

**U.S. Department of the Interior
Bureau of Land Management
Kremmling Field Office
P.O. Box 68
Kremmling, CO 80459**

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-120-2007-46-EA

PROJECT NAME: Fischer Draw Salvage Sale

LEGAL DESCRIPTION: T.10 N., R. 81 W., Sec. 24; T. 10N, R. 80 W., Secs. 19 & 30

APPLICANT: BLM, Kremmling Field Office

BACKGROUND: The BLM and Jackson County, Colorado have entered into a ten year cooperative Stewardship Agreement to treat pine beetle infestation in lodgepole forested areas within Jackson County. The agreement, signed on September 28, 2007, is the first of its kind between a local governing body and the Kremmling Field Office.

The objectives of the agreement are to implement a multi-year stewardship project for the cooperative management of natural resources within Jackson County to restore forest health, and accomplish community resource management objectives on or near forested lands managed by the BLM. Activities would improve preparedness for wildfire and protection of urban interfaces.

The basis for this agreement is authorized by Public law 108-07:

“The BLM may enter into stewardship contracting projects with private persons or other public or private entities to perform services to achieve land management goals for the national forests and the public lands that meet local and rural community needs.”

The agreement would provide the following benefits:

1. This agreement would encourage community involvement and benefit in management of Federal lands adjacent to rural communities.
2. Activities under this agreement would provide opportunities for community workforce development and training regarding long-term planning and project implementation through hazardous fuels reduction and restoration of forest health on lands within Jackson County.

PROPOSED ACTION: The BLM is proposing to conduct timber sale operations on approximately 135 acres of beetle-infested lodgepole pine timber stands. The project area would

be divided into 2 units (see project map below). The silvicultural prescription within the sale units would be to cut all lodgepole pine (*Pinus contorta*) and other conifer species, 7-inches in diameter and greater, to naturally regenerate the stands. Lodgepole pine and other conifer species 6-inches in diameter and less, as well as, Aspen (*Populus tremuloides*), would not be cut unless necessary to facilitate harvest or provide for operator safety. The project would be implemented through the stewardship contract with Jackson County.

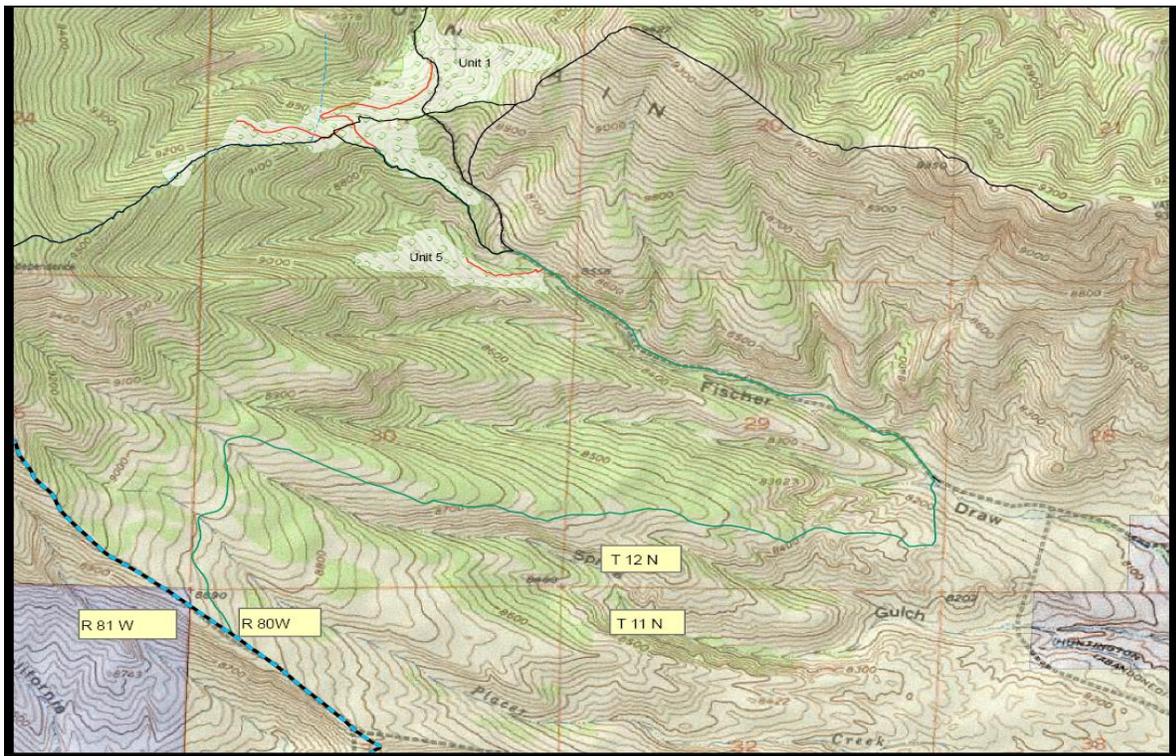
To facilitate the harvest, approximately 1¼ to 2 miles of temporary roads, not to exceed 15% grade and 12' in width, may be constructed, and would include proper runoff and diversions where appropriate. A temporary culvert would be installed crossing Fischer Draw to access Unit 5. After salvage operations are completed, the temporary roads would be reclaimed with scarification, outsloping, seeding, temporary culvert removal (unless removal would impact future land treatment), buck-n-rail fencing, and signage to discourage continued use. The temporary roads, or portions thereof, would also be slashed-in. In addition, approximately 4.9 miles of existing road would require blading, reshaping, and some clearing of roadside vegetation to accommodate log truck traffic. One or two culverts, or a hardened crossing or similar improvement, may need to be installed where the existing road crosses Fischer Draw. Other road improvements, such as: the spot placement of pit run, or the incorporation of other drainage features may be required.

Design Features of the Proposed Action:

- The resulting slash would be lopped and scattered to provide seed supply, or if needed, machine piled to further reduce the fuel loading. The piles would be burned during the winter when adequate snow depth is present.
- Locations of landing areas and skid trails would be determined by the BLM and contractor and comply with BLM contract stipulations and policy guidance.
- Harvesting operations would be limited to winter and after-the-thaw dry summer periods.
- A barbed wire fence separates the Fischer Draw and Independence Mountain grazing allotments, and fence avoidance stipulations would be included in the Sale Package Contract Stipulations. The sale purchaser would also be responsible for repairing or replacing any damaged portions of the grazing allotment fence between Fischer Draw and Independence Mountain (Allotments 07014 & 07015).
- All wetland and riparian vegetation would have a 100-foot buffer from disturbance, except where the temporary road accesses unit #5, to protect water quality.
- The temporary road to access Unit #5 is through a more upland segment of Fischer Draw. The proposed culvert should be sized and placed during the summer if a defined channel or waterline is observed. If there is no defined channel or waterline, then trying to install a culvert would potentially result in a large amount of surface disturbance or fill. The culvert and road location would then either move up or down the drainage to a more defined channel location or the need for a culvert would be re-assessed. Depending on the timing of the logging operations and the fuel projects (separate actions analyzed in a prior NEPA document), there is a potential for the temporary road to still be in place after

the fuel projects. Therefore, the culvert size should account for the total amount of treated acreage (both fuel and timber projects) that would drain to the culvert.

- Road construction would not occur during periods of wet or frozen soils, and all activity would cease during periods of wet soils to reduce soil erosion and compaction.
- Temporary roads would have adequate drainage to reduce soil erosion and to help reduce slope failures.
- Areas of steep slopes (>35%) would not be logged to help maintain stability.
- The old landslide in Unit #1 would not be logged or disturbed by road construction to help maintain stability.
- The BLM would inspect disturbed areas for noxious weeds for two growing seasons after the project is completed.
- The KFO staff archaeologist/paleontologist would monitor the Area of Potential Effect (APE) during and after the proposed timber harvest. If significant fossil resources are discovered during post treatment, they would be documented and protected from future ground disturbing projects. If the fossils cannot be protected, they would need to be mitigated by a BLM permitted and qualified paleontologist.



NO ACTION ALTERNATIVE: Timber sale operations would not be conducted. Increased tree mortality from the beetle infestation would continue to occur and regeneration of a new healthy

lodgepole pine stand would be impeded. In addition, the project area’s succession to a mixed conifer stand would be more probable, and the chance of a stand-replacing wildfire greater.

