

**DECISION MEMO**  
USDA Forest Service  
**Lewis and Clark National Forest**  
**Musselshell Ranger District**  
Wheatland County, Montana

**WHITETAIL SALVAGE**

**I. Introduction**

The Musselshell Ranger District has identified approximately 65 acres of National Forest System lands where 10-40% of the Douglas-fir has been killed and some remaining trees are at an elevated risk for insect-related mortality. These lands are located approximately 36 miles west of Harlowton, MT near Road #274, in the Little Belt Mountains. The proposed treatment area lies in Sections 30-32, T11N, R10E and sections 5-6, T10N, R10E. The purpose of the proposed treatment is to harvest potential mortality, create an open stand structure, reduce moisture stress in remaining trees, and reduce susceptibility of remaining trees to attack by Douglas-fir beetles (*Dendroctonus pseudotsugae*) by removing some of the infested and some adjacent uninfested trees.

**II. DECISION**

It is my decision to approve the treatment of two harvest units totaling about 65 acres of National Forest System lands including the construction of less than ½ mile of temporary road as described above. My decision includes use of specific design and mitigation criteria identified on pages 7 and 8.

This decision provides for the treatment of specified National Forest System lands and these treatments are consistent with the objectives for Lewis and Clark Forest Plan Management Area B, as well as direction provided in the National Fire Plan and Cohesive Strategy regarding treatment of Condition Class 2 & 3 stands in dry forest types.

I have also considered the potential for cumulative effects and concluded that cumulative effects will not be significant.

**III. RATIONALE FOR DECISION**

My conclusion is based on: review of the Biological Evaluation, watershed and soils reports, the low risk of environmental impact, the minimal environmental change expected, findings related to extraordinary circumstances, the design criteria to be applied, and my on-the-ground review and discussions with resource specialists.

Existing stand conditions are not desirable from a forest health perspective. Stands are near maximum density and suffering physiological stress due to the high stocking rate and the droughty conditions of the past few years. As a result of these conditions, many

trees have attracted Douglas-fir bark beetles and 10-40% of the Douglas-fir has been killed.

The area falls within Management Area B identified in the Lewis and Clark Forest Plan. The goal for Management Area B is, "Emphasize timber management and provide a moderate level of livestock forage production, while minimizing impacts to other resources" (L&CNF Forest Plan, 1986, pg III-9). To meet these expectations, these stands would have only incidental mortality and be in a condition to provide benefits including forest products into the future. Stands with a more open structure and fewer large diameter trees are less susceptible to mortality from Douglas-fir bark beetles (Project Record; G-4, G-5, G-6, G-7,).

Surveys in Unit 1 show nearly 35% of the trees over 14" in diameter and 54% over 19" in diameter have been killed. In Unit #3, only about 3% of the trees over 14" have been killed so far, but 37% of the growing stock (as measured by basal area) includes susceptible sized trees (Project Record F-12, F-13). Without treatment, mortality will continue and may result in 30-50% mortality and threaten other areas over the next few years. This is of particular concern because the largest trees in the stand are most attractive to beetles and account for most of the mortality.

These stands previously met criteria for old growth. Continued loss of large trees will reduce the value of these and other stands potentially below minimum tree criteria for old growth. The existing level of old growth in the commercial forest portion of compartment 633 is over 8.1% and will be at least 7.5% following treatment. The Forest Plan standard is 5% of the commercial forest land within a compartment. Forest-wide, old growth is estimated to be about 10% of the commercial forest. Additional detail is located in the Project Record, (F-7; Old Growth Report).

The proposed treatment is intended to harvest green trees and some of the dead trees reducing moisture stress and providing more light and nutrients. This physiological change may reduce the rate of mortality in the remaining trees. The proposed treatment includes removing about half of the trees that are generally 8-16 inches in diameter at breast height (DBH). In site-specific areas, trees over 16" DBH may be removed in order to provide for insect and disease management as well as improving vigor on the remaining trees or for safety reasons. This includes infested and uninfested trees. Based on comments received, the largest snags will be retained, except where they present a hazard to operations. The stand would contain about 100-175 trees per acre and 80-100 square feet of basal area following the harvest activities except where beetle mortality has already reduced stocking to a lower number. Most tree removal would be accomplished by commercial thinning using a timber sale contract. Implementation of this project would produce approximately 700 CCF of commercial wood products, with a potential net value of \$25,000-\$30,000 (F-10, Economics Report). The resulting stand will be composed of trees of all sizes including larger diameter, >19" Douglas-fir trees with the majority of trees in the 9"-13" range. Many of the large dead trees have no commercial value and will be retained for their value to wildlife in sufficient numbers to meet Forest Plan standards (Project Record; F-4, F-12, F-13). Commercial thinning will create openings in the forest canopy, reduce moisture stress in remaining trees, reduce the attraction for bark beetles, allow increased shrub, forb and understory tree development

and create stand conditions similar to what would be expected had fires not been suppressed for over seven decades.

