BACKGROUND

On September 14, 2012, the Dugan fire started adjacent to the Ekalaka Hills land unit of the Custer National Forest. The winter of 2011/2012 was very dry without the typical June rains and persistent high temperatures throughout the summer, resulting in extremely dry fuel conditions.

The fire was contained on September 19 after burning 10,474 acres on Montana State, private, BLM and National Forest System lands. Fire affected a total of 6,569 acres of National Forest System lands.

The fire perimeter is currently in an Area Closure due to safety concerns with the large number of hazard trees adjacent to public roads and motorized trails. There is an immediate and long-term need to address safety concerns posed to the public and Forest Service personnel as a result of hazardous trees directly and indirectly killed or made unstable as a result of the Dugan Fire. There is also an immediate and long-term need to protect public improvements (cattleguards, culverts, fencing, and directional and informational signs, etc.), from damage caused by falling trees. The purpose for action is to protect public improvements and provide for the safety of the public and Forest Service personnel within the fire area within the foreseeable future, which is generally considered to be the next three to five years.

The Sioux Ranger District is proposing to dispose of hazard trees 150 feet from center line on either side of both roads and trails to provide for human health and safety. This will also help to create fuel breaks along all roads within the fire area to assist with future fire suppression. Hazard trees, that is, fire killed trees, trees that would imminently die, and/or trees made unstable as a result of the Dugan Fire, will be felled, skidded, decked and brush piled. Disposal of these hazard trees includes but is not limited to selling the decks, burning the decks and piles, selling as fire wood, or free use.

In addition, the Forest Service proposes to dispose of other trees that die as a result of the Dugan Fire over the next five years. The fire precipitated the mortality of trees either directly or indirectly, increasing the probability of them dying and making them more susceptible to insect and disease. Forest Service
experience with these kinds of events shows that trees will die from the effects of the fire, heat around the base of the tree, scorched crowns and/or a combination of these injuries, for several years after the event. There is no road construction proposed, existing roads and trails will be used to conduct the proposal.

**DECISION**

To provide for human health and safety, protect National Forest infrastructure (roads, fences, cattleguards, etc), manage the residual forest stands, and provide some fuels abatement, I have decided to:

- Remove hazard trees determined to pose a risk along several system roads and trails on the Sioux Ranger Districts as displayed in the table and map below.
- The criteria detailed in Appendix A will be used to help determine trees that are a hazard and removed.
- Remove hazard trees within approximately 150 feet along each side of identified roads and trails. The corridor would vary, depending on the presence of trees, the slope and height of the trees, from 0 up to about 150 feet along both sides of the roadways from centerline. There are several areas along these roads where there are no trees because it is non-forested, and therefore, no trees will be cut and removed.
- Hazard trees will be felled, skidded, decked and slash and brush will be piled and burned where topography allows.
- Existing roads and trails will be used for activities; no permanent or temporary roads will be constructed.
- Trees that do not pose a safety hazard to the public would be retained, and any areas along the roadways that do not pose a safety hazard (examples include: no dead, dying, or structurally unsound trees, open areas, small trees that are not within falling distance of roadway) would be excluded from activity.
- In areas with hazard trees that cannot be removed due to resource concerns, the trees would felled and left on-site.
- No trees would be removed under this decision for any hazard trees currently within the sale units of the Ridge Timber sale. Some of the sale units also border roads within the project area.

After careful consideration of the analysis conducted by resource specialists (summarized in this Decision Memo), I have determined that portions of the following roads and trails as identified in Table 1 and on the map below would be treated under this decision.

The selection of these roads was first based on the Dugan Fire perimeter and then pre-NEPA interdisciplinary input that included the local knowledge about presence of hazard trees on roads and trails, slope, size and number of hazard trees. No unauthorized routes are included in this decision.

**Table 1. Portions of roads and motorized trails to be treated.**

<table>
<thead>
<tr>
<th>Forest Service Road Number</th>
<th>Approximate Miles</th>
<th>Approximate Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>3814D</td>
<td>~1.25</td>
<td>46</td>
</tr>
<tr>
<td>3814B</td>
<td>~0.20</td>
<td>8</td>
</tr>
<tr>
<td>3814</td>
<td>~0.75</td>
<td>28</td>
</tr>
</tbody>
</table>
Other features associated with this decision include:

- No ground-based mechanized harvest activities will occur within 50 feet of perennial streams.
- Unless structurally weakened, live, healthy, non-hazard trees will generally be retained. Contracts and permits require protection of the residual trees. Incidental removal of live/non-hazard trees for landings and/or some skid trails may be necessary.
- Equipment, materials, and vehicles shall be visually inspected by the Contracting Officer’s Representative (COR), or other designated Forest Service official, and certified in writing by the Contractor to be reasonably clean and weed free before entering NFS lands. Cleaning shall consist of the removal all dirt, grease, debris, and materials that may harbor noxious weeds and their seeds. Cleaning shall occur off the project site.
- Noxious weeds will be controlled following procedures in the Weed Management FEIS for the Custer National Forest Record of Decision (2006).
- Log landings will be located in noxious weed free areas, to the extent possible and practicable.
- If seeding is required, the Sioux Ranger District Seed Mix will be used [see Appendix C]. All seed and mulch material will be certified noxious weed seed free.
- If currently unknown cultural resources are discovered during project implementation, operations affecting that discovery will be suspended until the site is evaluated by a Forest archaeologist. Identified sites will be avoided, if feasible, but if sites cannot be avoided, site-specific mitigation will be developed to ensure sites are not adversely impacted. Site mitigation will be developed in consultation with the State Historic Preservation Office prior to project implementation. Site specific mitigations and inventories have been designed to meet standards and guidelines detailed in the All sites will be avoided or treated per the Site Inventory Strategy for “Wildland Urban Interface and Large Scale Hazardous Fuels Reduction” in accordance with the South Dakota State Historic Preservation Office Programmatic Agreement.
The District generally sees the most amount of traffic in the spring and fall seasons, coinciding with spring and fall hunting seasons. During harvest, logging, and/or commercial operations, including log haul, traffic delays can be expected but should be minimal (usually 15 minutes or less). Generally, the amount of traffic on the District does not warrant a road closure, or curtailment of operations on the weekends. Contractors and permittees are already required to provide a traffic plan and post traffic signs and utilize flag-people if necessary. The Forest Service will monitor operations and traffic to determine the appropriate course of action.


Soil and Water Conservation Practices as detailed in Forest Service Handbook (FSH) 2509.22 R1 will be implemented regardless of whether the work is done under contract, permit, or by Forest Service personnel. A list of potentially applicable practices is provided in Appendix E, the details of which are in FSH 2509.22 R1. Examples of these practices include but are not limited to:
Back-blading berms, recontouring/outsloping landings and skid trails for drainage and dispersal of water, ripping or scarifying compacted landings, installing water bars, seeding with native seed mixes, mulching, and spreading slash.

- Construct compact piles that are free of dirt and rock debris and away from the leave trees to prevent damage during burning of piles. Stumps will be cut as low as possible along all roads.
- Given this is a post-fire activity, where feasible/possible/practicable, mimic natural patterns in treatment design and operations, especially in the elements of form and line.
- Given this is a post-fire activity, where feasible/possible/practicable, create natural appearing, meandering edges, and tie into existing meadows and clearings. Retain smaller, low-branched trees along the back edge of the unit to minimize a "bole-edge effect".
- If new (previously unknown), active raptor nests are discovered prior to or during the implementation of the proposed action, activities within 100 yards of the nest will halt and the Forest Service notified. For northern goshawk nests, a 40-acre no activity buffer will be established around the nest to conserve the nest area, and no activities will occur within this 40-acre buffer until after August 15.
- Human Health and Safety

Erionite has been detected in road surfacing materials from a Trace (0.25% by volume) to 1% on road #3812 and #3104. No bedrock or soil samples have been taken.

1. Potential for erionite exposure and human health and safety effects due to either inhalation or ingestion of erionite may increase as a result of the increase in site disturbance. Aggressive reclamation and vegetative cover establishment is essential in order to reduce the risk of exposure to individuals using the area.

Table 2. Specific Geographical Design Features

<table>
<thead>
<tr>
<th>Construction / Reconstruction</th>
<th>Require wetting of working areas to reduce dust generation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consider use of respiration mask for construction employees, inspectors, etc.</td>
</tr>
<tr>
<td>Operation / Maintenance</td>
<td>Require wetting of working areas to reduce dust generation.</td>
</tr>
<tr>
<td></td>
<td>Require use of non-erionite containing aggregate and construction materials.</td>
</tr>
<tr>
<td></td>
<td>Consider application of magnesium chloride as a dust suppressant on access roads post construction period.</td>
</tr>
</tbody>
</table>

(Reference –2009 Minerals and Geology Technical Specialist Report)

SCOPING AND PUBLIC INVOLVEMENT

The proposal was provided to the public and other agencies for comment during the concurrent scoping period and notice, comment and appeal period which was from October 4 to November 5, 2012. A legal notice announcing the opportunity to submit comments, as well as providing notice of the appeal process was published in the Billings Gazette on October 4, 2012. The proposal was listed in the Custer National Forest’s Schedule of Proposed Actions (SOPA) on November 18, 2012. We provided the public with the opportunity to comment to allow the responsible official to consider public comments prior to making a decision. A legal notice of comment was published in the Billings Gazette on October 4, 2012. No comments were received.

The District Ranger spoke with the Carter County Commissioners on Friday, November 30, 2012. He discussed the Burned Area Emergency Rehabilitation (BAER) actions that are on-going or planned for the spring 2013. He also talked to them about doing salvage along the roads and Forest Service intent to do
the same within the Ridge Timber Sale area. He mentioned that the purchaser had turned the timber sale back to the government because of the damage from the fire, but the commissioners were glad the Forest Service was still planning to do the salvage work in the harvest units and did not have any objections to it.

**RATIONALE FOR THE DECISION**

I decided to remove hazard trees as described above because it meets Forest Plan direction and the purpose and need as follows:

- My decision maintains human health and safety by mitigating the hazardous conditions created by dead, dying, and structurally weakened trees created by the Dugan Fire.
- This proposal is consistent with the Forest Plan goals, objectives and standards for the Custer National Forest.
- My decision was based on the Probability of Fire Induced Mortality for Ponderosa Pine (See Appendix A).