Alternatives Considered But Eliminated From Further Analysis: None

PURPOSE AND NEED FOR THE ACTION: The purpose of the Proposed Action would be to create a healthy forest environment by providing openings for the regeneration of lodgepole pine and stimulate quaking aspen trees to regenerate. The project would also help protect adjacent private property from possible wildfire activity.

The BLM needs to address the Mountain Pine Beetle (MPB) epidemic in order to lower beetle infestation levels, reduce the fire hazard, improve the health of the forested area, and sustain the resource for future generations.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Kremmling Resource Management Plan (RMP), Record of Decision (ROD)

Date Approved: December 19, 1984; Updated February 1999

Decision Number/Page: p. 10, 6.a.

Decision Language: To manage all productive forest land that is suitable for producing a variety of forest products on a sustained yield basis. This action will create a healthy forest environment through continued forest management practices.

Standards for Public Land Health: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. The following are the approved standards:

Standard	Definition/Statement
#1 Upland Soils	Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.
#2 Riparian Systems	Riparian systems associated with both running and standing water, function properly and have the ability to recover from major surface disturbances such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.
#3 Plant and Animal Communities	Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat’s potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.
#4 Threatened and Endangered Species	Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.
#5 Water Quality	The water quality of all water bodies, including ground water where applicable, located on or

	influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado. Water Quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under State law as found in (5 CCR 1002-8), as required by Section 303(c) of the Clean Water Act.
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Because a standard exists for these five categories, a finding must be made for each of them in the environmental analysis. These findings are located in specific elements below or in the Interdisciplinary Team Analysis Review Record and Checklist (IDT-RRC) (Appendix 1).

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

CRITICAL ELEMENTS: The following critical elements: Air Quality, Areas of Critical Environmental Concern, Cultural Resources, Environmental Justice, Farmlands- Prime and Unique, Native American Religious Concerns, Floodplains, Wastes, Hazardous or Solid, Wild and Scenic Rivers, and Wilderness were evaluated and determined that they were not present or that there would be no impact to them from the Proposed Action or No Action Alternative. See IDT-RRC in Appendix 1 for further information.

The following critical elements were determined to be potentially impacted and were carried forward for analysis from the IDT-RRC in Appendix 1.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: There are no known invasive, non-native species (weeds) within the project area. However, there are known weed populations in the larger Independence Mountain area, and weeds have been found in past clear cut areas on Independence Mountain.

Environmental Consequences: Any soil disturbing activity (e.g. salvage operations) increases the chance of weed establishment and spread. Since the BLM is proposing to create an additional two miles of temporary roads and conduct timber sale operations, there is a potential for weed establishment and spread. Attachment #1 includes stipulations on re-seeding of disturbed areas to minimize the chance of weed establishment and spread. The BLM has also proposed to monitor the area for two growing seasons as part of the Proposed Action.

MIGRATORY BIRDS

Affected Environment: The proposed project area supports a number of migratory bird species including red-tailed hawks, Clark's nutcrackers, gray jays, Steller's jays, Townsend's solitaires, ruby-crowned kinglets, hermit thrushes, pine siskins, and dark-eyed juncos. Goshawks have been observed in the vicinity; however, no nests were located in the project area. Few ground nesting birds inhabit the project area due to the lack of ground vegetation. The closed canopy existing in the project area has prevented grass, forb, and shrub establishment which would provide food and nesting cover for ground nesting species.

Environmental Consequences: Migratory birds inhabiting the proposed project area would likely be temporarily displaced from the area during timber harvest activities. Some nest trees could be removed by the proposed project, however, a sufficient number of trees in the Independence Mountain area would remain after harvest to provide nesting habitat for tree nesting birds. The proposed project could benefit some ground nesting species since the proposed project would open the forest canopy and allow grasses, forbs, and shrubs to establish. Additional food and cover for ground nesting species would be added to the treated areas by tree removal.

The No Action Alternative would not change the structure of the vegetation in the project area and would make the area more susceptible to fire since lodgepole pine trees would continue to die. This could result in a long-term change in the habitat which could adversely impact some tree nesting species since a fire would likely remove more trees than the proposed harvest project. With No Action, ground vegetation would decrease in the closed canopy forest habitat and could continue to preclude some migratory bird use of the proposed project area.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes a finding on Standard 4)

Affected Environment: A list of threatened, endangered, and candidate species which could inhabit the proposed project area was received from the U.S. Fish and Wildlife Service on September 18, 2007. Analysis of this list indicated that no listed species would be impacted by the proposed project.

Northern goshawks, a BLM designated Sensitive Species, are likely summer residents of the proposed project area. During the summer of 2007, surveys were conducted that resulted in finding one inactive nest in the proposed timber sale units and one adult goshawk observed adjacent to the project area. No active nest sites were located. The project area supports birds and mammals which would be preyed on by goshawks.

Environmental Consequences: Goshawks migrate from the area in fall and do not return until early summer. Harvest activities during the spring/summer would likely cause direct impacts by disrupting active nest sites and causing nest abandonment. Indirect impacts would include opening of the forest canopy which could improve habitat conditions for species utilized as prey by goshawks. In addition, the prey base for goshawks could increase as a result of the proposed timber salvage project.

Mitigation:

- If an active goshawk nest is located within the timber sale unit, a 1/8th mile buffer around the nest site would be needed.

Finding on the Public Land Health Standard for Threatened & Endangered species: Currently, the area is meeting land health standards. The No Action Alternative may or may not affect the standard depending upon the severity and extent of a potential wildfire. (Lodgepole pine fires are either extremely large and very severe or extremely small with minimal impact).

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The proposed timber units are all within the Upper North Platte River Basin, with most of the units located just south of Parsons Draw, an intermittent drainage that is tributary to Threemile Creek, a tributary of the North Platte River. All of unit 5 and small portion of Unit 1 drain to the south, as they would be within the Fischer Draw watershed area. Fischer Draw is also an intermittent drainage that flows to the south-southeast to the North Platte River. There are no water quality concerns for this segment of the North Platte River or its tributaries. Due to the intermittent nature, the tributaries have almost no water quality data. The BLM did sample some of the Fischer Draw seeps during a one-time inventory. No water quality concerns were identified. See the Water Quality report for more information (Attachment #2).

Environmental Consequences: The proposed timber units are within stands that have high levels of mortality. These dead trees stop evapotranspiring prior to needle loss and allow for less snow sublimation. Although the timber units could increase runoff in the localized drainages, some of the changes are probably already occurring due to this stand mortality. The use of best management practices (BMPs) would reduce possible impacts to water quality and

help avoid water quality impacts from wildfire. The BMPs were incorporated as part of design features of the Proposed Action.

Under the No Action Alternative, changes in runoff would also occur, but with increased chances of a wildfire that could impact the water quality.

The BLM has also proposed fuel treatments (CO-120-2007-19-CE) in the Fischer Draw drainage that would be additive to the impacts in Unit 5. The fuel treatments are much larger than the timber units and would control the impacts to Fischer Draw, especially as the fuel treatments have the potential to remove the understory.

Finding on the Public Land Health Standard for water quality: The proposed units are within areas that are meeting the standard for water quality. The timber sale, utilizing best management practices, would not hinder the area's ability to continue to meet the standard, and helps protect the area's water quality from possible wildfire impacts.

WETLANDS & RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The units are almost entirely in upland areas, with only one known spring that is in or adjacent to the northeast corner of Unit #5. The draws adjacent to the units, Parsons and Fischer, are both intermittent spring fed draws that support willow-sedge communities.

Environmental Consequences: There would be minimal direct impacts to any wetland area as the units are in the upland. A 100-foot vegetative buffer to all wetland vegetation would help prevent any indirect impacts from sedimentation reaching the adjacent wetlands.

Finding on the Public Land Health Standard for riparian systems: During various field inventories and interdisciplinary assessments, the draws were determined to be in proper functioning condition. Various range management actions have been taken to try and reduce livestock utilization along Fischer Draw. The Proposed Action would provide more short term forage for livestock in the upland areas away from the wetland vegetation. Under the No Action Alternative, there is an increased potential for wildfire and resulting sediment loads in the draws.

NON-CRITICAL ELEMENTS: The following non-critical elements were determined to be potentially impacted and were carried forward for analysis from the IDT-RRC in Appendix 1.

