

Decision Notice

& Finding of No Significant Impact

Burn Canyon and Bucktail Salvage and Reforestation

USDA Forest Service
Norwood Ranger District
Grand Mesa, Uncompahgre and Gunnison National Forest
San Miguel and Montrose Counties, Colorado

Background

An Environmental Assessment (EA) was prepared for the proposed "Burn Canyon and Bucktail Salvage Harvest and Reforestation." Notice, per 36 CFR 215.5, was published in the Grand Junction Daily Sentinel on February 28, 2003. The 30-day public comment period ended March 31, 2003.

The EA considered a proposal for salvage harvest, commercial live tree thinning, reforestation and related management activities in two separate areas that were burned in wildfires in the summer of 2002. The fires were the Burn Canyon and Bucktail Fires. Although these are two separate project proposals, one for each fire, they were analyzed and presented in one document. Both proposed the harvest of fire killed and seriously fire-damaged ponderosa pine, and reforestation within the burn perimeter of each fire. Activities also include thinning of some stands of live trees, and decommissioning of roads in accordance with the Uncompahgre Travel Plan. Both proposals are addressed in this Decision Notice.

The Burn Canyon Fire burn area is located on National Forest System lands in McKee, Callan, and Mud Springs Draws, about seven miles southwest of Norwood and three miles north of Miramonte Reservoir in San Miguel County. The total burned area is about 31,616 acres, of which 10,982 acres are within the National Forest boundary. About 2,016 acres were considered for salvage harvest followed by planting; an additional 2,116 acres located outside of salvage harvest areas, but within the Burn Canyon fire perimeter, were considered for planting; and about 344 acres of live ponderosa pine stands were considered for thinning.

The Bucktail Fire burn area is located about 17 miles north-northwest of Norwood on the southwest flank of the Uncompahgre Plateau in the Big Bucktail watershed. The total burn area is 2,244 acres, all of which are National Forest land. This fire occurred in May of 2002. Of the 2,244 total burn acres, about 189 acres were considered in the EA for salvage harvest followed by reforestation; an additional 216 acres outside of salvage harvest areas, but within the burn perimeter, were considered for planting; and about 296 acres of live ponderosa pine stands within the burn perimeter were considered for thinning.

Purpose and Need

From the EA, the purposes of, and need for, the actions proposed are:

- Recovery of potential commercial value of fire killed timber for wood products

Burn Canyon/Bucktail Salvage Sale Decision Notice/FONSI

- Sale of wood products to local industry
- To bring about re-forestation of non-stocked burned areas in a manner that facilitates the development of sustainable forest conditions.
- To improve residual stands of ponderosa pine through thinning, consistent with silvicultural objectives prior to the fire, but consistent with prudent management after the fire.

Additional purposes include wildlife and watershed improvements using KV funds, or other funds as available, removal of hazardous conditions to human use of the areas through removal of trees that may fall onto roads, and the implementation of decisions made in the Uncompahgre Travel Plan.

Decision

It is my decision, based on consideration of the EA, and public comments on the EA, to proceed with sale of salvageable fire-killed, and severely fire-damaged, timber in both the Burn Canyon and the Bucktail burn areas, and to implement associated activities described in Alternative 2 of the EA, with only a couple of exceptions. The following table details my specific decision.

Decision Elements	Burn Canyon	Bucktail
Salvage harvest	2,016 acres	189 acres
Commercial Thinning/Underburn	None	296 acres
Soil Productivity/Suitable for Timber harvest (NFMA)	Suitable lands only, but all soils within these areas	Suitable lands only, but all soils within these areas
Slope Class	<= 15% where fire severity High or Moderate; <= 25% where fire severity Low	<= 15% where fire severity High or Moderate; <= 25% where fires severity Low
Road Accessibility	No new construction; use only existing road templates	No new construction; use only existing road templates
Regeneration	Plant about 2,016 acres (all areas salvage harvested) plus 2,116 acres within the fire perimeter but outside the salvage harvest area	Plant about 189 acres (all areas salvage harvested) plus 216 acres within the fire perimeter but outside salvage harvest area.

Decision Elements	Burn Canyon	Bucktail
Riparian/channel restoration	For both the McKee Draw and Mud Springs watersheds, reshaping of headcuts and gully sidewalls and the installation of rock or geo-textile materials.	none
Travel Management	Decommission routes listed as listed and described on page 19 of the EA	Decommission routes listed as listed and described on page 19 of the EA
Water development	Yes, redevelopment of stock ponds in the area	Yes, redevelopment of stock ponds in the area
Grazing	No grazing of livestock for 2003, 2004	Limited grazing and monitoring
Wildlife Improvements using KV or other dollars	Replace 2 guzzlers, 700 acres of grouse habitat improvement	Replace 2 guzzlers, 700 acres of grouse habitat improvement
Hazard Tree Removal along developed roads	Along 15 miles of roads	Along 2 miles of roads
Site Preparation by falling some residual dead trees	In all areas receiving salvage cutting	In all areas receiving salvage cutting
Plantation fencing	Where necessary after monitoring	Where necessary after monitoring
Snag retention	Retain snags and patches of dead standing trees within salvage/regeneration areas at or above Forest Plan standards.	Retain snags and patches of dead standing trees within salvage/regeneration areas at or above Forest Plan standards.