**FINDINGS AND REASONS FOR CATEGORICALLY EXCLUDING THIS ACTION**

The Council on Environmental Quality (CEQ) regulations at 40 CFR 1507.3 provide that agencies may adopt categories of actions that do not normally have significant impacts on the human environment and that do not require preparation of an environmental assessment (EA) or environmental impact statement (EIS). Forest Service actions categorically excluded from documentation in an environmental impact statement or an environmental assessment are found at 36 CFR 220.6. A proposed action may be categorically excluded from further analysis and documentation in an EIS or EA only if there are no extraordinary circumstances related to the proposed action and if: (1) The proposed action is within one of the categories established by the Secretary at 7 CFR part 1b.3, or (2) The proposed action is within a category listed in §220.6(d) and (e). Below are the resource conditions that were considered in determining whether extraordinary circumstances related to this proposed action warrant further analysis and documentation in an EA or an EIS. The mere presence of one or more of these resource conditions does not preclude use of a categorical exclusion (CE). It is the existence of a cause-effect relationship between a proposed action and the potential effect on these resource conditions, and if such a relationship exists, the degree of the potential effect of a proposed action on these resource conditions that determines whether extraordinary circumstances exist.

By definition, categorical exclusions do not individually or cumulatively have significant effects on the human environment (40 CFR 1508.4). Analyses considered direct and indirect effects from the proposed action coupled with past, present, and reasonably foreseeable actions. The interdisciplinary team analyzed cumulative effects at differing spatial scales (e.g. project area, watershed, landscape, Forest-wide and regionally) that vary depending upon the specific resource. No significant effects, nor uncertainty over the significance of effects, were identified in any of the resource effects analysis that would lead to the need for the preparation of an Environmental Assessment or Environmental Impact Statement.

This proposal is consistent with the Forest Plan goals, objectives and standards for the Custer National Forest. Based on the environmental analysis of this project and requirements of 36 CFR 220.6, these are routine actions that fit within three categories listed in 36 CFR 220.6. Two categories are found at 36 CFR 220.6(f), Category 4 which states: “Repair and maintenance of roads, trails and landline boundaries; and, Category 5 which states: “Repair and maintenance of recreation sites and facilities.” The third category is at 36 CFR 220.6(e)(13) - Category 13 which states: “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 trees or dead trees for landings, skid trails, and road clearing.

- I find the effects of the proposed activities will not result in uncertain or significant direct, indirect, or
  cumulative effects; and,
- I find that with implementation of the planned mitigation measures and practices that the proposal is
  consistent with the Forest Plan. This includes consistency with the Forest-wide standards for
development and use of minerals materials, as well as visual quality objectives within the Foreground
Retention zone, as well as consistency with Forest-management standards in Management Areas X and
P
- I find that the effects of the proposed action will not have a cause-effect relationship or degree of
  potential effect that results in the existence of extraordinary circumstances or significant effects that
  warrant further analysis and documentation in an EA or an EIS (40 CFR 1508.27; 36 CFR 220.6(a).

Based on past experience and site-specific environmental analysis using the best available science,
the record of analysis as summarized in this decision memo shows that the context and intensity of
effects on resource conditions are minor to non-existent and do not constitute any extraordinary
circumstances. Based on these findings, I have determined that a categorical exclusion is appropriate
in this situation because the action fits within the category described above and there are no
extraordinary circumstances present. The proposal is an appropriate use of the National Forest. The
following resource conditions were considered in determining whether there was the potential for
extraordinary circumstances (36 CFR 220.6(b):

1. **Federally listed Threatened and Endangered species or their designated Critical Habitat or species proposed**
   **for Federal listing, proposed critical habitat, or Forest Service Sensitive Species** – Based on input provided by
   the District Wildlife Biologist, significant impacts to Threatened, Endangered, and Sensitive Species or their
   habitat are not anticipated as a result of this Decision. Based on input from the District Wildlife biologist (see
   project record), I find that the potential degree of effects of the decision will not result in extraordinary
   circumstances associated with threatened and endangered, Forest Service sensitive, or proposed species or
   their habitats. These conclusions are documented in a Biological Assessment and Biological Evaluation, which is
   contained in the project record (12/06/2012).

2. **Flood Plains, Wetlands, or Municipal Watershed** – Because no activities will occur in a flood plain, wetland, or
   municipal watershed, I find that the degree of effects of my Decision will not result in extraordinary
   circumstances associated with Flood Plains, Wetlands, or Municipal watersheds.

3. **Congressionally Designated Areas, such as Wilderness, Wilderness Study Areas, or National Recreation Areas**
   – No Wilderness, or Wilderness Study Areas, are found on the Sioux Ranger District. Two National Natural
   Landmarks are found on the Sioux Ranger District, one is the Castles in the Slim Buttes land unit in Harding
   County, South Dakota; the other is Capitol Rock in the Long Pines land unit, Carter County, Montana. No work is
   proposed to be done within the boundaries of these two National Natural Landmarks under this decision. I find
   that my Decision will not result in extraordinary circumstances associated in these areas.