SOILS (includes a finding on Standard 1)

Affected Environment: Soil information is from the Jackson County Soil Survey and has not been field verified for these timber units. The units primarily consist of soils with a 1-2 inch duff layer, underlain by sandy loam textures. All of the mapped soils have coarser textures with gravels, cobbles, or stones increasing with depth. A summary of the major soils is included in the attached Water Quality report (Attachment #2). The soils have moderate to moderately rapid permeability and despite the moderate slopes, have medium runoff rates. The largest soil mapping unit is a Peeler sandy loam, 25-40% slopes, which has a severe hazard for water erosion (highly erodible). The soil is also rated as having severe equipment limitations. This appears to be due to slopes, as Peeler soils with lesser slopes are rated as having slight equipment limitations.

Environmental Consequences: The proposed timber operations and associated roads have the potential to impact soils, primarily in the headwaters of two intermittent drainages. The Proposed Action has design features to minimize potential erosion problems (i.e. operations would occur during periods of adequate snow cover or during dry soil conditions). Unit 1 has mostly all north to northeast facing slopes, increasing the snow loads and soil moisture concerns. Not only is there a higher potential for soil compaction, road drainage issues, but also slope stability. Approximately 15 acres of these units exceed 35% slopes, with Unit #1 having steep slopes within 50 ft. of the drainage. Unit #2 also contains an old slide area adjacent to the proposed road. As tree roots die, either from logging or beetle mortality, these slopes have the potential to be unstable. By leaving the trees to natural mortality, the understory and soils will be undisturbed and tree roots will be in place longer, all of which help contribute to stabilizing the slopes.

Under the No Action alternative, there is a potential that soil impacts from a wildfire have a much greater chance to be severe in extent and duration than the proposed timber salvage.

Finding on the Public Land Health Standard for upland soils: The soils are considered to be meeting the land health standard. The Proposed Action would have small areas of soil disturbance from road construction and logging, but with mitigation, the overall area would still continue to meet the standard.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The proposed project area provides coniferous habitat for a variety of birds and mammals. Rocky Mountain elk, mule deer, moose, and black bears are found in the project area during various times of the year. During the winter, elk use the area and it is identified as severe winter range and a winter concentration area by the Colorado Division of Wildlife. The proposed project falls within 8,200 acres of winter concentration and 42,000 acres of severe winter range. In addition, deer fawning and elk calving occur within the project area. Small mammals, including pine squirrels and pine marten, inhabit the area on a yearlong basis.

The project area lacks a sufficient vegetative understory to support a large number of large and small wild animals. The closed canopy, characteristic of the old-age lodgepole stands in the area, has blocked understory growth to the extent that vegetation is virtually non-existent and sparse in the areas proposed for timber harvest.

Environmental Consequences: Wildlife species using the project area would likely be temporarily displaced during timber harvest activities, especially during winter when animals are more concentrated and food is scarce. However, these animals would use adjacent undisturbed habitat and return to the project area following completion of harvest. Impacts to elk during winter and calving have been reduced by concentrating activities within 135 acres and by utilizing one main road in and out of the project area. The proposed project would benefit wildlife in the area by opening the closed forest canopy which would facilitate understory vegetation by allowing sunlight and moisture to reach the ground. A substantial increase in ground vegetation is anticipated after timber harvest, resulting in more cover and food for ground dwelling birds and mammals.

The No Action Alternative would not change the structure of the vegetation in the project area and would make the area more susceptible to a large-scale wildfire because lodgepole would continue to die. This could result in a long-term change in habitat on a large scale, which for the short term would be detrimental to most species dependent on lodgepole pine forest. With no action, ground vegetation would continue to decrease in the closed lodgepole canopy. Wildlife use of the area could decrease since less cover and food would be available.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Currently both areas are meeting land health standards. The No Action Alternative may or may not affect the standard depending upon the severity and extent of the wildfire (Lodgepole pine fires are either extremely large and very severe or extremely small with minimal impact).

VISUAL RESOURCES:

Affected environment: The Proposed Action is within a VRM Class II unit that includes Independence Mountain. Objectives for Class II management include: 1) Retaining the existing character of the landscape, 2) Level of change to the landscape should be low, 3) Management activities may be seen, but should not attract attention of the casual observer, and 4) Changes should repeat the basic elements found in predominant natural features of the landscape – form, line, color, & texture. The proposed timber sale is in close proximity to past clear cuts that are visible from state Hwy 125.

Environmental Consequences: Generally, the clear cut units are on north aspects. The key observation points (KOPs) are south and east of the proposed project. Most of the project would not be visible. A contrast rating form was completed analyzing the possible changes to visual resources as a result of the proposed project. The conclusion of the contrast rating was that there would be a low degree of contrast resulting from the proposed timber sale. The proposed roads would not be visible from the selected KOPs resulting in no change to the land form. The irregular nature of the clear cut units would repeat the existing patterns in the vegetation. Due to the relative small size of the project in relation to the overall landscape, the low visibility of a majority of the project, and that the project repeats the patterns in the vegetation layer, the impacts to visual resources would be low and would not attract the attention of the casual observer. There would be no direct impacts from the No Action Alternative. However, there is a potential for adverse indirect impacts to visual resources if a stand-replacing wildfire occurs in the project area.

RECREATION

Affected Environment: The Proposed Action is within Independence Mountain which is part of the Extensive Recreation Management Area (ERMA). Under the 1984 Resource Management Plan, ERMAs are managed to provide visitor information, minimal facility development and site maintenance, and public land access. Within Independence Mountain, several recreational activities take place including Off-Highway Vehicle (OHV) use, driving for pleasure, snowmobiling, hunting, camping, hiking, and wildlife watching. Currently there is a permitted big game outfitter who is authorized to set a base camp within a ½ mile of the proposed operations.

Environmental Consequences: Under the Proposed Action, operations would be limited to winter and after-the-thaw dry summer periods. Recreational activities that would be affected the greatest would be hunting, snowmobiling and OHV use. There is the potential for direct impacts to occur to hunters in the form of wildlife disturbance and displacement during the November hunting season if the ground is frozen and salvage operations are being conducted.

Mitigation:

- During hunting season, signage should be placed on the existing routes leading to the project area informing visitors when operations are occurring. Hunters could then choose to utilize other areas during salvage operations.

ACCESS/TRANSPORTATION

Affected Environment: Within the project area, there are several existing two-track roads. Under the Proposed Action, approximately two miles of temporary roads would be constructed.

Environmental Consequences/Mitigation: Under the Proposed Action, all timber roads would be built as temporary roads for access to the project area. The project area is currently within an area that receives moderate-to-heavy OHV use, with increased use during the combined hunting seasons. Route proliferation and resource damage from OHV's has been an ongoing issue throughout the year in the Independence Mountain area. Since the temporary roads would be reclaimed with scarification, seeding, signage, and buck-n-rail to prevent continued use, route proliferation resulting from the Proposed Action would be minimized.

Under the No Action Alternative, there would be no direct impacts to the transportation network. Travel would continue to occur on existing routes throughout the project area.

FOREST MANAGEMENT

Affected Environment: Timber stands within the proposed treatment units for the Fischer Draw Timber Sale are primarily comprised of mature and overmature, lodgepole pine. Minor amounts of other species, such as Engelmann spruce, subalpine fir and aspen, also exist within

the stands. Ground cover within the stands is non-existent to light, indicating the density of the canopy. Where it exists, ground cover is made up of scattered buffalo berry, common juniper, grouse whortleberry, grasses and forbs. Elevation of the proposed treatment units, range from approximately 8,500 to 9,600 feet. Over 50% of the cones are serotinous (i.e. cones that remain on the tree without opening for one or more years. Serotinous lodgepole pine cones open and seeds are shed when heat is provided by fires or hot and dry conditions.

Dense, mature and over-mature lodgepole pine stands that are over 80 years old and less than 9,500 feet in elevation have a moderate to high hazard condition rating for attack by mountain pine beetle. The lodgepole pine stands in the area, as in most of northwest Colorado, are currently experiencing a mountain pine beetle epidemic. Lodgepole pine stands proposed for treatment are experiencing severe infestation and mortality with approximately 85-95 % of the lodgepole pine trees greater than 7 inches dbh (i.e. diameter breast height) currently infested or dead. The mountain pine beetle introduces a blue stain fungus into the tree's living tissues. The blue stain fungus, in combination with the girdling of the tree by beetle galleries, interrupts the transport of water and nutrients, which eventually kills the tree. A combination of green trees (most are presently infested but there are a few that have not been successfully attacked), red-needled trees (recently dead) and older dead trees (with few or no needles), currently exist within the proposed treatment units.