Rationale for the Decision

Salvage harvest of fire-killed and severely fire-damaged ponderosa pine will allow for economic recovery of the value of the forest products from this area. This is consistent

with Plan Objectives (see EA page 28, and Forest Plan pages III-145 – III-154) for these management areas.

No active management activities can be undertaken without some environmental effects in terms of the issues listed above. However, we have designed a specific proposed action and mitigation measures that will allow for utilization of forest products and provide for reasonable protection of the environment. The incremental impact of salvage harvest, over effects of fires themselves is very small, and is well within acceptable limits for management activities on this portion of the National Forest.

There are those who object to any impact of active management on the landscape of the National Forest. Beschta et al (see references in EA) make a case for minimal intervention by man in the recovery of burned lands. We have examined arguments advanced in the Beschta Report in detail under each related issue in the EA and conclude that proposed activities are appropriate in the locations they are proposed. Many of the arguments in the Beschta report appear to be more applicable to the Northwest and the Inland Empire. My decision to limit salvage harvest to low gradient slopes, and the actual very low slopes of the majority of the area to be harvested, responds specifically to many concerns raised by Beschta and others, and minimizes the effects to soils and water (see EA pages 50-78 for discussion of effects, see Table 3.8 of EA page 60 for slopes of areas to be treated).

Wildfire created large forest canopy openings in the burn areas, since needles and small limbs were removed from the entire canopy by the fire. Without human intervention, fire killed trees will begin to fall within a very short period of time and natural vegetation processes will begin to occur. However, due to the intensity of the fire and distance from a ponderosa pine seed source, the pre-fire forested conditions are not expected to return for over a century. Planting will accelerate the ecological restoration of the burned areas.

Salvaging some of the burned trees from some of the openings created by the fire, where effects are expected to be minimal will not detract from the ecological recovery. The mitigation for soil and wildlife habitat concerns, as discussed in the EA and this Decision, will minimize the effects of the salvage harvest through retention of some snags and downed woody material. The safety of the planting crews and the general public traversing the burned areas will be maintained by the removal of some of the trees. In addition, salvaging the trees not needed for ecological recovery allows some recovery of economic value, thereby providing wood products to local industry.

The effects of the Bucktail fire on the post-burn distribution of live ponderosa pine were limited. The surviving live pine stands within the fire perimeter remain connected with the large continuous band of ponderosa pine that existed before the fire (EA Map B). The ecological function of these stands remains essentially unaltered by the fire. The proposed thinning and underburning of these stands is an extension of forest management activities planned for these areas prior to the fire and it is my decision to thin these stands. Removal of selected stems will improve tree growth and will also meet fuels management objectives of having tree stands with less continuous small fuels. The improved vigor of thinned stands will make them more resistant to future fire damage, more resistant to attack by insects, and better able to withstand other forms of

disturbance. In the case of the Bucktail fire itself, the fire was contained in part by the presence of thinning treatments in the area, done in previous years for these very same purposes.

In contrast to the Bucktail burn, the Burn Canyon fire had a considerable effect on the post-burn distribution of live ponderosa pine stands within the burn perimeter. Residual pine stands form a few scattered islands (EA Map B). Considering their current structure and location on the landscape, these stands provide important hiding and thermal cover for big game and are also valuable as ecotone and diversity. It is my decision to forgo thinning of these residual live pine stands in the Burn Canyon area.

It is my decision to reforest the areas which are salvage harvested by planting ponderosa pine seedlings that are genetically adapted to this area. It is also my decision to replant burned areas outside of the salvage sale area in both Burn Canyon and Bucktail, using the same seedling stock. If not planted these areas will take decades to regenerate to desired native forest species, beginning first with areas nearest the seed sources on the edge of the fire. The forest edge would migrate inward towards the heart of both burns, but only as new forests at the edge mature and begin to produce seed. Competing lower vegetation would take over these sites and interfere with the establishment of ponderosa pine, further slowing recovery of these areas as ponderosa pine forest. (See EA pages 29-38 for discussion of fire ecology and reforestation under no action versus replanting options) It is my decision to reforest these lands to return to productive ponderosa pine stands, to be managed for timber production and harvest consistent with Forest Plan direction for the area.