Fuels created through the thinning treatment will be piled at landings and burned in the winter.

Existing roads and trails will be used for access to the extent possible. About ¼ to ½ mile of temporary road will be needed to access landing areas. Locating some landing areas away from the main road will reduce the visual impact of the proposed treatments.

These activities may occur at any time during the calendar year when conditions are suitable. Operations would be conducted to minimize any potential resource damage (i.e. mechanical operations conducted with appropriate soil moistures, dry or frozen).

This project was analyzed by resource specialists to determine what, if any, environmental effects could occur as a result of the implementation of this project. A Biological Evaluation has been completed for Threatened and Endangered species as well as Sensitive and Management Indicator Species. Please see section V below for the findings of these assessments.

Assessment, via the Lewis and Clark National Forest geographic information system, and field investigation of potential habitat and presence of sensitive plant species, failed to reveal the presence of any sensitive plant species or habitat in the areas with potential ground disturbance. As a result, no impact is expected from the proposed harvest activities. The proposed activities at all sites would have no direct, indirect, or cumulative effect on the viability of sensitive plant populations or their habitat (Project Record; F-1).

Archaeological surveys sampled the area proposed for activities. Following adjustment of treatment boundaries, no sites were identified in project impact areas. Fieldwork complies with section 106 of the National Historic Preservation Act (NHPA) and the Programmatic Agreement (PA) between Region One of the Forest Service and the Montana State Historic Preservation Office (Project Record; F-9).

I have decided to implement the proposed action because it provides for potential reductions in insect-induced tree mortality by reducing competition between trees and restores late-seral, open forest structure while minimizing the potential for adverse environmental impacts. Treatments of this scale have been implemented in the past on the Musselshell Ranger District and, based on monitoring, have yielded desired results (Project Record G-8, G-11).

#### **IV. SCOPING AND ISSUES**

The project was presented to the public through the Lewis and Clark National Forest Schedule of Proposed Actions, October 2004. A scoping letter inviting interested parties to be involved in this project, as well as a project proposal was sent to 42 individuals and organizations on November 30, 2004. This included state, local and tribal governments and environmental organizations. An additional letter was sent to 5 permitted cabin

owners in the project area. A 30-day comment period ending December 30, 2004, was provided. Two environmental groups responded with one letter and a third response was received from Montana Fish Wildlife and Parks. Comments contained in these letters and how/where these comments are addressed is summarized in a table in the project record located at Musselshell Ranger District. Issues identified through scoping include old-growth retention, effects to northern goshawk, soil quality and habitat fragmentation. Based on comments received and the potential for effects to water quality and cultural resources, proposed treatment Unit 2 was dropped. Other comments were either of a general nature or were resources not affected by this project such as effects to fisheries or travel planning issues.

Notice and comment was provided for a draft Decision Memo (DM). A 30-day public comment period was initiated with a legal ad in the Great Falls Tribune, the newspaper of record. Notice was also provided to local media sources such as the radio, television stations, and local community weekly newspapers. Comments were received from two organizations opposing the project. Comments were centered on elk security, old growth retention, snag retention and distribution and northern goshawk habitat. These questions and comments were addressed in the Biological Evaluation, Biological Assessment and old growth report contained in the project file, and in cover letters for this decision. Comments in support of the decision were also received. Montana Fish Wildlife and Parks provided recommendations and mitigation measures.

## **V. REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION**

It is my determination that this action may be categorically excluded from documentation in an environmental impact statement or environmental assessment as it is within section 31.2 of the USDA Policies and Procedures Handbook (FSH 1909.15-2004-3, 31.2, category 12) which includes, “*Harvest of live trees not to exceed 70 acres, requiring no more than ½ mile of temporary road construction*” and (category 13) which includes, “*Salvage of dead and or dying trees not to exceed 250 acres, requiring no more than ½ mile of temporary road construction*”.

The proposed action may include incidental removal of live or dead trees for landings skid trails, and road clearing. This project will not exceed 70 acres of harvest and will not involve the construction of new permanent roads or other infrastructure. As summarized below, no extraordinary circumstances related to the proposed action exist.

