

CATEGORICAL EXCLUSION DOCUMENTATION FOR DNRC FOREST MANAGEMENT ACTIVITY

Project Name: Big Prairie Fire Salvage

Proposed Implementation Date: May 2020

Proponent: Milner Brothers Logging, Inc

Type and Purpose of Action: The Department of Natural Resources and Conservation (DNRC) proposes to sell Approximately 2,200 tons (325 MBF) of salvage timber from Section 12, Township 23 North, Range 27 West, approximately 23 air miles north of Plains, Montana. This action would produce estimated revenue of \$32,824.00 for the Public Buildings (P.B.) Trust Grant; and \$9,658.00 in Forest Improvement funds. Under the proposed action, DNRC would salvage timber affected by the McCully Ridge Fire, reduce insect infestations, and promote timber types historically found in the area, maintain and improve forest health, and increase forest productivity beneficial to future trust actions (See Attachment 1, Vicinity and Project Maps).

Location: Section 12, T23N, R27W

County: Sanders

Category (refer to ARM 36.11.447 (3)(a) through (w) for additional detail):

- a) ☐ Temporary Uses of Land with Negligible Effects
- b) ☐ Plans and Policies
- c) ☐ Leases and Licenses
- d) ☐ Acquisition of Land or Interest in Land
- e) ☐ Road Maintenance and Repair
- f) ☐ Bridges and Culverts
- g) ☐ Crossing Class 3 Streams
- h) ☐ Temporary Road Use Permits
- i) ☐ Road Closure
- j) ☐ Material Stockpiles
- k) ☐ Backfilling
- l) ☐ Gathering Forest Products for Personal Use
- m) ☐ Regeneration
- n) ☐ Nursery Operations
- o) ☐ Water Wells
- p) ☐ Herbicides and Pesticides
- q) ☐ Other Hazardous Materials
- r) ☐ Fences
- s) ☐ Waterlines
- t) ☐ Removal of Small Trees
- u) ☐ Removal of Hazardous Trees
- v) ☐ Cone Collection
- w) ☒ Timber Harvest (< 500 MBF)

By process of the adoption of the Forest Management Rules on February 27, 2003, pursuant to ARM 36.2.523(5)(a), the Department of Natural Resources and Conservation, Trust Land Management Division, has adopted the above categorical exclusions for activities conducted on state forested trust lands.

"Categorical Exclusion" refers to a type of action that does not individually, collectively, or cumulatively require an EA or EIS unless extraordinary circumstances occur (ARM 36.2.522(5)).

Extraordinary Circumstances:

Will the proposed action affect one or more of the following resources, species or situations in the project area? If the resource, species, or situation is present, but project design avoids potential adverse effects on the resource, the answer is "No". One "Yes" answer indicates that Categorical Exclusion is not appropriate for the project, and an EA or EIS must be conducted.

YES	NO	
<input type="checkbox"/>	X	a) Sites with high erosion risk.
<input type="checkbox"/>	X	b) Federally listed threatened and endangered species or critical habitat for threatened and endangered species as designated by the USFWS.
<input type="checkbox"/>	X	c) Municipal watersheds.
<input type="checkbox"/>	X	d) The SMZ of fish bearing streams or lakes, except for modification or replacement of bridges, culverts and other crossing structures.
<input type="checkbox"/>	X	e) State natural area.
<input type="checkbox"/>	X	f) Native American religious and cultural sites.
<input type="checkbox"/>	X	g) Archaeological sites.
<input type="checkbox"/>	X	h) Historic properties and areas.
<input type="checkbox"/>	X	i) Several related projects that individually may be subject to categorical exclusion but that may occur at the same time or in the same geographic area. Such related actions may be subject to environmental review even if they are not individually subject to review.
<input type="checkbox"/>	X	j) Violations of any applicable state or federal laws or regulations.

The project listed above meets the definition of the indicated categorical exclusion, including specified conditions and extraordinary circumstances, as provided in the Forest Management Rules (ARM 36.11.447).