The construction of the water developments is essentially restoration of existing stock watering facilities. These developments provide water for livestock and for wildlife and enhance both livestock grazing and wildlife habitat effectiveness.

The grazing allotment within which Burn Canyon fire occurred will be rested for the grazing seasons of 2003 and 2004. Following that, based on recovery of the range, stocking levels for livestock will be determined. Numbers and distribution of livestock will be determined considering grazing effects on reforestation as well. The Bucktail fire burned 2,240 acres within a 33,000-acre grazing allotment. Livestock use of this area will be managed through redistribution of use to other areas of the allotment. This area will be monitored to ensure recovery of vegetation is not suffering from grazing and use will be removed if it is.

A mitigation measure of falling and leaving slash on the ground provides for shade for seedlings, better ensuring reforestation success, and also provides surface barriers to overland flow of water, reducing erosion. It also provides microhabitats for wildlife.

As part of riparian/stream channel restoration in both McKee Draw and Mud Springs Draw, headcut erosion control structures will be constructed to halt active gully development. This will be done using KV or appropriated funds as they are available.

There will be no construction of new roads. In using the existing roads, there is expected to be some soil loss from these areas associated with proposed treatments, however, mitigation measures will be used to comply with Forest Plan direction.

Compliance With Other Laws And Regulations

To the best of my knowledge this alternative meets requirements under NFMA, NEPA, ESA, and all other applicable laws and regulations.

Mitigation Measures Made A Part Of This Decision (See DN Appendix A for discussion of the anticipated effectiveness of these measures)

Mitigation for the Protection of the Soil Resource (From FSH 2509.25 Watershed Conservation Practices Handbook):

- Restrict roads, landings, skid trails, concentrated-use sites, and similar soil disturbances to designated sites, and to no more than 15% of any land unit
- Use existing skid trails when possible; designate new skid trails routes and restrict skidding operations to those trails to the extent possible; limit off-trail travel.
- To limit compaction, operate heavy equipment for land treatments only when soil moisture is below the plastic limit or protected by at least 1 foot of packed snow or 2 inches of frozen soil. Soil moisture exceeds the plastic limit if the soil can be rolled into 3 mm threads without breaking or crumbling
- To prevent rutting, operate heavy equipment within harvest units only when soils are unsaturated.
- Work on contour as much as possible, (skid trail lay out, log retrieval, etc.)
- On skid trails greater than 15% slope, if there are any, provide cross drain water control at least every 30 ft
- Keep all slash on site, (lop and scatter) Retain at least 5 to 10 tons/acre of material over 6 inches DBH.

Mitigation for the Protection of the Water Resource:

For all treatment areas:

- As a minimum buffers will extend 100 feet either side of any surface drainage feature. A surface drainage feature is defined as any water-course where evidence of a defined channel exists; this includes perennial, intermittent and ephemeral streams. No ground disturbing activities will be allowed within any buffer areas. Ground disturbance is defined as removal of ground cover or displacement of soil.

Specific to Salvage Logging Areas

- No commercial timber harvest will occur within 100 feet of surface channels.
- Where activities are planned within areas that were moderate or high burn severity on slopes steeper than 10%, the buffer around surface drainages will be extended to 200 feet. On slopes steeper than 15% the buffer will be extended to 300 feet. Removal of merchantable timber may occur outside of the 100-foot buffer, so long as no ground disturbance results.

- Variations to prescribed buffer widths and exceptions to permitted actions may be allowed to the stream-course protection above based upon a site-specific review of conditions at the time a change is proposed. The progress of recovery of soil and ground cover conditions will be the primary consideration in adjustments to buffer widths and permitted actions. Variation and exception must be approved by the Sale Administrator only after consultation with Forest Hydrologist and Norwood District Ranger.
- All stream course features that are identified on the Forest GIS stream cover will be included as protected stream courses in the salvage sale contract.
- Seeps and springs constitute riparian areas and will be identified at the time of sale layout. No harvesting will occur within 50 feet of the edge of these riparian areas.
- Logging slash will be left on site to aid in organic matter recycling and erosion protection. If whole tree logging is conducted then non-merchantable material will be removed from landings and distributed back across the unit, as directed by the sale administrator.

Specific to Thinning Areas

- All stream course features that are identified on the Forest GIS stream cover will be included as protected stream courses in the salvage sale contract.
- No ground disturbing activities will be permitted within 100 feet of perennial or intermittent drainages. No commercial thinning will be permitted within 50 feet of surface channels. Removal of merchantable timber may occur within the 50 to 100 foot buffer, so long as no ground disturbance results.
- No skid trails, landings, slash piles, or service areas will be permitted to directly impact ephemeral drainages. Skidding across ephemeral drainages may be permitted by the Sale Administrator, but will be done only at designated locations and with site restoration agreed to in advance.
- Seeps and springs constitute riparian areas and will be identified at the time of sale layout. No harvesting will occur within 50 feet of the edge of these riparian areas.
- Logging slash will be left on site to aid in organic matter recycling and erosion protection. If whole tree skidding is conducted then non-merchantable material will be removed from landings and distributed back across the unit, as directed by the sale administrator.