- a. **Federally listed Threatened and endangered species or their critical habitat. No Effect** on Canada Lynx. Northern Rockies Lynx Management direction was followed. Informal consultation with U.S. Fish and Wildlife Service occurred. U.S. Fish and Wildlife Service indicated no formal consultation was needed. The project area is considered unoccupied, secondary habitat and is not near any linkage area (Project Record; E-2).

**No Effect** on grizzly bear or gray wolf.

Analysis conducted for sensitive and management indicator species is contained in the Biological Evaluation (Project Record). No review by the U.S. Fish and Wildlife Service or concurrence is required for **No Effect** findings.

The proposed federal action will have **No Impact** on bald eagle, peregrine falcon, burrowing owl, flammulated owl, greater sage grouse harlequin duck, fisher, northern bog lemming, northern leopard frog, greater short-horned lizard, fluvial arctic grayling, or west-slope cutthroat trout.

The proposed action **May Impact Individuals or Habitat, but will not likely Contribute to a Trend Towards Federal Listing or Loss of Viability to a Population or Species** for the following: wolverine, Townsend's big eared bat, western toad, northern goshawk and black-backed woodpecker. Details are contained in the Biological Assessment and Biological Evaluation (Project Record F-4, F-5).

Management indicator species, in addition to those previously listed, were considered. They include: elk, mule deer, whitetail deer, black bear, bighorn sheep, mountain goat, mountain lion, blue grouse, beaver, bobcat, golden eagle, prairie falcon, northern three-toed woodpecker, brook and rainbow trout. Some short term effects may occur to some species due to temporary displacement, but there will be no negative, long-term effects due to there being no habitat found in the project area and/or due to the small spatial and temporal scale of the proposed action relative to habitat distribution of the species mentioned. A more detailed discussion of potential effects is contained in the Biological Assessment and Biological Evaluation (Project Record F-4, F-5).

- b. Floodplains, wetlands, municipal watersheds, or impaired watersheds.** None of the proposed actions on Forest System lands are within or will have an effect on flood plains, wetlands, municipal watersheds, or impaired watersheds. Documentation of specialist field reviews is contained in the Watershed Report (Project Record; F-3).
- c. Congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas.** The proposed action is not in nor will it have an effect on congressionally designated areas such as wilderness, wilderness study area, or National Recreation Area or in any area under consideration by Congress for wilderness designation.
- d. Inventoried Roadless Areas.** The proposed action is located in a roaded area and is not part of an inventoried roadless area. (Refer to the Lewis and Clark Forest Plan EIS Volume II appendices for details regarding the Forest's Inventoried Roadless Areas.)

e. **Research Natural Areas.** The proposed action is not located within nor will it have any effect on a Research Natural Area.

f. **American Indians and Alaska Native religious or cultural sites, archaeological sites, or historic properties or areas.**

The proposed action will not affect any Native American religious or cultural sites, archaeological sites, or historic properties or areas. The area was field reviewed in October 2004 by a Forest Service archaeologist. Cultural resources were located near a proposed treatment unit during the field investigation and the boundary was moved to exclude the site (Project Record; F-9).

**Other resource considerations**

**Steep slopes or highly erosive soils.** There will be no affect to steep slopes or highly erosive soils with the implementation of this project. A review of the Lewis and Clark Soil Resource Inventory, (H.D. Holdorf, 1981), shows that this activity would occur on landtypes 14E, 14K, 20A, 20F. Soils in these types have been field verified for each treatment area by a soil scientist. These landtypes are suited to the types of activities planned. The slope where the activity will occur is moderate (10-35%) and no equipment operation on steep slopes (>30%) would be included in this action (Soils Report; Project Record F-2).

**VI. COMPLIANCE WITH FOREST PLAN AND FINDINGS REQUIRED BY OTHER LAWS**

Consistency with Forest Plan

The proposed activity is consistent with the standards, goals, and objectives of MA B, described in the Lewis and Clark Forest Plan (USDA, 1986).

This project includes treatment of stands identified as old growth. The existing level of old growth in the commercial forest portion of compartment 633 is over 8.1% and will be at least 7.5% following treatment. The Forest Plan standard is 5% of the commercial forest land within a compartment (Project Record F-7, Old Growth Report). Forest-wide, old growth is estimated to be about 10% of the commercial forest. This includes old growth in areas not planned for timber harvest under the current Forest Plan.