Prepared by: Dale Peters
(Name) 02/18/2020
(Date)

Decision by: David Olsen
(Name) Program Manager
(Title)

David Olsen
(Signature) 02/20/2020
(Date)

ATTACHMENT I

Vicinity Map

Timber Permit Map

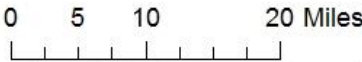
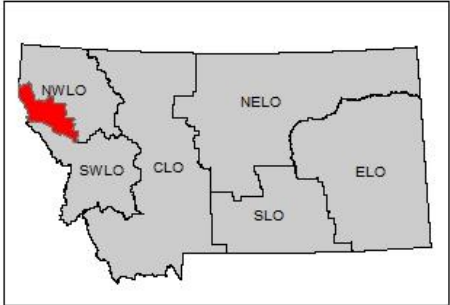
State Trust Land Vicinity Map Plains Unit

Big Prairie Fire Salvage Permit



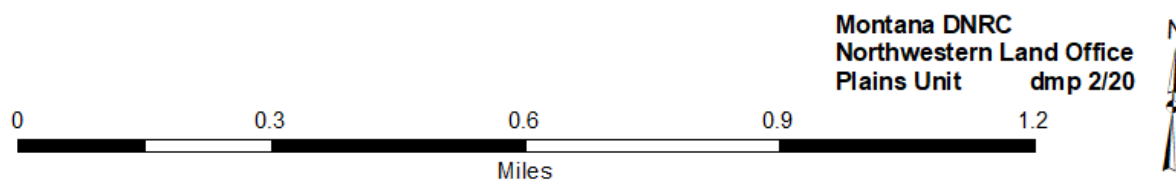
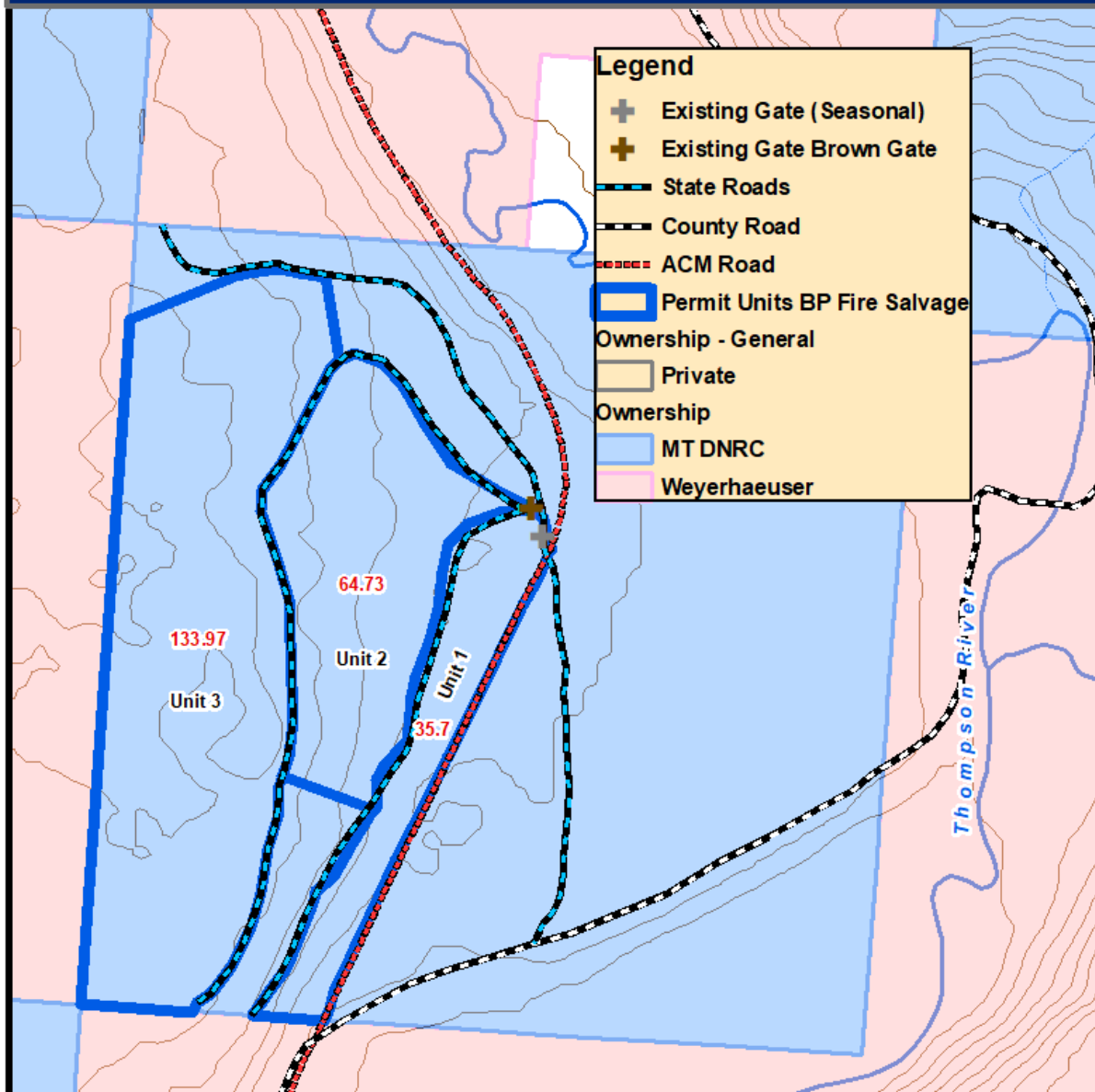
Big Prairie Fire Salvage Permit
Section: 12
Township: 23 North
Range: 27 West
County: Sanders
Trust: Public Buildings