Environmental Consequences: Under the Proposed Action, all lodgepole pine and other conifer species, 7 inches and greater dbh would be cut within the treatment units except for those areas excluded because of steep slopes. Within the proposed treatment units, the salvage harvest of dead, infested, and trees susceptible to mountain pine beetle attack would facilitate successful regeneration of the site by exposing bare mineral soil and allowing more sunlight to penetrate to the forest floor. Salvage harvest would also promote aspen suckering in areas where aspen currently exist. Current fire hazard of a potential crown fire would be reduced within the units as aerial fuels would be reduced. Surface fuel loading would increase in the short-term with the addition of slash but that increase would be mitigated by lopping and scattering the slash to a height of less than 24 inches. Winter snow loads on slash would further reduce slash depth. Concentrations of slash could be piled and burned to further reduce fuel loading. Increased, long-term fuel loading as a result of falling trees within the units would be avoided as a result of harvesting dead, infested and susceptible trees.

Under the No Action Alternative, and absent a period of prolonged and severe low temperatures (< 30 degrees F), preferably with low snow depths, the beetle epidemic is likely to continue. Currently, the proposed treatment units are in the red-needle stage, during which the potential for a ground fire to transition to a crown fire and move through the canopy, is greater than normal. This is primarily due to the lower moisture content of the red needles and small branches. Should a fire occur during this time, it would probably move through the crowns and seed in serotinous cones would be released, regenerating the site.

If a fire doesn't occur during this time period, mortality would continue. Needle cast, generally occurring 1-5 years after infestation, would occur, allowing more sunlight to reach the ground. Live understory trees would increase in growth and there would be an increase in ground vegetation. Limbs and cones would begin to fall off and some regeneration of the site may occur if cones fall on a favorable site and release seed. Lodgepole pine is a shade intolerant species and successful regeneration of the stand generally requires exposure of the site to sunlight and

sufficient exposed mineral soil. Where aspen exists, there would likely be an increase in aspen sprouting. Increased ground vegetation and duff layers may inhibit regeneration of lodgepole pine. If regeneration is severely inhibited, the site may change to more of a grass/forb type. Although there is little or no crown fire potential during this stage, surface fuel loading would increase and there would likely be a subsequent increase in surface fire intensity should an ignition occur.

As time passes, more of the seed source would be on the ground, seed viability would begin to be compromised, and dead trees would begin to fall. A published literature review indicates that trees killed by mountain pine beetle in previously unmanaged stands begin falling approximately 5 years after death and most dead trees are on the ground within 14 years (Lewis and Hartley, 2006). Fuel loading would increase dramatically with any regenerating seedlings and existing understory trees growing up through the fallen trees. Further regeneration of the site would likely be impeded by the loss of seed source and lack of favorable sites. A fire at this time would likely result in soil sterilization, total loss of any existing regeneration, and loss of any remaining seed source.

CUMULATIVE IMPACTS SUMMARY: For the purpose of this EA, the general geographic boundary for cumulative impact analysis is the Independence Mountain area. In looking at past actions within the geographic area over the past ten years, there have not been any major changes to the Independence Mountain area.

In looking at reasonably foreseeable actions (i.e. next 10 years), the BLM has approved a categorical exclusion (CO-120-CX-19-CX) for fuels treatments on approximately 4,120 acres within the geographic area. Approximately, 3000 acres would be treated with prescribed burning and 1,000 acres would be treated using mechanical or hand thinning. The BLM is also in the preliminary stages of additional salvage planning in the geographic area.

There is a potential that these activities when added together, could have a short term cumulative impact on the vegetation and soils within the Independence Mountain area due to the amount of disturbance and vegetation removal resulting from the Proposed Action and future actions. However, these actions would have long-term beneficial impacts to wildlife and vegetation by removing the beetle susceptible trees and infested trees within the area and thus stimulating the natural regeneration processes.

PERSONS / AGENCIES CONSULTED: Colorado Division of Wildlife (CDOW) and Jackson County. The CDOW submitted a letter, dated November 27, 2007, that recommended closing and obliterating any temporary roads created for the salvage operations. They also included recommendations regarding the timing of salvage operations to mitigate impacts to elk. The BLM considered their comments in the analysis.

INTERDISCIPLINARY REVIEW: See IDT-RRC in Appendix 1.

FONSI

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Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the Proposed Action will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

DECISION RECORD

DECISION: It is my decision to authorize the Proposed Action as described in the attached EA. This decision is contingent on meeting all mitigation measures and monitoring requirements listed below.

RATIONALE: The decision was made to actively addressing the Mountain Pine Beetle (MPB) infestations occurring on BLM-administered public lands, and to help protect adjacent private property from a possible stand replacing wildfire. The Proposed Action will lower beetle infestation levels, reduce the fire hazard, and improve the health of the forested area.

MITIGATION MEASURES:

Threatened, Endangered, and Sensitive Species:

- If an active goshawk nest is located by the BLM wildlife biologist within the timber sale unit, a 1/8th mile buffer around the nest site will be needed.

Recreation:

- During hunting season, signage must be placed on the existing routes leading to the project area informing visitors when operations are occurring.

COMPLIANCE/MONITORING: See Proposed Action.

NAME OF PREPARER: Ken Belcher

NAME OF ENVIRONMENTAL COORDINATOR: Joe Stout

DATE: 7/25/08

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ David Stout

DATE SIGNED: 8/25/08

ATTACHMENTS:

- 1). Special Provisions
- 2.) Water Quality Report

APPENDICES:

Appendix 1 – Interdisciplinary Team Analysis Review Record and Checklist

Attachment #1

SECTION 41
SPECIAL PROVISIONS

Fischer Draw Timber Sale Stewardship Project
Contract No. CO120-TSxx-y

Section 41, Special Provisions A - R: The Purchaser shall comply with the Special Provisions which are attached hereto and made a part hereof unless otherwise authorized in writing by the Contracting Officer:

A. Logging Plan:

Prior to the commencement of logging operations, the Purchaser shall obtain approval from the Contracting Officer of a written logging plan commensurate with the terms and conditions of the contract. All logging shall be done in accordance with the plan. Any modification of the plan shall be approved in advance of implementation by the Contracting Officer. A pre-work conference between the Purchaser's authorized representative and the Contracting Officer's representative must be held before the logging plan will be approved.

B. Work Notices:

Before beginning operations on the contract area for the first time, or after an extended delay, the Purchaser shall notify the Contracting Officer one week prior to the date he plans to begin operations. The Purchaser shall also notify the Contracting Officer one week in advance if he intends to cease operations for a period of seven days or more.

C. Harvest Operations:

Harvest operations, including temporary road right-of-way operations, may be limited or suspended between December 1 of one calendar year and June 1 of the following calendar year, both days inclusive.

Yarding will not be permitted in the "Reserve Area" shown on Exhibit A.

Skidding of logs is not permitted on gravel surface roadways.

During periods of adverse weather conditions due to factors such as thawing, heavy rain or snow, all activities that may create excessive rutting (dependent on soil type, vegetation, and slope) will be suspended. When these conditions exist the Purchaser will contact the Contracting Officer for an evaluation and decision.

Skid trails will be water barred as directed by the Contracting Officer's representative and covered with slash to a minimum of twelve (12) inches and a maximum of twenty-four (24) inches in depth when the skid trail is no longer necessary for harvest operations. All lodgepole pine trees seven (7) inches DBH or greater shall be felled, unless otherwise reserved. All live lodgepole pine trees six (6) inches or less in DBH that are heavily infected with dwarf mistletoe shall be felled and limbed.

All aspen, Engelmann spruce, Douglas-fir, and subalpine fir are reserved and shall not be cut.

The Purchaser shall prevent excessive damage to all mature live and dead trees not designated for cutting and all healthy lodgepole pine regeneration during harvesting and slash treatment operations.

All trees shall be cut so that the resulting stumps shall not be higher than twelve (12) inches, measured from the ground on the uphill side of the tree.

The Purchaser shall remove all limbs up to a four (4) inch top from merchantable trees prior to skidding logs.

In addition to the requirement set forth in Sec. 25 of this contract, the Purchaser shall steam clean or pressure wash all logging and road building equipment, except logging trucks, prior to initial move-in, to minimize the likelihood of spreading or introducing noxious weeds to the Contract Area. Any logging or road building equipment removed from the Contract Area during the duration of the Contract must be steam cleaned or pressure washed before it is returned to the Contract Area.