Forest Plan Management Standard C-1 (5) requires greater than 30% effective hiding cover be retained by watershed or herd unit. Post-treatment conditions at the project (compartment) scale, retain over 70% cover and over 80% cover is retained on National Forest lands within the Game Management Unit (Project Record #F-4).

The Endangered Species Act

The District Wildlife Biologist evaluated the proposed action for compliance with the Endangered Species Act. The findings of this evaluation are disclosed in Section V above.

### The Clean Water Act and State Water Quality Standards

No Water Quality Limited Segments (WQLS) have been identified near the project area. The Forest Hydrologist has determined that this project complies with the clean water act and state water quality laws (Project Record F-3, Watershed Report).

### The National Historic Preservation Act (NHPA)

The implementation does include ground-disturbing activities associated with the harvest of timber. Based on field surveys, no impacts to cultural resources are expected. The proposed action would be consistent with Forest Plan direction and Section 106 of the NHPA.

### Environmental Justice

The proposed action has been assessed to determine whether it would disproportionately impact minority or low-income populations, in accordance with Executive Order 12898. No impacts to minority or low-income populations were identified during scoping or effects analysis.

### Native American Rights

Consultation with the Confederated Salish and Kootenai Tribes and other tribes potentially affected has been completed (mailing list, Project Record; B-1).

### Migratory Bird Treaty Act

I find that there are no known substantial losses of migratory bird habitat expected from the implementation of this proposal.

### Other Laws or Requirements

The proposed action is consistent with other Federal, State, and local laws related to the protection of the environment.

## **SPECIFIC DESIGN CRITERIA AND MITIGATION**

Design features are used to minimize the environmental impacts of the proposed actions. Included are regional and Lewis and Clark National Forest standards, guidelines and policies designed to address resource management concerns.

**Heritage Resources:** Cultural resource surveys revealed no sites in the proposed treatment areas. A site nearby has been excluded from the treatment area. The timber sale contract will contain provisions for avoidance and notification in the event that a site is discovered during harvest activities.

**Soils and Water:** Soil and water conservation practices, or best management practices (BMPs), would be applied to proposed harvest areas. A list of BMPs that apply to this project is contained in the Watershed Report, Appendix B (Project Record; F-3). Application of BMPs would follow the guidance in the Soil and Water Conservation Practices handbook (Forest Service Handbook 2509.22).

No harvest activity would occur within riparian habitat.

- In order to protect the soil resource, soil must be dry or winter logging with either frozen ground or snow-cover will be required.
- Utilize existing roads and landing areas where practical.
- Skid trail are to be approved in advance and spaced approximately 80' apart except where converging.
- Temporary roads will be restored to original contour with topsoil and woody debris replaced (if removed) and erosion control seeding following use.
- Landing areas will be rehabilitated following burning by mixing burned debris and surface soil and seeding to hasten recovery and reduce visual impact.

The proposed harvest areas have had no previous harvest activities other than personal use firewood cutting along Road #274. With application of BMPs, none of the treatment will exceed the Region 1 guideline of 15% detrimental soil disturbance. Additional documentation is contained in the Soil Report (Project Record; F-2).

**Wildlife:** Numbers of large diameter snags are increasing rapidly within the stands proposed for treatment and across the Forest. The proposed treatment is designed to reduce mortality while retaining large diameter snags and green trees for the future. If successful, the proposed treatment will result in a reduction in the **rate** of mortality and in numbers of dead trees. Snag density following harvest will exceed the Forest Plan standard of 135 snags larger than 10 inches DBH per 100 acres (USDA, 1986, 2-35). This is consistent with USDA Agriculture Handbook No. 553 upon which the standard is based. Estimated numbers of snags remaining following treatment is 2 per acre in unit 3 and about 9 per acre in unit 1 (Project Record; F12, F13). The largest (most preferred by wildlife) snags will be marked or otherwise designated to be retained for wildlife habitat. Mitigation for northern goshawk includes protection of nest sites, if one is found, through modifying treatment boundaries. Continued tree mortality has reduced the suitability of unit 1 as nesting habitat. Harvest will alter the structure of potential nesting habitat and may further reduce the suitability of these stands following treatment. Additional detail is included in the Biological Evaluation (Project Record; F-4).