4. **Inventoried Roadless Areas or potential wilderness area** – Road maintenances and tree thinning activities
   authorized by my Decision will not occur in any Inventoried Roadless Area (IRA) as identified in Forest Plan
   Appendix C or in Wilderness (MA – I) or a recommended wilderness area (MA- H). I find that the degree of
   effects of my Decision will not result in extraordinary circumstances associated with these areas.

5. **Research Natural Areas** - There is one research natural area (RNA) and one candidate RNA on the Sioux Ranger
District. One RNA is located in the Long Pines land unit, Carter County, Montana; the other candidate RNA is located in Deer Draw in the southern end of the Slim Buttes. No work is proposed to be done within either of the Research Natural Area in this project. I find that the degree of effects of my Decision will not result in extraordinary circumstances associated with the Research Natural Areas.

6. **American Indian and Alaska Native religious or Cultural Sites** – A heritage review was conducted for the proposal. No impacts to American Indian and Alaska Native religious or Cultural resources are anticipated. No extraordinary circumstances associated with these resource values are anticipated from my Decision as documented in the Heritage Resource Review (The Cultural Resource Report is contained in the Project Record).

7. **Archaeological Sites, or Historic Properties or Areas** – A heritage review was conducted for the proposal. All sites will be avoided or treated per the Site Inventory Strategy for “Wildland Urban Interface and Large Scale Hazardous Fuels Reduction” in accordance with the South Dakota State Historic Preservation Office Programmatic Agreement. No impacts to significant Archaeological Sites, or Historic Properties or Areas are predicted. No extraordinary circumstances associated with archaeological sites or historic properties or areas are anticipated from my Decision as documented in the Heritage Resource Review (The Cultural Resource Report is contained in the Project Record).

**FINDINGS REQUIRED BY OTHER LAWS, REGULATIONS, AND POLICIES**

I find this decision is consistent with the National Forest Management Act, Clean Air Act, Endangered Species Act, Clean Water Act, Tribal Rights, National Historic Preservation Act and the National Environmental Policy Act as follows.

**National Forest Management Act of 1976 and the Custer Forest Plan**

I find that my Decision is consistent with the 1986 Custer National Forest Land and Resource Management Plan (Forest Plan, USDA 1986) as required by the National Forest Management Act.

Forest-wide standards provide guidance for this project, and are found on pages 4, 5, 13, and 37 in the Forest Plan. These standards are summarized, in relevant part below. Holiday Campground is within Management Area F, and Whitetail Cabin is in Management Area P, as identified in the Forest Plan and Forest Plan Management Area maps. These management areas and the Forest Plan goals and objectives for these management areas are briefly summarized below in relevant part, but may be found in detail in the Forest Plan.

**Forest-wide Goals, Objectives, and Standards**

This proposal is consistent with the Forest Plan goals, objectives and standards for the Custer National Forest. There are no Forest Plan amendments proposed or required to implement the proposal. Forest-wide goals, objectives and management standards provide broad direction to manage and/or improve forest resources and other multiple uses occurring on the national forest.

**Forest-wide goals appropriate to the project include, but are not limited to:**

The goal of recreation management is to provide a broad spectrum of recreation experience opportunities for the benefit and enjoyment of the public, with due consideration for other forest uses and resources. USDA 1986, p. 4.
Forest-wide objectives appropriate to the project include, but are not limited to:

Management of the recreation resource is moderately intensive and developed recreation sites will be operated at a full service level. USDA 1986, p. 4.

The Forest transportation system required by this plan will be constructed and managed to minimize adverse impacts on the resources, while providing access to public lands for the public and for the management of the resources. USDA 1986, p. 5.

Forest-wide management standards appropriate to the project include, but are not limited to:

Developed recreation management direction is shown in Management Area F. USDA 1986, p. 13.

The Forest Transportation System shall be managed to provide for administration and protection of the resources and the needs, health, and safety of the public. USDA 1986, p. 37.

Road management programs will include maintenance, signing, and traffic control. Traffic control includes the issuing of orders which close or restrict the use of any Forest development road or trail. Reasons for closures include, but are not limited to, game management, fire danger, public health or safety, and resource damage. USDA 1986, p. 37.

Management Areas

Roads and trails within the project area lie within Management Areas B, D, F and G. Management area standards are detailed in the Forest Plan on pages 45, 53, 61 and 65. Excerpts of applicable management area direction include, but are not limited, to the following: Understanding the foregoing, the proposed activities are consistent with the Forest Plan.

Management Area B Goals and Standards

Goals
To provide for the continuation of livestock grazing, implementation of intensive range management systems and the facilitation of minerals and energy development with consideration of other resource needs. In areas not considered key for wildlife, adverse impacts to the wildlife habitat will be mitigated where feasible, but not to the exclusion of range and mineral/energy management and development activities. In key wildlife areas, the habitat may not be adversely impacted from development activities. If the responsible official determines that resource conflicts cannot be adequately mitigated, he/she will resolve the conflicts in accordance with management area goals and if necessary in consultation with affected parties.

Standards
Visual quality objectives will include Retention, Partial Retention and Modification and management activities will be designed and implemented to blend with the natural landscape. The visual quality objective as assigned to the areas or as determined through the environmental analysis will be met by the development activities, subject to valid existing rights. p. 45.
Emphasis will be to maintain existing fish and wildlife habitats. These habitats will be improved where improvement would be consistent with other resource needs. Established uses will have priority on existing livestock ponds where a fishery. p. 45.