- Rivers
- Water Bodies
- State Trust Lands
- Towns
- Major Roads



Produced by Montana Department of Natural Resources and Conservation 11/1/2019
Datum: NAD 1983 State Plane

Big Prairie Fire Salvage Timber Permit T23N R27W Section 12 Public Buildings Trust



ATTACHMENT II

RESOURCE ANALYSIS

WILDLIFE ANALYSIS

Memorandum

To: Dale Peters
Cc: Marc Vessar
From: Leah Breidinger, Wildlife Biologist
Date: February 14, 2020
Re: Big Prairie Salvage -wildlife comments

I reviewed the Big Prairie Salvage Permit proposed for 250 acres in Section 12, T23N, R27W. The proposed project would remove approximately 90 loads (approximately 350 MBF) of primarily Douglas-fir which has been impacted by bark beetles. Many of the large-dbh Douglas-fir have died or are infested with beetles likely due in part to stress caused by the McCully Fire of 2017. The proposed salvage would occur from approximately May – October of 2020. The attached table summarizes the anticipated effects of the proposed activities on each Threatened or Endangered species, sensitive species, and big game species.

SPECIES/HABITAT	DETERMINATION – BASIS
THREATENED AND ENDANGERED SPECIES	
Canada lynx (<i>Felis lynx</i>) Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zones	The Project Area contains 66 acres of suitable lynx habitat. The salvage would focus on removing dead trees as well as trees that are likely to die following bark beetle infestation. To reduce potential adverse impacts on lynx a minimum of 40% canopy cover of conifers would be retained and post-salvage, the area would remain suitable for lynx use. However, portions of the unit impacted by line corridors would have a reduced density of trees in the understory. Lynx sighting in the area are infrequent and lynx use of the area is unlikely (<i>MTNHP data 2/11/2020</i>), but lynx may travel through occasionally. Thus, negligible adverse direct, indirect, or cumulative effects to Canada lynx would be anticipated.
Grizzly bear (<i>Ursus arctos</i>) Habitat: Recovery areas, security from human activity	The Project Area is located outside of grizzly bear recovery zone and non-recovery occupied habitat (<i>USFWS 1993, Wittinger 2002</i>) and grizzly bear sightings in the area are infrequent. Thus, negligible adverse direct, indirect, or cumulative effects to grizzly bears would be anticipated.
SENSITIVE SPECIES	
Bald eagles (<i>Haliaeetus leucocephalus</i>) Habitat: Late-successional forest less than 1 mile from open water	Bald eagles nest along the Thompson River. However, the proposed salvage is located >0.5 miles from known nest sites (<i>MTNHP data 2/11/2020</i>). Additionally, the Thompson River has heavy logging traffic, so additional log trucks are unlikely to impact the birds, which are likely accustomed to this level of activity. Thus, negligible adverse direct, indirect, or cumulative effects to bald eagles would be anticipated.
Black-backed woodpeckers (<i>Picoidea arcticus</i>) Habitat: Mature to old burned or beetle-infested forest	Portions of the Project Area burned in 2017 in the McCully Fire. However, these acres were subject to a low-severity underburn that resulted in low tree mortality and the area is not likely to provide high quality habitat for black-backed woodpeckers. Additionally, black-backed woodpeckers were not observed while walking through the burned acres. Thus, no direct, indirect, or cumulative effects to black-backed woodpeckers would be anticipated.
Coeur d'Alene salamanders (<i>Plethodon idahoensis</i>) Habitat: Waterfall spray zones, talus near cascading streams	No moist talus or streamside talus habitat occurs within the Project Area. Thus, no direct, indirect, or cumulative effects to Coeur d'Alene salamanders would be anticipated.