D. Improvements:

No improvements such as permanent camps, sawmills, or living quarters will be constructed or erected on the contract area. The Purchaser or his employees, upon written authorization from the Contracting Officer, may establish a temporary work camp. The camp may consist of mobile trailers, pickup campers, tent trailers or tents. In addition to the requirements of Section 26, the Purchaser will be required to: 1) provide adequate sanitary facilities; 2) provide metal garbage collection cans with lids; 3) keep the camp in a clean and orderly condition and; 4) rehabilitate the area to the satisfaction of the Contracting Officer.

E. Access and Maintenance of Roads:

The Purchaser is authorized to use the roads shown on Exhibit A which are under the jurisdiction of the Bureau of Land Management. Purchaser shall provide the BLM with written proof of access, as well as all relevant permits and permissions, for any roads to be used that are not under BLM's jurisdiction.

The Purchaser shall at all times during the period of his operations on the contract area and upon completion of said operation, be liable for maintenance and repair of such roads resulting from wear or damage in accordance with this contract. With the prior written approval of the Contracting Officer, the Purchaser may arrange for cooperative maintenance with other users of the access roads. Provided, however, that such cooperative arrangement shall not relieve the Purchaser of his liability for the maintenance and repair of such roads resulting from wear or damage in accordance with this contract.

The Purchaser shall perform road repair and maintenance work on all roads used by him under the terms of this contract as follows:

- a. The Purchaser shall maintain the roads used in the logging operations to the standards required by this contract by blading and shaping the road surface, ditches and shoulders. All ruts, rills and holes shall be smoothed and refilled with suitable material and machine compacted by routing equipment over the fill area. All ditches shall be shaped to the configuration typical to the roadway and shall be kept clean of obstructions that may impede the flow of water. Ditches leading to drainage structures shall be kept clean to the invert elevation of the structure.
- b. The Purchaser shall perform all road cleanup, including removal of bank slough, slides, and fallen timber, which can be practically accomplished by a motor patrol grader and by the use of hand tools. Subject to such limitation, he shall also replace material eroded from fill slopes and clean out drainage ditches and culverts.

In removing material from slides or other sources, the Purchaser shall deposit the material which must be moved at locations chosen with the objective that such material will not erode into streams, lakes, or reservoirs, or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion.

- c. The Purchaser shall perform preventive maintenance at end of the Purchaser's hauling each season and during non-hauling periods which occur between operations on the contract area to minimize weather damage to roads during the non-hauling period. This may include, but shall not be limited to, slide repairs, water barring, blading to remove ruts or other surface irregularities which would interfere with normal runoff of water, and cleaning of ditches and culverts.
- d. The Purchaser shall avoid fouling gravel surfaces through covering with earth and debris from side ditches, slides, or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway.
- e. The Purchaser shall "reopen" those dirt roads which have been closed by "tank traps" and "reclose" those roads when the road is no longer needed for harvest operations.

The Purchaser shall comply with and not exceed the gross weight, length, and height limits specified by local, county, and state laws and regulations.

F. Spur Road Construction:

The Purchaser shall construct the permanent and temporary spur road(s) in strict accordance with the specifications of Exhibit C - Timber Sale Road Specifications, which is attached hereto and made a part hereof. Construction in the logging unit shall be completed and approved prior to the removal of any timber from that unit, except for that timber which is necessary for the construction of the road.

G. Penalty for Damage:

If in connection with the felling, skidding, or hauling operations under this contract, the Purchaser, his contractors or subcontractors, or employees of any of them damage any government timber other than the timber sold under this contract, the Contracting Officer may require the Purchaser to cut, remove, and pay twice the appraised value of the timber damaged in lieu of the provision of Section 13. The board foot volume and the value of merchantable timber shall be determined by the Contracting Officer in accordance with the standard appraisal techniques of the Bureau of Land Management. Payment for such cutting shall be made in advance of removal. Damage to young trees not scaleable in terms of board feet, where it would be difficult, if not impossible, to determine the amount of such damage, the Purchaser shall pay as fixed, agreed and liquidated damages, \$1.00 for each reserve tree damaged or destroyed.

H. Log Export Restrictions:

All timber sold to the Purchaser under the terms of this contract is restricted from export from the United States in the form of unprocessed timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as sawlogs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8-3/4) inches in thickness; or (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end product uses. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8-3/4) inches in thickness or less.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a "Certificate as to the Non-Substitution and the Domestic Processing of Timber." The original of such certification shall be filed with the Contracting Officer.

Prior to the termination of this contract, the Purchaser shall submit to the Contracting Officer a "Log Scale and Disposition of Timber Removed" which shall be executed by the Purchaser. In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfers of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

If required in writing by the Contracting Officer, the Purchaser shall, prior to the removal of timber from the contract area, brand with the Purchaser's registered log brand at least one end of each log, bolt, or other roundwood, and identify each of these by painting with highway yellow paint.

In the event of the Purchaser's non-compliance with this subsection of the contract, the Contracting Officer may take appropriate action as set forth in Section 10 of this contract.

In addition, the Purchaser may be declared ineligible to receive future awards of government timber for a period of one year.

I. Cultural Resource Protection:

1. The Purchaser is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for disturbing historic or archaeological sites, or for collecting artifacts.

2. The Purchaser shall immediately bring to the attention of the Authorized Officer any and all antiquities, or other objects of historic, paleontological, or scientific interest including but not limited to, historic or prehistoric ruins or artifacts DISCOVERED as a result of operations under this authorization (16 U.S.C. 470.-3, 36 CFR 800.112). The Purchaser shall immediately suspend all activities in the area of the object and shall leave such discoveries intact until written approval to proceed is obtained from the Authorized Officer. Approval to proceed will be based upon evaluation of the object(s). Evaluation shall be by a qualified professional selected by the Authorized Officer from a Federal agency insofar as practicable (BLM Manual 8142.06E). When not practicable, the Purchaser shall bear the cost of the services of a non-Federal professional.

Within five working days the Authorized Officer will inform the Purchaser as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the Purchaser will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
- A timeframe for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.

If the Purchaser wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the Purchaser will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the Purchaser will then be allowed to resume construction.

Antiquities, historic, prehistoric ruins, paleontological or objects of scientific interest that are outside of the authorization boundaries but directly associated with the impacted resource will also be included in this evaluation and/or mitigation.

Antiquities, historic, prehistoric ruins, paleontological or objects of scientific interest, identified or unidentified, that are outside of the authorization and not associated with the resource within the authorization will also be protected. Impacts that occur to such resources, which are related to the authorizations activities, will be mitigated at the Purchaser's cost.

3. Pursuant to 43 CFR 10.4(g), the Purchaser of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

J. Wildlife Resource Protection:

All or parts of logging operations may be limited or suspended by the Contracting Officer for specified periods of time if logging would unduly cause a disturbance to wildlife. Wildlife disturbance includes, but is not limited to, interference of normal critical big game wintering areas, calving or fawning areas, and active raptor nesting areas.

Unmerchantable dead standing and merchantable trees with evidence of cavity nesting or roosting use will remain standing unless the tree is determined to be a hazard to logging operations.

The Purchaser shall immediately discontinue construction or timber harvesting operations upon written notice from the Contracting Officer that sensitive, threatened, or endangered plants or animals protected under the Endangered Species Act of 1973 have been discovered to be present on the area. Discontinued operations may be resumed upon receipt of written instructions

K. Protection of Streams, Springs, Parks and Meadows:

In addition to the requirements of Section 25 of this contract, the Purchaser shall:

1. Not operate logging equipment in live streams, except at crossings designated by the Contracting Officer or as essential for the installation of culverts.
2. Inform the Contracting Officer of the existence of any undeveloped surface spring he may discover on the contract area and take any precautions directed by the Contracting Officer to protect the spring from damage resulting from the logging operations.
3. Not fell trees into, or deck logs on, or travel across, existing springs, parks, or meadows, except in areas approved by the Contracting Officer.
4. Not locate landings or log decks within one hundred (100) feet of any spring.

L. Fire Precautions:

During periods of extreme fire danger, the Contracting Officer may issue in writing a restricting or closure order to the Purchaser.

In the event a fire should occur within the contract area, the Purchaser and his employees will immediately take the necessary action to contain and suppress the fire. This will in

no way relieve the Purchaser from any responsibility regarding the suppression or trespass cost, in the event the fire investigation reveals the fire was started by the Purchaser or his employees, either through negligence or from the logging operations.