Specific to Roads

- Surface drainage features, i.e., ditches, dips, culverts, road crowns will be fully functional at all times throughout the term of salvage and thinning operations.

Mitigation for the Protection of Plant/Forest Regeneration:

- Silvicultural prescriptions will address the need for measures to protect plantations from livestock damage during the regeneration period.

Mitigation for Management of Noxious Weeds:

- Use timber sale contract provisions for requiring all off road logging and construction equipment to be free of noxious weeds when moving onto the sale area and/or moving between units on the sale area that are known to contain noxious weeds. Specifically, Use CT6.35 - Equipment Cleaning (7/01). In this provision the purchaser has to certify that his equipment is weed free. The Forest Service would reserve the right of inspections prior to the equipment's use and to verify that each piece operating in the woods is clean.
- Annual monitoring of the burned and harvested area will continue for a minimum of 4 years following activity.
- On-going noxious weed treatment will continue to receive high priority in close proximity to this area.
- Education on the identification of noxious weeds to Forest Service personnel will continue. This applies specifically to (but is not limited to): pre-sale layout crews and sale administrators.

Mitigation for the Protection of T/E Species:

- Beyond the evaluations and determinations being completed to comply with Section 7 of the Endangered Species Act, should any endangered, threatened, or sensitive species be found during project activities within, adjacent, or near enough to the project that activities could create a disturbance, activities will be halted until their effects can be determined and their significance assessed.

Mitigation for the Protection of the Wildlife Resource:

Structural wildlife habitat specifications for timber salvage:

- Retain 90-225 snags per 100 acres 10" dbh or greater. Snags can be retained as individual trees or in groups or patches.
- Retain an average length per acre of down-dead logs which are at least 12" diameter of 50 linear feet per acre.
- To provide habitat for the Abert squirrel, nesting habitat will be retained at all existing nest tree sites. This includes the nest tree and all mature trees associated with the nest tree. In addition, retain a minimum of one group of 3-5 mature trees with interlocking crowns per 5 acres within the remaining thinning area for nesting habitat.
- Limit spring burning to 50% of the affected treatment area each year to alleviate impacts to ground-nesting birds such as the Merriams turkey.

- Existing snags and other wildlife trees within burning units will be protected through pre-burn site preparation and ignition techniques.

Mitigation for the Protection Of Heritage Resources:

- Beyond the evaluations and determinations being completed to comply with Section 106 of the National Historic Preservation Act (see chapter 3), if cultural resources are found during the implementation of proposed activities, project activity will stop in the immediate area while a plan to mitigate the effects is formulated. Once the mitigation work is completed and resources are protected, project activity would proceed.

Mitigation for Recreation and Wildlife:

- If harvest activities in the Bucktail burn occur in the winter, the only snow-plowing that would be allowed for this sale would be from the sales area south into Nucla.

Monitoring

General monitoring of the recovery of these burned areas will be done by the ID Team. Each summer for three years, the team will visit these sites and assess the progress of recovery of vegetation, as well and the effects of harvest. Results of these assessments will be documented in the annual Forest Plan Monitoring report.

Project Implementation: General implementation of the project (sale design, contract preparation, contract administration, and implementation of mitigation measures) will be completed by qualified Forest Service personnel and reviewed by the Norwood District Ranger and staff. Contract administration will be conducted on a regular basis and as needed to obtain acceptable contractor performance.

Noxious Weeds: Disturbed areas such as roads, landings and skid trails will be monitored for noxious weeds and any weeds will be eradicated before they become established.

Range recovery on both fires will be monitored. On the Bucktail allotment, effects of limited grazing will be monitored each summer to determine if this use should continue.

Recreation: The timber sale administrator will ensure the contract provisions requiring traffic warning signs, etc. will be followed.

Reforestation: Regeneration success will be reviewed in years 1 and 3 after planting. Should this monitoring conclude that additional cultural treatments are required, these treatments will be scheduled.

Soils: Monitoring of the project is necessary to insure that mitigation measures and Forest Plan Standards and Guidelines have been followed and are effective in preventing degradation of the soil resource.

1. Monitor to ensure all erosion control measures are implemented and effective in controlling erosion. Monitoring will be performed by the Timber Sale Administrator and occasionally by Forest Watershed Specialists.