Columbian sharp-tailed grouse (<i>Tympanuchus Phasianellus columbianus</i>) Habitat: Grassland, shrubland, riparian, agriculture	No suitable grassland communities occur within the Project Area. Thus, no direct, indirect, or cumulative effects to Columbian sharp-tailed grouse would be anticipated.
Common loons (<i>Gavia immer</i>) Habitat: Cold mountain lakes, nest in emergent vegetation	No suitable lake habitat occurs within 500 feet of the Project Area. Thus, no direct, indirect or cumulative effects to common loons would be anticipated.
Fishers (<i>Martes pennanti</i>) Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian	Approximately 184 acres of potential fisher habitat would be impacted by the proposed activities. However, the salvage would retain all healthy trees. Post-harvest portions of the Project Area would not be suitable for fishers depending upon the extent of beetle infestation. To reduce the impact of the proposed salvage on fishers, all snags that do not harbor bark beetles and 2 large snag recruits (≥ 21 -inch dbh or the next largest) would be retained per acre. These trees provide important resting and denning sites for fishers. Thus, negligible adverse direct, indirect or cumulative effects to fishers would be anticipated.
Flammulated owls (<i>Otus flammeolus</i>) Habitat: Late-successional ponderosa pine and Douglas-fir forest	No suitable flammulated owl habitat occurs in the Project Area. Thus, no direct, indirect or cumulative effects to flammulated owls would be anticipated.
Gray wolves (<i>Canis lupus</i>) Habitat: Ample big game populations, security from human activities	Wolves may use the Project Area at any time. However, the proposed activities would not occur in areas likely to be used as denning or rendezvous sites and are not anticipated to have adverse effects on wolf prey. Thus, negligible adverse direct, indirect or cumulative effects to gray wolves would be anticipated.
Harlequin ducks (<i>Histrionicus histrionicus</i>) Habitat: White-water streams, boulder and cobble substrates	No suitable high-gradient stream or river habitat occurs near the Project Area and harlequin ducks have not been observed near the Project Area (MTHP data, 2/11/2020). No direct, indirect or cumulative effects to harlequin ducks would be anticipated.
Northern bog lemmings (<i>Synaptomys borealis</i>) Habitat: Sphagnum meadows, bogs, fens with thick moss mats	No suitable sphagnum bogs or fens occur within the Project Area. Thus, no direct, indirect, or cumulative effects to northern bog lemmings would be anticipated.
Peregrine falcons (<i>Falco peregrinus</i>) Habitat: Cliff features near open foraging areas and/or wetlands	No suitable cliffs/rock outcrops occur within 0.5 miles of the Project Area and there are no records of peregrine falcon eyries near the Project area (MTNHP data, 2/11/2020). Thus, no direct, indirect, or cumulative effects to peregrine falcons would be anticipated.
Pileated woodpeckers (<i>Dryocopus pileatus</i>) Habitat: Late-successional ponderosa pine and larch-fir forest	Approximately 66 acres of pileated woodpecker habitat would be affected by the proposed salvage. Post-harvest portions of the Project Area would not be suitable for pileated woodpeckers depending upon the extent of beetle infestation. However, the salvage would retain all healthy trees. Potential foraging and nesting trees would be removed; however, the all snags free of beetle activity and 2 snag recruits ≥ 21 inches dbh would be retained per acre. Thus, negligible adverse direct, indirect, or cumulative effects to pileated woodpeckers would be anticipated.
Townsend's big-eared bats (<i>Plecotus townsendii</i>) Habitat: Caves, caverns, old mines	No suitable caves or mine tunnels are known to occur within the Project Area. Thus, no direct, indirect or cumulative effects to Townsend's big-eared bats are anticipated.
Wolverine (<i>Gulo gulo</i>) Habitat: Alpine tundra and high-elevation boreal and coniferous forests that maintain deep persistent snow into late spring	Wolverines are not likely to use the Project Area considering the low elevation of the site. Thus, no direct, indirect, or cumulative effects to wolverines would be anticipated.
BIG GAME SPECIES	
Elk (<i>Cervus canadensis</i>)	The Project Area is considered potential winter range habitat for white-tailed deer and elk (DFWP 2008). The proposed activities would remove some thermal cover, however, all trees removed have died due to bark
Mule Deer (<i>Odocoileus hemionus</i>)	

