084, Consultation and Coordination with Indian Tribal Governments, May 14, 1998.
- Healthy Forests Restoration Act (HFRA) of 2003 (P.L. 108-148).



LEGEND

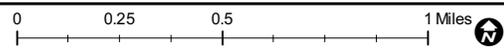
- Analysis Area
- County Boundary
- Road, Open
- Road, Closed
- Trail
- Intermittent Stream
- Perennial Stream
- Waterbodies
- Highline Invented Roadless Area (IRA)*

Management Areas & Visual Quality Objectives**

- 2A - Semiprimitive Motorized Recreation
- 5B - Big Game Winter Range
- 7A - Wood Fiber Production and Utilization
- 9A - Riparian Area Management

Private Inholding

FREMONT
CUSTER



MAP 4
MANAGEMENT AREAS

LOCKE MOUNTAIN FUELS MANAGEMENT EA
San Carlos Ranger District

*Portions of the Highline IRA are located in the analysis area east of the white dashed line.
**Visual quality objectives (VQO) are defined by Management Area (MA): MAs 2A, 7A, and 9A = Partial Retention and 5B = Modification.

Source Data: USFS Roads, NHD Streams and Waterbodies (24k), PSICC 1984 Forest Plan Management Area boundaries



November 12, 2008

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1.5.2 Tiering to Other Policies and References

All activities and strategies presented in this EA will comply with direction found in Forest Service Manuals 5101, 5103, 5106, and 5108, and overarching policy guidelines found in:

- Managing Impacts of Wildfires on Communities and the Environment – A Report to the President in Response to the Wildfires of 2000 (September 2000).
- Federal Wildland Fire Management Policy and Program Review (January 2001).
- Collaborative Approach for Reducing Wildland Fire Risk to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan (August 2001, May 2002).
- Thirtymile Hazard Abatement Plan (December 2001, March 2002).
- Cramer Accident Prevention Plan (January 2004).
- Protecting People and Sustaining Resources in Fire Adapted Ecosystems – A Cohesive Strategy (February 2006).
- Draft Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (September 2006).

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