The following equipment will be provided and maintained by the Purchaser on the contract area for use during periods of fire danger from June 1 to November 1 each year, both days inclusive:

1. Each truck, tractor, skidder, and loader used on the contract area shall be equipped with an axe and shovel and with a usable chemical fire extinguisher effective against oil and gas fires.
2. Each felling crew or each buckler using a power saw in the contract area shall have a shovel readily available.
3. Each chain saw, tractor and skidder shall be equipped with an operable spark arrester.

M. Slash Treatment:

The term "slash" means all debris resulting from logging operations. Slash in this provision is considered to be all woody vegetative material (including cull logs, chunks, tops, limbs, branches, snags, damaged or destroyed reproduction, saplings, poles, and stumps) that is created or disturbed by any type of vegetative cutting, clearing, construction, or silvicultural treatment.

Slash will be treated by the lop and scatter method as described below. Some areas may be machine treated to further reduce the fuels, if needed.

Lop and scatter treatment of slash will be done as follows:

- a. The top and side branches of all trees cut or knocked down will be completely trimmed to a four (4) inch top diameter.
- b. Limbs and tops will be scattered and all slash will not exceed twenty-four (24) inches in height from ground level.

Machine treatment of slash shall consist of piling or walking down.

a. Piling:

1. Trees will be limbed and topped prior to skidding. The resulting slash will be pushed into piles using an approved brush piling rake ("Fleco" or equivalent).
2. Slash piles shall not be more than thirty (30) feet in length, thirty (30) feet in width, and no more than fifteen (15) feet in height, unless otherwise authorized by the Contracting Officer. The minimum distance between piles shall be 150 feet.
3. Slash piles shall be located so that burning operations will cause only minimal damage to standing live trees. Accordingly, piles will not be constructed within fifty (50) feet along the exterior edges of the logging units or near groups of small diameter trees reserved from cutting within the logging units.
4. To facilitate burning, slash piles should be tightly compacted, be mostly

free of dirt, and large stems off the ground should not extend outward more than ten (10) feet beyond the base of the pile.

5. Burning or other treatment of piled slash shall be done by the Government.

b. Walking Down:

The crawler tractor or skidder shall be operated such that all existing slash is walked down. Walking down shall crush or break tops, branches, and stems such that the slash does not exceed the maximum height of twenty-four (24) inches.

N. Injuries and Damage:

In addition to the requirements of Section 12 of this contract, the Purchaser, in his operations under this contract, shall not do or omit to do anything by which act or omission any person or property may be injured or damaged and shall indemnify and save the United States harmless from any claim, demand, action, or damages on account of any personal injury or property damage arising by reason of anything done or omitted to be done by the Purchaser, his contractors, subcontractors, or the employees of any of them.

O. Cattleguards, Gates, and Fencing:

The Purchaser shall make every reasonable effort to protect and maintain all gates and cattleguards. Any gate or cattleguard that is damaged by the Purchaser or his employees shall be repaired immediately.

If an existing fence, as shown at the approximate location on Exhibit A, is damaged by the Purchaser or his employees, it shall be immediately repaired when there are livestock present on either side of the fence or within thirty (30) days after the fence is damaged when livestock are not present.

P. Bearing Trees

Notwithstanding the provisions of Sec. 22, all bearing trees located within a cutting unit or road ROW, as shown on Exhibit A, shall be cut on a 30 degree bevel, the lowest part not less than eighteen inches above the scribe marks and in such a manner that will not mutilate the markings identifying the bearing trees.

The Purchaser shall treat all such bearing tree stumps in the following manner:

1. Remove all bark, providing there are no identifying marks on the bark.
2. Place a sheet of galvanized metal over the top of each stump, bend down the edges, and nail to the side of the stump.
3. A 6-foot long steel fence post shall be driven alongside the corner monument.

Q. Periodic Payment and First Installment Adjustment

1. Notwithstanding the provisions of Sec. 3(b), the amount of the first installment may be reduced by the Government when the Contracting Officer requests the Purchaser to interrupt or delay operations for a period expected to last more than thirty (30) days during the operating season. Such interruption or delay must be beyond the Purchaser's control. Operating Season shall be defined, for this purpose, as the time of year in which operations of the type required are normally conducted and not specifically restricted under the contract. The first installment may be reduced to five (5) percent of the installment amount listed in Sec. 3(b), during the delay period. The Purchaser must request such a reduction in writing. When the Contracting Officer notifies the Purchaser that operations may proceed, the Purchaser shall have fifteen (15) days after such notification to return the first installment to the full value specified in Sec. 3(b). Failure to return the first installment to the full value within the allotted time will be considered a material breach of contract. No timber shall be cut or removed from the contract area until the first installment is restored to the full amount.

2. Notwithstanding the provisions of Sec. 3(b), adjustments in the due dates for periodic payments may be made by the Government if the Contracting Officer interrupts or delays contract operations for a period expected to last at least thirty (30) days, and the interruption or delay is beyond the Purchaser's control. Any adjustment made shall provide the Purchaser with an equal amount of operating time as would have been available without the delay. The Purchaser shall request such adjustment in writing before the due date for a periodic payment contained in Sec. 3(b).

R. Exhibits

The following Exhibits are attached hereto and made a part hereof:

- Exhibit A: Contract Map
- Exhibit B: Lump Sum Sale
- Exhibit C: Timber Sale Road Specifications

Attachment #2:

Fischer Draw Timber Sale Water Quality (CO-120-2007-46-EA)

NEPA Compliance Record Rationale

Preparation of the Fischer Draw Timber Sale Environmental Assessment required an assessment of compliance with the Clean Water Act and the Colorado Land Health Standard #5. The Decision Record will permit logging of 5 timber units within the Independence Mountain area, which is located in the Upper North Platte River Basin. A review of Colorado's Nonpoint Source Assessment Report (plus updates), the 305(b) Report, the 303(d) List, the Monitoring and Evaluation List, and BLM field data was done to determine if water quality concerns exist. Proposed timber units 1, 2, 3, and a few acres of unit 4 are within the "North Platte River below 3 Way" 5th Order watershed. The units are located in the upper portion of the Parsons Draw drainage, which is an intermittent drainage tributary to Threemile Creek, a tributary of the North Platte River. Unit #5 and a few acres of Unit #4 are within the "North Platte River above 3 Way" 5th Order watershed. These units are within the Fischer Draw drainage, which is also an intermittent drainage fed by seeps and springs. Fischer Draw travels south-southeast to the North Platte River.

Summary:

The 1998 Unified Watershed Assessment lists the Upper North Platte as a Category 4 watershed, which is a "watershed with insufficient data to make an assessment". Neither the 303(d) list or the Monitoring and Evaluation list identify any water quality concerns for this segment of the North Platte or the smaller tributaries within the project area. Due to the intermittent nature of the drainages, the BLM does not routinely sample water quality on the draws. A general water quality inventory was done on the springs back in the 1980s, and water quality was acceptable for agricultural uses with no obvious impairment.

In field reviews of the area, the proposed timber units are within areas meeting the Land Health Standards for upland soil health, riparian health, and water quality. The proposed units are primarily uplands, with only one inventoried spring in or adjacent to a unit boundary (Unit 5). The mean slope of the project area is 27%, although there are limited areas as steep as 65%. Due to the percentage of the timber stands that have pine beetle infestation, the hydrology of the area has probably already started to change. As the lodgepole trees die, evapotranspiration ceases even prior to needle loss. The amount of snow held in the branches also declines, reducing the amount of snow that is sublimated. Clear cuts tend to package snow, and if enough of a watershed is cut, increased runoff can occur, and tends to occur slightly sooner than forested stands. With natural regeneration, these increases diminish over time as the stand matures.

In the Parson's Draw, the 127.2 acres are primarily north aspects, and comprise about 22% of the upper drainage on public lands. North of the timber units are private lands, with a summer home less than a half mile from the boundary. The vast majority of the drainage is on private land, and it is very unlikely that the hydrologic changes from either harvesting or timber mortality on BLM would be measurable the three miles or so downstream where the draw joins Threemile Creek.

In Fischer Draw, the 52.5 acres of timber units represent less than 2% of the Upper Fischer Draw watershed on public lands. There would be no measurable affect 1.8 miles downstream where the draw leaves the block of BLM land. There are planned fuel treatments within the same portion of the watershed, however, that are scheduled for 2008-2010 to remove the aspen and lodgepole overstory. The goal of the treatments is for 40-60% removal, and the actual results will determine the amount of hydrologic changes in Fischer Draw. If Unit #5's timber road is still in place by 2010, then the culvert must be sized for the increased runoff from the upstream timber stand replacement treatment and the two timber units.