White-tailed Deer (<i>Odocoileus virginianus</i>)	beetles or are infested and likely to die. Therefore, trees proposed for removal are not likely to contribute to thermal cover beyond the winter of 2019/2020. Additionally, removal of beetle infested trees would reduce the likelihood of infestations in adjacent forest stands currently providing thermal cover for deer and elk. The salvage would not occur during the winter when animals are nutritionally stressed. Thus, considering that only trees impacted by bark beetles would be removed and that the salvage would not occur in the winter, negligible adverse direct, indirect or cumulative effects to big game are anticipated.
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Conclusion:

The potential for adverse effects to threatened and endangered wildlife species is low. None of the extraordinary circumstances listed under ARM 31.11.447(2) affecting wildlife resources would preclude the use of a categorical exclusion for this project.

List of Mitigations

- If a threatened or endangered species or an undocumented nesting raptor is encountered, consult a DNRC biologist and develop additional mitigations that are consistent with the administrative rules for managing threatened and endangered species (*ARM 36.11.428 through 36.11.435*).
- Prohibit contractors and purchasers from carrying firearms while on duty. Ensure that all food, garbage, and other attractants (e.g., petroleum products) are cleaned up and stored in a bear-resistant manner.
- Retain at least 2 large snag and snag recruits per acre >21 inches dbh or the next available size class. Any snags cut for safety must remain in the unit (*ARM 36.11.411, ARM 26.11.414*).
- Retain visual screening between the harvest unit and open roads.
- Restrict public access on restricted roads that are opened for salvage activities.

Literature Cited

DFWP. 2008. Maps of moose, elk, mule deer, and white-tailed deer distribution in Montana. Individual GIS data layers. August 12, 2008. Montana Fish, Wildlife and Parks. Helena, MT.

<http://fwp.mt.gov/gisData/imageFiles/distributionElk.jpg>.

<http://fwp.mt.gov/gisData/imageFiles/distributionMoose.jpg>.

<http://fwp.mt.gov/gisData/imageFiles/distributionMuleDeer.jpg>.

<http://fwp.mt.gov/gisData/imageFiles/distributionWhiteTailedDeer.jpg>

USFWS. 1993. Grizzly bear recovery plan.

Wittinger, W. 2002. Grizzly bear distribution outside of recovery zones. Unpublished memorandum. Report on file at Unpublished memorandum on file at USDA Forest Service, Region 1, Missoula, MT.

ATTACHMENT III

RESOURCE ANALYSIS

Hydrology & Soils ANALYSIS

Memorandum

To: Dale Peters, Project Leader

CC: Leah Breidinger, Wildlife Biologist

From: Marc Vessar, Forest Hydrologist

Date: February 18, 2020

Subject: Big Prairie Fire Salvage 2020

The proposed salvage harvest of beetle-killed trees and thinning would occur on the Plains Unit in section 12, T25N, R27W. A combination of conventional ground-based and excavator equipment would be utilized, depending upon the terrain. Approximately 350mbf would be removed from 205 acres in the project area. No streams have been identified near the proposed harvest unit. All work would be completed under dry or frozen/snow-covered conditions.

According to ARM 36.11.447 (w), the project meets the criteria necessary to be nominated as a Categorically Excluded project. To ensure the soil, water and fisheries resources present in the project area do not preclude the CatEx designation; this document will assess the risk to existing resources including addressing the extraordinary circumstances listed in ARM 36.11.447 (a) (b) (c) (d) and (i).