Forested areas will be managed to perpetuate or enhance livestock forage and wildlife habitat values. Management activities may include removal of wood products such as saw-logs, posts and fuelwood or transplant materials. Wildlife and range resources will be protected or enhanced. p. 46

Silvicultural systems may include either even aged or uneven aged systems. Regeneration systems may be appropriately applied to meet management area goals. p. 46

Planned ignitions (Prescribed Fire) may be used for range and wildlife enhancement, fuels and debris reduction. Unplanned ignitions will not be used as a management tool on the National Grasslands, but may be used on National Forest Districts to enhance range and wildlife values and restore the natural fire frequency. p. 47.

Management Area D Goals and Standards

Goals
To maintain or improve the long-term diversity and quality of habitat for the selected species identified by Ranger District as well as accommodating other resource management activities such as timber harvest, livestock grazing, and oil and gas development. Some short-term habitat impacts may be necessary to achieve long-term wildlife goals. This goal will be achieved through direct wildlife habitat improvement, as well as selecting, scheduling and implementation of cultural practices associated with other multi-resource management activities. Efforts will be made to avoid or mitigate resource conflicts. If the responsible official determines that conflicts cannot be adequately mitigated, she/he will resolve the conflict in accordance with the management area goal and, if necessary, in consultation with affected parties.

Standards
The travel plan for these areas will provide reasonable access for public recreation, hunting, and range maintenance and administration, but will confine motorized vehicles to specific roads and trails during critical periods to protect wildlife and other resources.

Visual quality objectives will include Retention, Partial Retention and Modification and management activities will be designed and implemented to blend with the natural landscape.

This management area contains lands considered suitable for timber management. Timber management activities will be guided by silvicultural prescriptions based upon stand examinations and wildlife analysis. Silvicultural prescriptions will identify timber treatments that will perpetuate or improve key wildlife habitat and livestock forage. Silvicultural prescriptions may include either even aged or uneven aged systems. Productive forest lands within this area are suitable for timber production.

Knutson-Vandenberg funds collected from sale of forest products will first be programmed for regeneration as required by law. Other wildlife habitat improvement treatments will receive priority for funding after regeneration concerns are met.
Access roads needed to meet legal obligations will be provided as required, but roads will be routed to minimize loss of wildlife habitat. Roads will not be constructed on slopes of 40 percent or greater. Exceptions may be made for short distances, i.e. one-quarter mile or less where this will minimize the total impacts to the area.

Roads programmed for construction or reconstruction in the Capital Investment program will be scheduled to provide flexibility in the use of timber harvest as a tool for wildlife habitat improvement.

Existing county and Forest Service arterial and collector roads will be maintained and reconstructed/upgraded as necessary. This may include road realignment/relocation where necessary to meet public safety requirements and/or reduce erosion problems associated with these roads.

Planned ignitions may be used for range improvement and wildlife habitat, timber stand maintenance, fuels reduction, sanitation, main raining vegetation, and associated wildlife habitat dependent on periodic fire.

Management Area G Goals and Standards

Goals

To manage these areas for the maintenance and improvement of a healthy diverse forest and as a source of wood products for dependent local markets. Silvicultural systems will consider other resource needs such as wildlife habitat, visual impacts, and livestock management. Efforts will be made to avoid or mitigate resource conflicts. If the responsible official determines that conflicts cannot be adequately mitigated, she/he will resolve the conflict in accordance with the management area goal and, if necessary, in consultation with affected parties.

Standards

Visual Quality Objectives will not exceed Modification. Areas of Retention and Partial Retention will be common.

Timber harvest proposals will analyze wildlife and fish values, and potential impacts, including but not limited to; forage/cover ratio (pre-and-post sale), snag densities, road management opportunities, winter range requirements, roost areas, streambank/shoreline vegetation, and siltation potential. Timber management practices will be assessed particularly as they affect diversity of vegetation. Mitigation measures will be identified and incorporated to the extent possible in that the goal of the Management Area is achieved.

Unique wildlife features such as elk wallows and nesting sites for key birds will be protected.

Cavity nesting habitat will be maintained by retaining two snags per acre, where they exist.

Even-aged management is the preferred silvicultural system but uneven-aged management may be used where such methods are more appropriate for meeting ecological requirements and management of the species. Clearcutting may be used where it is the optimum regeneration method and meets the objectives for the area. p. 65.
Old growth will be managed to at least meet the habitat requirements for a minimum viable population of old growth dependent wildlife species. p. 65.

Seasons of operations and contract period may be adjusted on a case-by-case basis to protect wildlife and soil and water values and reduce conflicts with recreation traffic. p. 65.

Silvicultural systems that favor natural regeneration will be emphasized. The objective will be to regenerate harvested areas within five years. p. 65.

Insect and disease infested timber will be treated with an appropriate silvicultural system in coordination with other resource values. p. 65.

Pre-commercial thinning will be utilized in a cost-effective manner on areas with high site index. Prescribed fire, as well as other management tools may be used to thin stands. p. 65.

Over stocked stands will be evaluated for wildlife needs prior to treatment. p. 65.