2. Monitor soil moisture conditions during harvest activities to assure that heavy equipment use is only occurring during periods of time when the soil is dry enough to support the use without excessive impact. Monitoring will be performed by the Timber Sale Administrator in coordination with the Forest Soil Scientist.
3. Monitor total area disturbed during and after harvest activities to assure soil quality objectives of keeping detrimental soil impacts to less than 15% of the area have been met. Monitoring will be performed by the Forest Soil Scientist, Timber Sale Administrator, and watershed staff.

Water Quality: Review BMPs and water influence zones after all logging related activities are completed.

Wildlife:

Monitoring will ensure that all mitigation measures are implemented.

Alternatives Considered

Three alternatives were considered in the EA. See pages 13-20 for descriptions of them. Alternative 1 was the No Action alternative, Alternative 2 was the Proposed Action, and Alternative 3 was a proposal to salvage harvest but to limit thinning.

Other alternatives, including one specifically responsive to the Beschta report, were considered but eliminated from detailed study because they failed to meet the basic purpose and need as stated in Chapter 1 of the EA (see EA pages 21-23).

Public Involvement

The proposed action was described in a scoping packet that that was mailed to the public and other agencies for comment on November 8, 2002. The packet was sent to a mailing list of approximately 140 interested parties. The proposal was also listed in the Schedule of Proposed Actions published on October 15, 2002. In addition, as part of the public involvement process, the agency conducted an open house at the Norwood District office on the evening of November 20, 2002.

Contact regarding the proposals within the salvage area was initiated with Northern Ute and Mountain Ute Indian Tribes initially on November 8, 2002 as part of scoping.

Using the comments from the public, the interdisciplinary team identified issues regarding the effects of the proposed action.

Main issues of concern included:

- Fire ecology/Fuels Management;
- Plant revegetation/forest regeneration (regeneration success/protection of regeneration from browse damage);
- Timing of salvage (before lost to insect damage);
- Noxious weeds;
- Insects and diseases;
- Soil movement and compaction;

Burn Canyon/Bucktail Salvage Sale Decision Notice/FONSI

- Nutrient cycles, water quality and quantity;
- Riparian/Wetlands/Fisheries;
- Wildlife;
- Road access;
- Visual impacts;
- Heritage resources;
- Impacts to recreation;
- Log haul routes;
- Economics of harvest;
- Local economy;
- Cumulative effects.

Consequences of implementing alternatives is discussed in terms of each of the issues in Chapter 3 of the EA, and are summarized in Chapter 2, thus providing a basis for choice among alternative proposed actions. Mitigation measures designed to reduce or eliminate certain environmental impacts are also examined in the EA.

The EA was made available for public comment on February 28, 2003. It was mailed to those who commented during scoping, and to those known to have interest in these projects. A letter advising of the availability of the EA was mailed to the original scoping mailing list. A news release was sent to all local news media on March 4. The EA was also available on the Internet web site for the GMUG National Forest.

I have also reviewed comments on the EA. These comments and responses to them have been prepared as an appendix to the EA.

Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following:

1. My finding of no significant environmental effects is not biased by the beneficial effects of the action.
2. There will be no significant effects on public health and safety. Opportunity is presented to better protect public safety in the removal of hazard trees from along forest roads used by the public. The scale of this action in the context of broader National Forest management, however, is not significant.
3. There will be no significant effects on unique characteristics of the area. There are no significant historic or cultural resources, no park lands, no prime farmlands, and no wild and scenic rivers within or near the project areas. Wetlands within the fire perimeters are very limited and are associated with streams outside of the salvage sale area.

4. The effects on the quality of the human environment are not highly controversial. We are aware of some disagreement on the part of Beschta and others, reflected in the what is known as the Beschta report. We do not believe this rises to the level of controversy intended by this criterion for significance. The Beschta report is written with identifiable philosophical bias towards preservation of natural processes, and represents views of others in the public who oppose salvage harvest. Disagreement with proposed actions on a National Forest does not constitute the controversy envisioned by the framers of 40 CFR 1500, or else every project proposed on public lands would require an EIS. Even Beschta recommendations/concerns have limited application in the Burn Canyon and Bucktail areas, because these watersheds have not suffered the severe impacts that those upon which Beschta is based have, and gentle slopes within the project area mitigate much of the impact of concern to Beschta. The effects disclosed in the EA are relatively predictable and certain, and are not subject of controversy.
5. The Forest Service has had considerable experience with the salvage harvest of fire killed timber, reforestation and thinning activities proposed. Each year thousands of acres of National Forest are affected by wildfire. Many are salvage logged and replanted, most in physical terrain and conditions much more severe than at Burn Canyon and Bucktail. Fire and treatment following fire has been the focus of forestry education and research for a very long time. The effects of what is proposed are not uncertain, and do not involve unique or unknown risk.
6. The action is not likely to establish a precedent for future actions with significant effects. From 5 above, post-fire treatments are routinely applied across the National Forest System each year.
7. Cumulative actions considered in the analysis are listed on page 23-25 of the EA. Each resource section of Chapter 3 of the EA addresses those actions which are applicable and discloses cumulative effects. In the course of these analyses, the effects of these actions, in terms of the resource of concern, were bounded in terms of time and space, and overlaid with proposed action to determine if there was an effect which might not be significant individually, but is cumulatively. We find that the cumulative impacts of proposed actions, considered together with other past, present, and reasonably foreseeable actions in the area are not significant.
8. The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, as none exist in the area. The action will also not cause loss or destruction of significant scientific, cultural, or historical resources. See pages 97-98 of EA.
9. The action will not adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species act of 1973 (see EA pages 88 and 92). As our finding in the Biological Assessment was a "No Effect" for any and all listed species, no concurrence is required from the US. Fish and Wildlife Service (USFWS).