Issue	Assessment	Meet Criteria for CatEx?
High erosion risk soils? ARM 36.11.447 (2)(a)	The inventoried soil types in the project area are listed as 291B, 23D, 23E, 291D and 21B in the <i>Soil Survey of Sanders and Parts of Lincoln and Flathead Counties, Montana</i> (MT651) accessed using the Natural Resources Conservation Service WebSoil Survey. Soil erodibility ranges from moderate to high on these soils when at least 75% of the vegetation has been removed. Because no surface water is located near the harvest area, the risk of sediment delivery to a stream would be very low.	Yes
Federally listed threatened and endangered aquatic species or critical habitat for threatened and endangered aquatic species as designated by the USFWS? Adapted from ARM 36.11.447 (2)(b)	This portion of the Thompson River has <u>not</u> been designated as Bull Trout Critical Habitat per the USFWS website. https://www.fws.gov/pacific/bulltrout/Habitat.cfm	Yes
Within a municipal watershed? ARM 36.11.447 (2)(c)	No.	Yes
SMZ of fish bearing streams or lakes...? ARM 36.11.447 (2)(d)	No SMZ harvest is proposed.	Yes
Cumulative effects? Adapted from ARM 36.11.447 (2)(i)	Due to the small scale of this project, the gentle terrain and the limited surface water resources in the parcel, the risk of additional cumulative impacts would be very low and likely immeasurable. Therefore, cumulative impacts would remain acceptable for this watershed.	Yes

Conclusion:

This project meets watershed, soils and fisheries criteria for a categorical exclusion because the potential for impacts to these resources would be very low.

References:

WebSoil Survey.

Recommended Mitigations:

ARM 36.11.422 (2) and (2)(a) state that appropriate BMPs shall be determined during project design and incorporated into implementation. To ensure that the incorporated BMPs are implemented, the specific requirements would be incorporated into the DNRC Timber Sale Contract. As part of this alternative design, the following BMPs and recommendations are considered appropriate and, would be implemented during harvesting operations:

- 1) Limit equipment operations to periods when soils are relatively dry, (less than 20 percent oven-dry weight harvest units), frozen, or snow-covered to in order to minimize soil compaction and rutting, and maintain drainage features. Check soil moisture conditions prior to equipment start-up. In order to prevent soil resource impacts, logging activities would be restricted to periods when one or more of the following conditions occurs, unless otherwise approved in writing by the Forest Officer.
 - a. Soil-moisture content at 4-inch depth is less than 20% of oven-dry weight
 - b. Minimum frost depth of 3 inches
 - c. Minimum of 16 inches loose snow or 8 inches packed snow adequate to avoid soil displacement
- 2) On ground-based units, the logger and sale administrator would agree to a skidding plan prior to equipment operations. Skid-trail planning would identify which main trails to use and how many additional trails are needed. Trails that do not comply with BMPs (i.e. trails in draw bottoms) would not be used unless impacts can be adequately mitigated. Regardless of use, these trails may be closed with additional drainage installed, where needed, or grass-seeded to stabilize the site and control erosion. Additional requirements include:
 - a. Skid trails would be located at least 75 feet apart unless on snow.
 - b. Skid trails would have erosion control installed where needed as directed by the forest officer.
- 3) Tractor skidding should be limited to slopes of less than 40 percent. Based on site review, short, steep slopes may require a combination of mitigation measures, such as adverse skidding to a ridge or winchline, and skidding from more moderate slopes of less than 40 percent. Ground-based logging systems (tractor, skidders, and mechanical harvesters) would be limited to slopes less than 40% on ridges, convex slopes, and concave slopes when winter conditions exist; and less than 35% on concave slopes without winter conditions.
- 4) Keep skid trails to 20 percent or less of the harvest unit acreage. Provide for drainage in skid trails and roads concurrently with operations.
- 5) As much slash, long butts and cull material as feasible should be return skidded or left within the harvest unit. Slash should be returned at the landing to the unit and distributed evenly throughout the unit. Slash would be returned to the unit as it is created and worked onto the skid trails. Large amounts of slash shall not be allowed to accumulate at the landings before it is returned in the unit. Slash shall be scattered on skid trails as skidding progresses on each trail. Within the harvest units operations should retain 10-20 tons per acre of downed woody material larger than 3 inches diameter to be left scattered throughout the sale units. Material will be aligned predominately perpendicular to the slope. While sub-merchantable trees may be retained, all sub-merchantable trees felled, must be left predominately perpendicular to the slope to reduce surface runoff and erosion.
- 6) Install and maintain adequate road drainage to control erosion and comply with forestry Best Management Practices and maintain concurrent with hauling operations. To maintain drainage features and avoid rutting, the department would limit the season of road use to dry, frozen or adequately snow covered conditions.
- 7) Limit crossing of draws to a minimum spacing of 200 feet. Do NOT skid down draws.