**Noxious Weeds:** Noxious weeds are present along roads leading to the project area. The following measures would be used to minimize the spread of noxious weeds in the harvest units:

- All off-road logging equipment would be cleaned of dirt and plant parts and inspected by the Forest Service prior to entering the sale area.
- Herbicides will continue to be used in accordance with label restrictions as authorized under the Lewis & Clark Noxious Weed EIS.
- The Forest Service will continue to monitor/survey the project area for new weed establishment.
- Limit road blading/maintenance activities to areas where work is needed in order to control the amount of bare soil (seed bed) exposed.



**Monitoring:** The Lewis and Clark National Forest monitors Forest Plan implementation on a sample basis, Forest-wide, to evaluate the overall progress in implementing the Forest Plan, the assumptions on which the Forest Plan is based, and to provide a feedback loop for determining effectiveness of project and mitigation implementation. Forest Service representatives monitor harvest and fuel reduction operations to ensure compliance with specifications and proper application of Best Management Practices (BMPs). Monitoring of two specific projects of a similar nature on the Musselshell Ranger District, (2000-2001 Monitoring Report, Project Record; G-11), indicates that the BMPs were applied appropriately on these small projects and that no extraordinary circumstances were encountered with these actions. BMP monitoring of Roberts Sanitation Timber Sale conducted in October of 2004 indicated proper application of BMPs and no unanticipated effects to soil or water quality. Stand surveys in December of 2006 confirmed adequate retention of snags (Project Record; G-8).

## **VII. APPEAL RIGHTS AND IMPLEMENTATION**

This decision is subject to appeal pursuant to 36 CFR 215, as clarified in the court order dated October 19, 2005 by the U.S. District Court for the Eastern District of California in Case No. CIV F-03-6386JKS. A written appeal must be submitted within 45 days following the publication date of the legal notice of this decision in the Great Falls Tribune. It is the responsibility of the appellant to ensure their appeal is received in a timely manner. The publication date of the legal notice of the decision in the newspaper of record is the *exclusive* means for calculating the time to file an appeal. Appellants should not rely on date or timeframe information provided by any other source.

Paper appeals must be submitted to:

USDA Forest Service, Northern Region  
ATTN: Appeal Deciding Officer  
P.O. Box 7669  
Missoula, MT 59807

Or

USDA Forest Service, Northern Region  
ATTN: Appeal Deciding Officer  
200 East Broadway  
Missoula, MT 59802  
Office hours: 7:30 a.m. to 4:00 p.m.

Electronic appeals must be submitted to: [appeals-northern-regional-office@fs.fed.us](mailto:appeals-northern-regional-office@fs.fed.us)

In electronic appeals, the subject line should contain the name of the project being appealed. An automated response will confirm your electronic appeal has been received. Electronic appeals must be submitted in MS Word, Word Perfect, or Rich Text Format (RTF).

It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why my decision should be reversed. The appeal must be filed with the Appeal Deciding Officer in writing. At a minimum, the appeal must meet the content requirements of 36 CFR 215.14, and include the following information:

- The appellant's name and address, with a telephone number, if available;
- A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);
- When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request;
- The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
- The regulation under which the appeal is being filed, when there is an option to appeal under either 36 CFR 215 or 36 CFR 251, subpart C;
- Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
- Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
- Why the appellant believes the Responsible Official's decision failed to consider the substantive comments; and
- How the appellant believes the decision specifically violates law, regulation, or policy.

If an appeal is received on this project there may be informal resolution meetings and/or conference calls between the Responsible Official and the appellant. These discussions would take place within 15 days after the closing date for filing an appeal. All such meetings are open to the public. If you are interested in attending any informal resolution discussions, please contact the Responsible Official or monitor the following website for postings about current appeals in the Northern Region of the Forest Service: [http://www.fs.fed.us/r1/projects/appeal\\_index.shtml](http://www.fs.fed.us/r1/projects/appeal_index.shtml).”

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15<sup>th</sup> business day following the date of the last appeal disposition.

The responsible official is Douglas Dodge, Musselshell District Ranger, Box 1906, Harlowton, MT 59036, phone at 406-632-4391.

**VII. CONTACT PERSON**

Additional information concerning this project and the project file contents are available at the Musselshell Ranger District, Box 1906, Harlowton, MT 59036, phone (406) 632-4391. Questions regarding this decision should be sent to Steven J. Martin at the above address and phone number.