10. The action will not violate Federal, State, and local laws or requirements for the protection of the environment.

NFMA Findings and Findings Required by Other Laws and Regulations

The action is consistent with the Grand Mesa, Uncompahgre and Gunnison Land and Resource Management Plan (See EA pages 28). This decision is consistent with the intent of the forest plan's long term goals and objectives listed on pages III-2 – III-5 of the Plan, and with management area direction for the Management Areas within which activities will occur. These are Management Areas 6B and 7A, pages III-145 – III-154 of the Plan. The project was designed in conformance with land and resource management plan standards and guidelines for these.

No harvest will occur on lands classified as unsuitable for timber production, as defined in 36 CFR 219.14 and 219.27 (c)(1).

Implementation Date

If no appeal is received, this decision may be implemented on or after the 50th day following publication of a notice of this decision in the Grand Junction Daily Sentinel.

Administrative Review or Appeal Opportunities

This decision is subject to appeal in accordance with 36 CFR 215. A notice of appeal must be in writing and clearly state that it is a Notice of Appeal being filed in pursuant to 36 CFR 215.7. Appeals must be filed within 45 days of the date of legal notice of this decision in the Grand Junction Daily Sentinel. Send appeals to:

For delivery services to a physical street address

Appeals Deciding Officer
U.S.D.A., Forest Service
Rocky Mountain Region
740 Simms
Golden, Colorado 80401

For U.S. Postal Service delivery

Appeals Deciding Officer
U.S.D.A., Forest Service
Rocky Mountain Region
P.O. Box 25127
Lakewood, Colorado 80225

Contact

For additional information concerning this decision or the Forest Service appeal process, contact Jeff Burch, Grand Mesa, Uncompahgre and Gunnison NF Supervisor's Office, at 970-874-6649, or Tim Garvey, Ouray Ranger District, at 970-240-5300

ROBERT L. STORCH

Date

Forest Supervisor

Grand Mesa, Uncompahgre and Gunnison National Forests

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Decision Notice Appendix A

Effectiveness of Mitigation Measures

Mitigation for the Protection of the Soil Resource (From FSH 2509.25 Watershed Conservation Practices Handbook):

- Restrict roads, landings, skid trails, concentrated-use sites, and similar soil disturbances to designated sites, and to no more than 15% of any land unit
- Use existing skid trails when possible; designate new skid trails routes and restrict skidding operations to those trails to the extent possible; limit off-trail travel.
- To limit compaction, operate heavy equipment for land treatments only when soil moisture is below the plastic limit or protected by at least 1 foot of packed snow or 2 inches of frozen soil. Soil moisture exceeds the plastic limit if the soil can be rolled into 3 mm threads without breaking or crumbling

Effectiveness: *Taken together, these three measures protect at least 85% of the area from the effects of compaction. Effectiveness is 100% for that area. Those areas used for skidding and roading do suffer compaction. This is an on-site effect and is considered an acceptable tradeoff for the management of the resource.*

- To prevent rutting, operate heavy equipment within harvest units only when soils are unsaturated.

Effectiveness: *This measure is effective at eliminating most but not all rutting. It prevents deep rutting which does not heal over time.*

- Work on contour as much as possible, (skid trail lay out, log retrieval, etc.)
- On skid trails greater than 15% slope, if there are any, provide cross drain water control at least every 30 ft

Effectiveness: *Taken together, these two measures control run off and the associated soil movement that goes with it. They are highly effective in terms of prevention of soil loss and downcutting in skid trails.*

- Keep all slash on site, (lop and scatter) Retain at least 5 to 10 tons/acre of material over 6 inches DBH.