Roads within this management area are generally multiple use reads, exceptions may be some of those constructed for minerals development. Roads will not be constructed on slopes of 40 percent or greater. Exceptions may be made for short distances, i.e. one quarter mile or less, where this will minimize the total impacts to the area. p. 65

Road management will be determined by the long-term needs of mineral and timber management. Locations will serve long-term use for all resources. Use and travel restrictions will be considered to benefit or reduce adverse impacts to wildlife. The roads will be a part of the Forest Transportation System and may be closed when not needed. p. 65.

Planned ignitions (Prescribed Fire) may be used for timber stand maintenance and thinning, slash disposal, natural fuel reduction, wildlife habitat maintenance and enhancement with an approved prescribed fire plan. p. 65.

Other Laws or Requirements

Endangered Species Act of 1973

Pursuant to the Endangered Species Act (ESA), Forest Service Manual 2670, and Forest Service Region 1 Policy, this proposed action was analyzed for potential effects to Threatened, Endangered, and Sensitive wildlife and plant species. Contained within the Project Record is a Biological Evaluation for such species that are found or may be potentially found within the project area. The Biological Evaluation discloses that implementation of this Decision will have no adverse effects to these Species.

Soil Resource

The proposed hazard tree abatement and removal at Holiday Campground and Whitetail Cabin have no associated soils or soil quality concerns; as long as standard Best Management Practices (BMPs) are employed and successful reclamation is achieved at the close of the project. Standard erosion control practices would also be implemented.
I find that this Decision is consistent with all other applicable Federal, State, and local laws or requirements.

**IMPLEMENTATION DATE, ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES**

In a legal notice published in the Billings Gazette on October 4, 2012, District Ranger Kurt Hansen provided a 30 day opportunity to comment on this proposal. No comments expressing concern or only supportive comments were received; therefore this decision is not subject to appeal pursuant to 36 CFR 215.12. Implementation may begin immediately after publication of the legal notice of the decision in the paper of record, the Billings Gazette.

**CONTACT PERSON**

For additional information regarding this decision, contact Kurt Hansen, District Ranger, Sioux Ranger District, 101 SE 1st Street, Camp Crook, South Dakota, 57724. A Project Record containing additional information supporting the environmental analysis and Findings in this Decision Memo has been prepared and is available for public review at the Sioux Ranger District. Interested individuals may review the Project Record by scheduling a visit in advance.

______________________________  __________________
KURT HANSEN            Date

District Ranger
I find that this Decision is consistent with all other applicable Federal, State, and local laws or requirements.

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[Signature]

KURT HANSEN

District Ranger

\[12-8-2012\] Date
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Recommendation for hazard abatement of direct or indirect fire killed trees –

1. Remove all trees that have exposed roots exhibiting fire damage and any trees with fire damage (fire consumption) to portions of the bole that make the tree unstable.
2. Remove all trees that exhibit no green crown and do not have intact, live buds.
3. Remove all trees that have a > 15° degree lean that have indication of soil movement.
4. Remove all dead trees that are hung up in live trees since fire.
5. Consider removal of all trees with greater than 50% crown scorch. Use the general rules for determining mortality above and Table 2 for assisting in the final determination for removal. Note: The blue shaded area in Table 2 displays a probability of mortality ≥ 50% when considering crown scorch and DBH. **Considering safety I would recommend all trees meeting characteristics in the blue shaded areas be removed.** Additive effects of things such as duration of fire on surface around tree and cambium damage will likely increase the probability of mortality.
6. Remove all trees that have been tested for cambium condition at the trunk and root collar that have 3 or 4 sites out of 4 indicating dead cambium.
Fire effects.

- Low-intensity fires readily kill seedlings less than 12 inches in height, while larger seedlings, saplings, and pole-sized trees may be damaged but not killed, especially if the burn occurred during the dormant season. Trees larger than pole-size are quite resistant to low-intensity burns.

- Cambial damage is most likely to occur when high-intensity fires are maintained by deep duff layer surrounding bases of trees.

- Extensive foliar scorching can occur with only light damage occurring to buds, with some trees able to withstand up to 90 percent crown scorch as long as 50 percent of buds and twigs survive.

- Trees producing heavy cone crops are more prone to mortality because nutrients are diverted to cone development and maturation rather than to recovery.

- Damage to cambium is the more important factor in small-diameter classes of ponderosa pine while crown damage is more important in pole-sized and larger trees.

- Cambium must be completely girdled to kill the tree and trees that are partially girdled have a good chance of survival.

- Bark charring is a poor indicator of cambium damage in ponderosa pine.

#### Table 2: Probability of fire-induced mortality for ponderosa pine

<table>
<thead>
<tr>
<th>DBH</th>
<th>10</th>
<th>20</th>
<th>30</th>
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<td>67%</td>
<td>85%</td>
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</table>

Sources/Notes: Table developed by David C. Powell, Forest Silviculturist, Umpqua National Forest, Pendleton, OR. These values are probabilities, expressed as a percent, of ponderosa pine of various diameters being killed by fire. They are based on an equation from Rainhart and Ryan (1966) and a bark thickness factor from Keane et al. (1999). See Steele et al. (1996) for a description of the calculation methodology. White values on a blue background denote combinations of crown scorch and DBH with a mortality probability of 50%

Cambium condition.