The proposed timber sale would remove mostly dead or soon to be dead timber. Although there could be some localized increases in runoff, these would be likely to occur regardless due to high amount of beetle kill in the stands. Impacts from the logging practices (skidding, decking) and roads would be minimal by using best management practices. Minimum buffers of 100 feet from wetland or riparian vegetation will be required, and no road construction during periods of wet or frozen soils. Logging and hauling will only

occur during periods of sufficient snow cover or dry conditions to reduce soil erosion and compaction. Temporary road reclamation will include soil scarification, seeding, and either signage or a barrier to prevent use. The proposed roads will have adequate drainage to keep runoff off the road surface and to minimize slumps. In Unit 2, live trees on the old slide should be left to maintain the site's stability above the road.

Under the No Action Alternative, some of the hydrologic changes would occur due to the lodgepole mortality. There would not be the soil disturbances from logging activity, but regeneration could be slower. If wildfire occurred, the amount of soil loss, possible water quality impacts and duration of impacts could be significant, depending on the fire intensity, size, location, and precipitation events.

Discussion:

Unit 1: Unit 1 is located near the very headwaters of Parsons Draw. The unit has approximately 4.8 acres that exceed 35% slope. The Natural Resource Conservation Service (NRCS) maps the area as primarily Peeler sandy loams, 25-40% slopes. The sandy loam surface is underlain by gravelly sandy loams and coarse sandy loams. Gravels generally make up between 10-35% of the soil throughout the profile. Permeability is moderate, and runoff is medium. The hazard of water erosion is moderate. The soil is rated as having severe limitations for roads due to slopes.

Unit 2: Unit 2 has the greatest percent of steep slopes (18% of the unit). It has approximately 6.1 acres of slopes greater than 35%, and the proposed road crosses the toe of an old landslide. The landslide occurred many years ago, as the current mature trees growing in the slide have straight trunks. It is still recommended that live trees remain on the slide (leave trees) to maintain that stability. If trees are harvested, the toe of the slide would have the highest priority to have leave trees. Due to the north aspect of the unit, snowdrifts and excessive moisture raise the potential of future slumps. In building the road, adequate drainage will be important to reduce road maintenance, especially since to keep a low grade, the route travels across the slope (increased slump potential). The existing road travels more straight down the slope, with too steep of grade for log trucks.

The unit's mapped boundary is within 50 feet of the draw, and the closest segment has some of the steepest slopes. Due to the slopes alone, timber removal may not occur along that portion of the unit, but an adequate vegetative buffer should be maintained to prevent sediment loading to the drainage. The soils are also mapped as primarily Peeler sandy loams, 25-40% slopes.

Unit 3: Unit 3 has approximately 3.6 acres where slopes exceed 35%. The unit's western portion has gentle slopes as it nears the draw, reducing the likelihood of sediment transport into the drainage. A portion of the new permanent road is in this unit, with the unit having a western aspect. The soils are mapped as Peeler sandy loams, with the northern and eastern "extensions" being mapped as MacFarlane-Rock outcrops. This association is generally 60% MacFarlane extremely stony loams, with slopes of 25-60%. The extremely stony loam surface has about 40% stones and with depth, the stones increase to 65% of the volume, with diameters from 10-24 inches. Permeability is moderately rapid, runoff is slow, and the hazard of water erosion is moderate. Rock outcrops generally make up 20% of the association, and tends to be on steeper areas and drainage divides.

Unit 4: Unit 4 is almost entirely within the Fischer Draw drainage. The unit has a southeastern aspect and only scattered areas where slopes exceed 35%. A short portion the temporary road would be constructed to connect the proposed haul road (in Units 2 & 3) with an existing road. Soils are primarily Troutville-Newcomb association. Troutville-Newcomb association. These soils formed in moderately coarse to coarse textured glacial till. The association tends to be 60% Troutville sandy loams which have 15% gravel in the surface layers, but with depth, are very gravelly sandy loams with 40-50% gravel and stones. The Newcomb soils tend to be 40% of the association, and tend to have short steep slopes, while

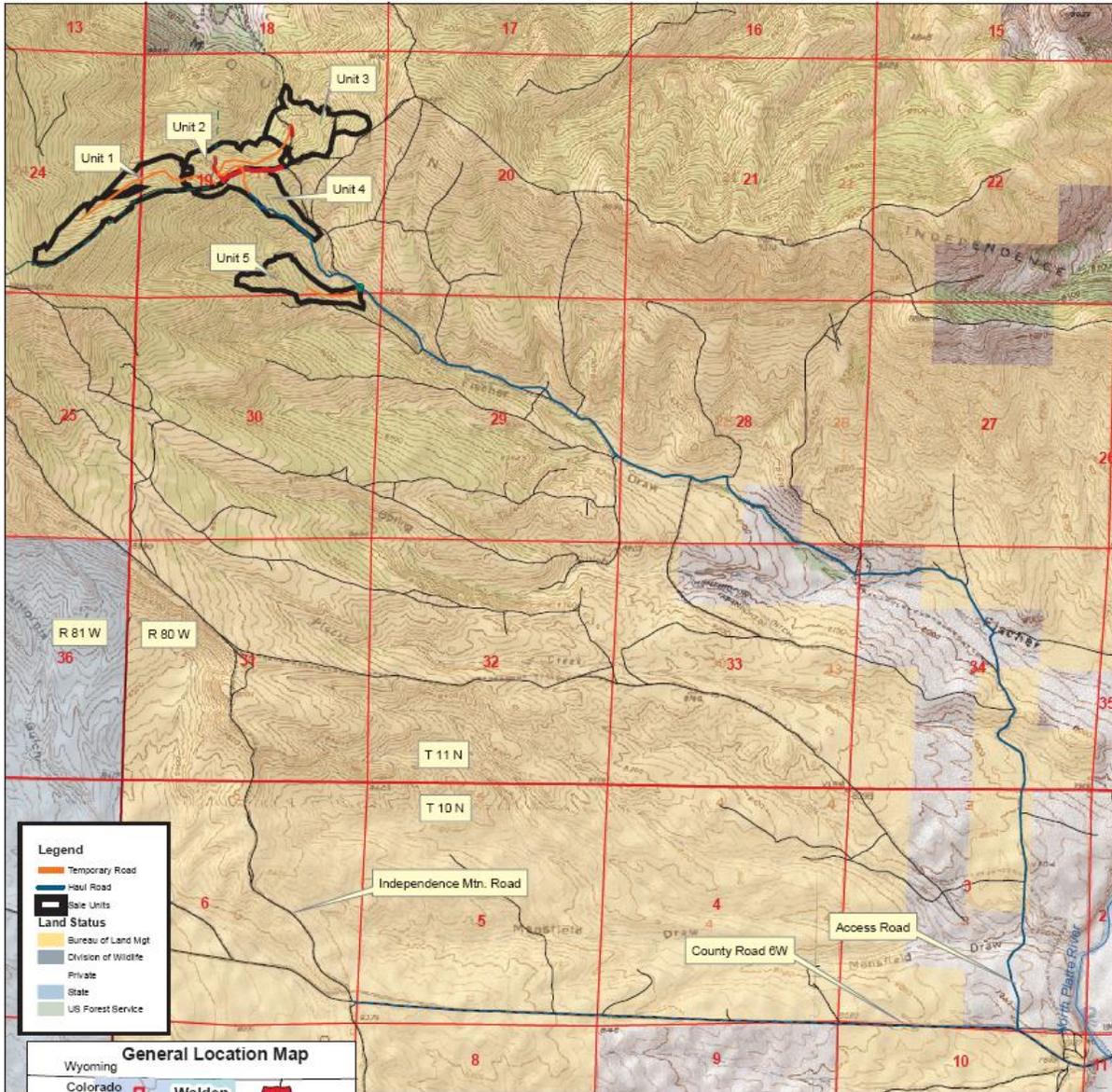
the Troutville have smooth long slopes. The Newcomb surface textures are loam, underlain by much coarser textures of very gravelly loam sand, with 60% gravel and cobbles. Permeabilities for both soils are moderately rapid to moderate, and have medium runoff rates due to the slope. The hazard of water erosion is moderate to severe, and the soils are rated as having moderate limitations for roads due to slopes and large stones.