Effectiveness: *Tree tops and branches left on the ground are highly effective measures for prevention of overland flow of water and soil loss. These essentially create thousands of little check dams to stop water flow and prevent soil movement, until vegetation is reestablished.*

Mitigation for the Protection of the Water Resource:

For all treatment areas:

- As a minimum buffers will extend 100 feet either side of any surface drainage feature. A surface drainage feature is defined as any water-course where evidence of a defined channel exists; this includes perennial, intermittent and ephemeral streams. No ground disturbing activities will be allowed within any buffer areas. Ground disturbance is defined as removal of ground cover or displacement of soil.

Specific to Salvage Logging Areas

- All stream course features that are identified on the Forest GIS stream cover will be included as protected stream courses in the salvage sale contract.
- No commercial timber harvest will occur within 100 feet of surface channels.
- Where activities are planned within areas that were moderate to high burn severity on slopes steeper than 10%, the buffer around surface drainages will be extended to 200 feet. On slopes steeper than 15% the buffer will be extended to 300 feet. Removal of merchantable timber may occur outside of the 100-foot buffer, so long as no ground disturbance results.
- Exemptions may be allowed to the stream-course protection outline above based upon site-specific conditions at the appropriate time. The progress of recovery of soil and ground cover conditions will be the primary consideration in adjustments to buffer widths.
- Exemptions to buffer widths will be made only after the Sale Administrator consults with the Forest Hydrologist and District Ranger.
- Seeps and springs constitute riparian areas and will be identified at the time of sale layout. No harvesting will occur within 50 feet of the edge of these riparian areas.
- Logging slash will be left on site to aid in organic matter recycling and erosion protection. If whole tree logging is conducted then non-merchantable material will be removed from landings and distributed back across the unit, as directed by the sale administrator.

Specific to Thinning Areas

- All surface drainages will be listed as protected stream-courses in the timber sale contract.
- No ground disturbing activities will be permitted within 100 feet of perennial or intermittent drainages. No commercial thinning will be permitted within 50 feet of surface channels. Removal of merchantable timber may occur within the 50 to 100 foot buffer, so long as no ground disturbance results.
- No skid trails, landings, slash piles, or service areas will be permitted to directly impact ephemeral drainages. Skidding across ephemeral drainages may be permitted by the Sale Administrator, but will be done only at designated locations and with site restoration agreed to in advance.

- Seeps and springs constitute riparian areas and will be identified at the time of sale layout. No harvesting will occur within 50 feet of the edge of these riparian areas.
- Logging slash will be left on site to aid in organic matter recycling and erosion protection. If whole tree skidding is conducted then non-merchantable material will be removed from landings and distributed back across the unit, as directed by the sale administrator.

Effectiveness: *Taken together the measures above for the establishment of buffers, or protection zones for streams and riparian areas are highly effective at buffering water courses from sedimentation. Studies conducted on Forests in Montana and California indicate that this is one of the most effective Best Management Practice available to land managers for water quality protection. This practice has been evaluated at various locations on the GMUG NF, and similar to the published studies, has been found to be very effective. There is less certainty regarding their effectiveness for burned areas. In order to compensate for the loss of groundcover and to increase the margin of safety given the uncertainty of effectiveness the buffer widths have been increased by 100% over what has typically been applied to unburned sites. Any soil movement reaching streams would be due not to management activities, but rather that which would occur naturally. These measures essentially eliminate the potential impact of harvest in terms of sedimentation. Sediment does not typically move across these distances except in significant and uncommon precipitation events. In these situations overall impacts of these storms overshadows the effects that can be attributed to management. This practice has been evaluated*

Specific to Roads

- Surface drainage features, i.e., ditches, dips, culverts, road crowns will be fully functional at all times throughout the term of salvage and thinning operations.

Effectiveness: *Maintenance of drainage features on roads is very important to the mitigation of the effects of water and sedimentation. Draining roads surfaces properly is effective in terms of controlling sediment, however it does not result in elimination of this effect. Without extraordinary measures, sediment from forest roads cannot be completely prevented. Roads and skid trails in the Burn Canyon and the Bucktail areas are located on gentle slopes or along the valley floor with road grades generally 5% or less. Implementation of this requirement is expected to be highly effective.*

Mitigation for the Protection of Plant/Forest Regeneration:

- Silvicultural prescriptions will address the need for measures to protect plantations from livestock damage during the regeneration period.

Effectiveness: *Tree seedling survival monitoring occurs as a standard practice after the first, third, and fifth growing seasons following planting. At these intervals, permanent sample plots established at the time of planting are revisited.*

Seedling condition and growth are measured and the effectiveness of seedling protection measures assessed and, if necessary, adjusted. Seedling protection mitigation measures include retention of down woody debris to impede animal travel, as discussed in the EA; use of seedling protection tubes, a standard reforestation practice on the Norwood district that effectively reduces deer, elk, and rodent feeding damage; and the installation of fence, a contingency measure discussed in the EA.