- Trunk, roots and root collar:
  - 0-4 sites are pale, green and moist – alive.
  - 2 sites are brown and dry – marginal condition.
  - 3-4 sites are brown and dry – dead.

Postfire response.

- Post-fire regeneration is exclusively through seed. Even though trees with scorchd foliage may not live long, they serve as important seed sources.

- Fire creates a favorable seedbed for this species by removing competing vegetation and exposing bare mineral soil. Seeding establishment is best when a good seed crop coincides with above average rainfall.

- Post-fire release of nutrients, primarily nitrogen, contributes to successful regeneration.
APPENDIX B

Forest Service policy at FSM 2080, Supplement No.: R1 2000-2001-1 outlines Best Management Practices to be used as protection measures to various authorized activities on National Forest System lands in the Northern Region. All of the following weeds BMPs apply where appropriate.

2081 – MANAGEMENT OF NOXIOUS WEEDS.

2081.2 - Prevention and Control Measures.

1. Roads.
   a. Required Objectives and Associated Practices.
      (1) Incorporate weed prevention into road layout, design, and alternative evaluation. Environmental analysis for road construction and reconstruction will include weed risk assessment.
      (2) Remove the seed source that could be picked up by passing vehicles and limit seed transport in new and reconstruction areas.
         (a) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.
         (b) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders as determined by the Forest/District Weed Specialist. Reference Contract Provision C/CT 6.626.
      (3) Re-establish vegetation on bare ground due to construction and reconstruction activity to minimize weed spread.
         (a) Revegetate all disturbed soil, except the travel way on surfaced roads, in a manner that optimizes plant establishment for that specific site, unless ongoing disturbance at the site will prevent weed establishment. Use native material where appropriate and available. Use a seed mix that includes fast, early season species to provide quick, dense revegetation. To avoid weed contaminated seed, each lot must be tested by a certified seed laboratory against the all State noxious weed lists and documentation of the seed inspection test provided.
         (b) Use local seeding guidelines for detailed procedures and appropriate mixes. Use native material where appropriate and available. Revegetation may include planting, seeding, fertilization, and weed-free mulching as indicated by local prescriptions.
         (c) Monitor and evaluate success of revegetation in relation to project plan. Repeat as indicated by local prescriptions.
      (4) Minimize the movement of existing and new weed species caused by moving infested gravel and fill material. The borrow pit will not be used if new invaders, defined by the Forest Weed Specialist, are found on site.
      (5) Minimize sources of weed seed in areas not yet revegetated. If straw is used for road stabilization and erosion control, it must be certified weed-free or weed-seed-free.
      (6) Minimize roadside sources of weed seed that could be transported to other areas during maintenance.
         (a) Look for priority weed species during road maintenance and report back to District Weed Specialist.
         (b) Do not blade roads or pull ditches where new invaders are found.
         (c) Maintain desirable roadside vegetation. If desirable vegetation is removed during blading or other ground disturbing activities, area must be revegetated according to section (3) (a), (b), (c) above.
         (d) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)
         (e) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders, as determined by the Forest Weed Specialist. Reference Contract Provision C/CT 6.626.
         (f) Straw used for road stabilization and erosion control will be certified weed-free or weed-seed-free.
      (7) Reduce weed establishment in road obliteration/reclamation projects. Revegetate according to section (3) (a), (b), (c) above.
   b. Recommended Objectives and Associated Practices.
      (1) Retain shade to suppress weeds. Consider minimizing the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects.
      (2) Consider re-establishing vegetation on bare ground due to construction and reconstruction activity to minimize weed spread. Road maintenance programs should include scheduled fertilization to maintain vigor of competitive vegetation (3-year period suggested).
      (3) Minimize the movement of existing and new weed species caused by moving infested gravel and fill material. All gravel and borrow sources should be inspected and approved before use and transport. The source will not be used if the weeds present at the pit are not found at the site of intended use. If weeds are present, they must be treated before transport and use.
      (4) Minimize roadside sources of weed seed that could be transported to other areas. Weed infestations should be inventoried and scheduled for treatment.
(5) Ensure that weed prevention and related resource protection are considered in travel management. Consider weed risk and spread factors in travel plan (road closure) decisions.

(6) Reduce weed establishment in road obliterati/ reclamation projects. Consider treating weeds in road obliterati/ reclamation projects before roads are made undriveable. Monitor and retreat as indicated by local analysis and prescription.

(7) Evaluate and prioritize noxious weeds along existing Forest Service access roads leading to project area and treat as indicated by local analysis and prescriptions, before construction equipment moves into project area. New road construction must be revegetated as described in Weed Prevention measure, see Roads Required Objectives and Associated Practices section (3) (a), (b), (c) above.
APPENDIX C

Postfire Hazard Tree Removal Activity
Seed Mix

Sioux Ranger District

SEED: All sites requiring seed will use the following mixes and rates. These native mixes must be certified weed seed free. Season of application should be generally before mid-October, just prior to freezing/snowing. If this window is not met, then spring seeding is an option.