*Douglas Dodge*

*3/17/2008*

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DOUGLAS DODGE  
District Ranger

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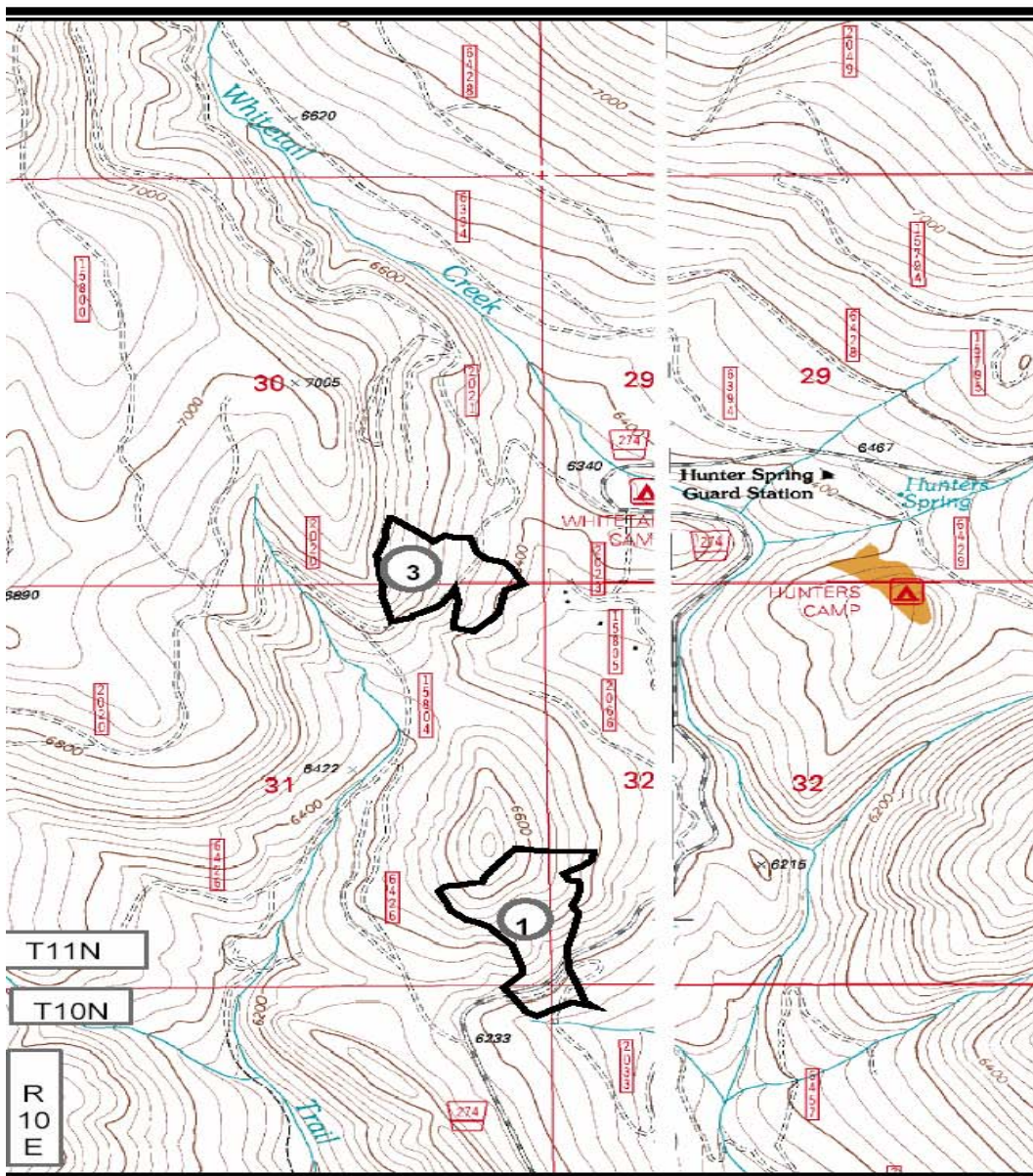
Date

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Lewis and Clark National Forest  
Musselshell Ranger District

**WHITETAIL SALVAGE SALE**

Project Map



## References

Holdorf, H.D. 1981. Soil resource inventory. Interim In-Service Rpt. Great Falls, MT: U.S. Department of Agriculture, Forest Service, Lewis and Clark National Forest.

Negron ET al.1999. Estimating Extent of Mortality Associated with the Douglas-fir Beetle in the Central and Northern Rockies. *in* Western Journal of Applied Forestry, Vol. 14, No.3, July 1999.

USDA. 1995. Biological Evaluation R2-95-02. Emergence and Over wintering Brood of Douglas-fir Beetle Six Years After The Clover Mist Fire On The Clarks Fork Ranger District, Shoshone National Forest, Wyoming.

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