Mitigation for Management of Noxious Weeds:

- Use timber sale contract provisions for requiring all off road logging and construction equipment to be free of noxious weeds when moving onto the sale area and/or moving between units on the sale area that are known to contain noxious weeds. Specifically, Use CT6.35 - Equipment Cleaning (7/01). In this provision the purchaser has to certify that his equipment is weed free. The Forest Service would reserve the right of inspections prior to the equipment's use and to verify that each piece operating in the woods is clean.

Effectiveness: *This measure is highly effective at preventing transport of weed seed from one area to another. Movement of people and equipment through the burned does continue to pose some risk of weed seed being transported, on tires, boots, or other equipment, but washing possible seed and soils from equipment substantially reduces this risk. Weed seed will be transported to the area by a number of natural means as well.*

- Annual monitoring of the burned and harvested area will continue for a minimum of 4 years following activity.

Effectiveness: *This measure is highly effective for identifying weed infestations that could occur within the fire area. Treatment of the weed infestations would also be required in order to reduce the spread of weeds. However, even with highly trained personnel, it is relatively easy to misidentify weed species, particularly in early phenological stages, or if the plants are particularly small, or not common in the area and thus not easily recognized.*

- On-going noxious weed treatment will continue to receive high priority in close proximity to this area.

Effectiveness: *This measure is highly effective at reducing the spread of existing weed infestations. Existing weed infestations have reduced canopy cover, noticeably reduced plant vigor, and reduced seed production.*

- Education on the identification of noxious weeds to Forest Service personnel will continue. This applies specifically to (but is not limited to): pre-sale layout crews and sale administrators.

Effectiveness: *This measure is highly effective for identifying existing and new weed infestations. Training of field personnel to improve their ability to identify locally common weed species increases the overall probability of locating, identifying, and treating weed infestations.*

Because of the scale and intensity of the fires, it is impossible to completely mitigate or prevent new noxious weed infestations. *The effect of the fires on the landscape has been to remove vegetation and litter, leaving sites that lend themselves to the introduction and establishment of noxious weeds. The application of the mitigation measures increases the likelihood of preventing, identifying, and treating noxious weed infestations.*

Mitigation for the Protection of T/E Species:

- Beyond the evaluations and determinations being completed to comply with Section 7 of the Endangered Species Act, should any endangered, threatened, or sensitive species be found during project activities within, adjacent, or near enough to the project that activities could create a disturbance, activities will be halted until their effects can be determined and their significance assessed.

Effectiveness: *This requirement is designed to ensure that no effect on any T/E species will take place.*

Mitigation for the Protection of the Wildlife Resource:

Structural wildlife habitat specifications for timber salvage:

- Retain 90-225 snags per 100 acres 10" dbh or greater. Snags can be retained as individual trees or in groups or patches.
- Retain an average length per acre of down-dead logs which are at least 12" diameter of 50 linear feet per acre.
- Structural wildlife habitat specifications for thinning/burning of live trees:
- To provide habitat for the Abert squirrel, nesting habitat will be retained at all existing nest tree sites. This includes the nest tree and all mature trees associated with the nest tree. In addition, retain a minimum of one group of 3-5 mature trees with interlocking crowns per 5 acres within the remaining thinning area for nesting habitat.
- Limit spring burning to 50% of the affected treatment area each year to alleviate impacts to ground-nesting birds such as the Merriams turkey.
- Existing snags and other wildlife trees within burning units will be protected through pre-burn site preparation and ignition techniques.

Effectiveness: *Taken together these measures are only somewhat effective in terms providing for wildlife following treatment. In the case post fire treatments proposed, the effects of the fires themselves on wildlife habitat has been substantial, and it is impossible to immediately mitigate these effects. Application of these measures does provide for better conditions for wildlife during the time that the site recovers.*

Mitigation for the Protection Of Heritage Resources:

- Beyond the evaluations and determinations being completed to comply with Section 106 of the National Historic Preservation Act (see chapter 3), if

cultural resources are found during the implementation of proposed activities, project activity will stop in the immediate area while a plan to mitigate the effects is formulated. Once the mitigation work is completed and resources are protected, project activity would proceed.

Effectiveness: *This measure provides a high level of assurance that no heritage resources will be damaged or destroyed.*

Mitigation for Recreation and Wildlife:

- If harvest activities in the Bucktail burn occur in the winter, the only snow-plowing that would be allowed for this sale would be from the sales area south into Nucla.

Effectiveness: *Hauling timber south from the Bucktail area during winter months would avoid both potential impact to lynx habitat and conflict with recreational snowmobile use on the Uncompahgre Plateau.*