Unit 5: Unit 5 also has limited acreage with steep slopes. Less than 1 acre (2.3%) of the unit has slopes exceeding 35%. The unit is located on a northeastern aspect, with any runoff draining into the upper branch of Fischer Draw above the proposed culvert. The very northeast boundary of the unit either includes or is just outside of a mapped seep that is located on the drainage above the culvert. In addition to increased runoff from Units 4 & 5, both units are within a planned fuels treatment area scheduled for treatment in 2010. If the logging road has not been reclaimed and the culvert is still in place, the culvert could carry increased flows from the 2 logging units and from the fuels treatment projects. Approximately 72% of the drainage above the culvert is planned for treatment, with only the southern slopes to the east of the main road being untreated. The actual amount of increased runoff will depend greatly on the fuels treatment project, but runoff would be expected to come slightly earlier and could be measurably larger, especially due to the mostly eastern aspect of the treatments.

P. Belcher



Fischer Draw Timber Sale Area



1:36,000

Maps: Independence Mtn.
 BLM, Kremmling FO 06/03/2008
 gisuser/forestry/fischerdraw_Exhibit_A

No Warranty is made by the Bureau of Land Management as to the Accuracy, Reliability, or Completeness of this Data for Individual Use or Aggregate Use with Other Data.

Appendix 1

INTERDISCIPLINARY TEAM ANALYSIS REVIEW RECORD AND CHECKLIST:

Project Title: Fischer Draw Salvage Sale

Project Leader: Ken Belcher, Forester

Consultation/Permit Requirements:

Consultation	Date Initiated	Date Completed	Responsible Specialist/ Contractor	Comments
Cultural/Archeological Clearance/SHPO	Report #CR-08-8 on 5/9/08. Report #CR-08-27	Report #CR-08-8 on 6/10/08	BBW	The project is a no effect; there are no historic properties that would be affected. See comments below.
Native American	5/9/08	6/9/08	BBW	To date no Native American tribe has identified traditional heritage concerns.
T&E Species/FWS	N/A	N/A	M. McGuire	
Permits Needed (i.e. Air or Water)	N/A	N/A	P. Belcher	The planned culvert that crosses Fischer Draw is on a temporary timber use road, which does not require a 404 permit. The new temporary road construction and upgrade is less than 1 acre and does not require a stormwater permit.

(NP) = Not Present

(NI) = Resource/Use Present but Not Impacted

(PI) = Potentially Impacted and Brought Forward for Analysis.

NP NI PI	Discipline/Name	Date Review Comp.	Initials	Review Comments (required for Critical Element NIs, and for elements that require a finding but are not carried forward for analysis.)
CRITICAL ELEMENTS				
NI	Air Quality Belcher	11/30/07	PB	Air Quality would not be impacted by the proposed timber sale.
NP	Areas of Critical Environmental Concern Stout	6/3/08	JS	There are no Areas of Critical Environmental Concern in the proximity of the proposed project area.
NI	Cultural Resources Wyatt	6/10/08	BBW	A cultural resource inventory report (#CR-08-9) was conducted on approximately 181 acres associated with the proposed project for commercial timber harvest, and on approximately 9 acres associated with the proposed haul road (i.e. 1.5 miles). The report indicated that no new or previously recorded cultural resource sites were within the 190 acres. An additional inventory report (#CR-08-27) was conducted on approximately 45 acres (i.e. 3.31 miles) associated with a proposed haul

					road that crosses both BLM-administered public land and private land. An historic site 5JA1880 was recorded and evaluated as not eligible to the National Register. Since the haul road would be realigned around site 5JA1880, there would be no impacts to cultural resources.
NP	Environmental Justice	Stout	6/3/08	JS	According to the most recent Census Bureau statistics (2000), there are no minority or low income communities within the Kremmling Planning Area.
NP	Farmlands, Prime and Unique	Belcher	11/30/07	PB	There are no farmlands, prime or unique, in the proximity of the proposed project area.
NP	Floodplains	Belcher	11/30/07	PB	The proposed action is not within a floodplain.
PI	Invasive, Non-native Species	Torma	11/28/08	PT	See analysis in EA.
PI	Migratory Birds	McGuire	11/19/07	MM	See analysis in EA.
NI	Native American Religious Concerns	Wyatt	6/2/08	BBW	To date no Native American tribe have identified traditional heritage concerns. Thus, there would be no impacts.
PI	T/E, and Sensitive Species (Finding on Standard 4)	McGuire	11/19/07	MM	See analysis in EA.
NP	Wastes, Hazardous and Solid	Hodgson	11/28/07	KH	There are no known quantities of wastes, hazardous or solid, located on BLM-administered lands in the proposed project area. Fueling of saws and machinery would be accomplished through established procedures, therefore there would not be any wastes generated as a result of the Proposed Action or No Action alternative.
PI	Water Quality, Surface and Ground (Finding on Standard 5)	Belcher	12/4/07	PB	See analysis in EA and attached Water Quality report.
PI	Wetlands & Riparian Zones (Finding on Standard 2)	Belcher	12/4/07	PB	See analysis in the EA and attached Water Quality report.
NP	Wild and Scenic Rivers	Monkouski	11/29/07	JM	There are no Wild and Scenic Rivers in the Kremmling Planning Area. An Eligibility and Suitability study will be conducted during the upcoming RMP Revision (2007).
NP	Wilderness	Monkouski	11/29/07	JM	There is no designated Wilderness or Wilderness Study Areas in the proximity of the proposed project area.
NON-CRITICAL ELEMENTS (A finding must be made for these elements)					
PI	Soils (Finding on Standard 1)	Belcher	12/04/07	PB	See analysis in the EA and attached Water Quality report.
PI	Vegetation (Finding on Standard 3)	K. Blecher	6/16/07	KB	See Forestry section in EA.
NP	Wildlife, Aquatic (Finding on Standard 3)	McGuire	11/19/07	MM	Finding: N/A
PI	Wildlife, Terrestrial (Finding on Standard 3)	McGuire	11/19/07	MM	See analysis in EA.
OTHER NON-CRITICAL ELEMENTS					
PI	Access/Transportation	Monkouski	6/1/08	JM	See analysis in EA.
NI	Fire	Wyatt	5/13/08	BBW	The proposed action lies within an established

				Wildland Urban Interface (WUI) that has been identified as the Jackson County North End Community Wildfire Protection Plan (2007). The area lies inside of a B designated polygon or Fire Management Unit (FMU) that requires full suppression of any wildfire. The removal of commercial timber that has been affected by Mountain Pine Beetle would help to reduce the potential affects from a catastrophic wildfire within the WUI by the removal of biomass material and the creation of artificial fire breaks.
PI	Forest Management K. Belcher	6//16/08	KB	See analysis in EA.
NI	Geology and Minerals Hodgson	11/28/07	KH	No impacts
NI	Hydrology/Water Rights Belcher	12/04/07	PB	See the attached Water Quality report and the related sections (water quality, soils, and wetlands) of the EA.
NI	Paleontology Rupp	6/3/08	FGR	The Area of Potential Effect (APE) is geologically mapped as the Coalmont formation (fm) and the Chugwater formation (fm). They are given a Potential Yield Classification and Condition Rating of 5 and 1, and 3 and 2 respectively. The Coalmont fm. is known to produce vertebraete and noteworthy occurrences of invertebraete and plant fossils. The Chugwater formation is unlikely to produce vertebraete fossils or noteworthy occurrences of invertebraete or plant fossils. The Coalmont fm. covers 95%+ of the APE, with only a small sliver of Chugwater fm. at the very north of the project area. A preliminary paleontological inventory was completed on November 16, 2007 and no paleontological resources were found. Thus, there would be no anticipated impacts.
NI	Noise Monkouski	11/29/07	JM	Minor short term impacts during operations.
NI	Range Management Torma	11/16/07	pt	There is livestock use in the area, however there would be no impacts to livestock grazing.
NP	Lands/ Realty Authorizations Cassel	11/5/07	SC	There are no leases, permits, or rights-of-way in the proposed project location
PI	Recreation Monkouski	11/29/07	JM	See analysis in EA.
NI	Socio-Economics Stout	6/3/08	JS	There would be no impacts.
PI	Visual Resources Windsor	11/28/07	AW	See analysis in EA.
PI	Cumulative Impact Summary Stout	6/11/08	JS	See above.
FINAL REVIEW				
	P&E Coordinator Stout	7/25/08	JS	
	Field Manager D. Stout			