<table>
<thead>
<tr>
<th>Common name &amp; variety</th>
<th>Scientific name</th>
<th>Quantity of PLS (lbs/ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>western wheat –</td>
<td>Agropyron smithii</td>
<td>7.0</td>
</tr>
<tr>
<td>rosana or rodan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>thickspike wheat -</td>
<td>Agropyron dasystachym</td>
<td>5.0</td>
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<tr>
<td>critana</td>
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<tr>
<td>slender wheat –</td>
<td>Agropyron trachycaulum</td>
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</tr>
<tr>
<td>pryor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>green needle grass</td>
<td>Stipa viridula</td>
<td>3.0</td>
</tr>
<tr>
<td>iodorm</td>
<td></td>
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</tr>
</tbody>
</table>

Total Pure Live Seed lbs/acre* = 18

*The above species are considered native to the area. Mix recommendation and consultation - USDA-Bridger Plant Material Center, Mark Majerus, Bridger, MT.

Seed Certification
Certified, blue-tagged seed shall be used where a name variety or cultivar is specified. Blue tags, that are removed to mix or spread the seed will be saved and provided to the Forest.
• All seed purchased will be certified free of seeds from weeds listed on the current "All States Noxious Weeds List."

• Test results from a certified seed analyst and seed analysis labels attached to the bags will be provided to the Forest Service. Lab testing for noxious weeds will be conducted prior to seed mixing. Only after a finding and documentation in writing of no weeds on the current "All States Noxious Weeds List" will the seed be accepted and used.

• To avoid weed contaminated seed, each lot must be tested by a certified seed laboratory against the all State noxious weed lists and documentation of the seed inspection test provided (FSM 2081 R1 Supp 2000-2001-1 Effective May 14, 2001 approved 4/27/01).
APPENDIX D

EXCERPTS OF POTENTIALLY APPLICABLE SOIL AND WATER CONSERVATION PRACTICES FROM THE SOIL AND WATER CONSERVATION FOREST SERVICE HANDBOOK 2509.22 R1 SUPPLEMENT (5/88)

11 WATERSHED MANAGEMENT
11.03 Watershed Improvement Planning and Implementation
11.04 Floodplain Analysis and Evaluation
11.05 Wetlands Analysis and Evaluation
11.06 Public Supply Watershed Management
11.07 Oil and Hazardous Substance Spill Contingency Planning
11.09 Management by Closure to use
11.13 Sanitary Guidelines for Construction of Temporary Labor, Spike, Logging, and Fire Camps, and Similar Installations

12 RECREATION
12.04 Providing Safe Drinking Water Supplies
12.05 Documentation of Potable Water Quality Data
12.06 Management of Sanitation Facilities
12.07 Control of Refuse Disposal
12.08 Assuring Proper Sanitation and Water Supplies for Special Use Facilities
12.11 Protection of Water Quality Within Developed and Dispersed Recreation Areas

13 VEGETATION MANIPULATION
13.01 Operating Seeding and Land Preparation Equipment on the Contour
13.02 Slope Limitations for Tractor Operation
13.03 Tractor Operation Excluded from Wetlands, Bogs, and Wet Meadows
13.04 Revegetation of Surface Disturbed Areas
13.05 Soil protection During and After Slash Windrowing
13.06 Soil Moisture Limitations for Tractor Operation
13.10 Pesticide Spill Contingency Plan
13.11 Cleaning and Disposal of pesticide Containers and Equipment
13.12 Protection of Water, Wetlands, and Riparian Areas During pesticide Spraying
13.13 Controlling pesticide Drift During Spray Application

14 TIMBER
14.01 Timber Sale Planning
14.02 Timber Harvest Unit Design
14.03 Use of Sale Area Maps for Designating Soil and Water Protection Needs
14.04 Limiting the Operating Period of Timber Sale Activities
14.05 Protection of Unstable Areas
14.06 Riparian Area Designation
14.07 Determining Tractor Loggable Ground
14.08 Tractor Skidding Design
14.09 Suspended Log yarding in Timber harvesting
14.10 Log Landing Location and Design
14.11 Log Landing Erosion Prevention and Control
14.12 Erosion Prevention and Control Measures During Timber Sale Operations
14.13 Special Erosion Prevention Measures on Area Disturbed by Harvest Activities
14.14 Revegetation of Areas Disturbed by Harvest Activities
14.15 Erosion Control on Skid Trails
14.16 Meadow Protection During Timber harvesting
14.17 Streamcourse Protection (Implementation and Enforcement)
14.18 Erosion Control Structure Maintenance
14.19 Acceptance of Timber Sale Erosion Control measures Before Sale Closure
14.20 Slash Treatment in Sensitive Areas
14.21 Non-recurring "C" provisions That Can Be Used for Water Quality Protection
14.22 Modification of the Timber Sale Contract

15 ROADS AND TRAILS
15.03 Road and Trail Erosion Control Plan
15.04 Timing of Construction Activities
15.05 Slope Stabilization and Prevention of Mass Failures
15.06 Mitigation of Surface Erosion and Stabilization of Slopes
15.07 Control of Permanent Road Drainage
15.10 Timely Erosion Control Measures on Incomplete Road and Streamcrossing Projects
15.11 Servicing and Refueling of Equipment

18 FIRE SUPPRESSION AND FUELS MANAGEMENT
18.01 Fire and Fuel Management Activities
18.02 Formulation of Fire Prescriptions
18.03 Protection of Soil and Water from Prescribed Burning Effects