

White Porcupine Multiple Timber Sales Project

Executive Summary

August 2008

Initial Proposal and Public Concerns

Swan River State Forest, Montana Department of Natural Resources and Conservation (DNRC), is planning the White Porcupine Multiple Timber Sales Project. The proposed sale area is located approximately 7 miles south of Swan Lake, Montana on school trust lands in the west portion of the forest. The project area totals approximately 6,295 acres and includes all or portions of Sections 2, 16, 22, 23, and 24, Township 23 north, Range 18 west, and Sections 22, 23, 26, 28, and 34, Township 24 north, Range 18 west. The project area also includes the existing and proposed roads needed to access and support the proposed project activities. (See *VICINITY MAP*, page 2, and *PROJECT AREA MAP*, page 3.)

This Executive Summary is part of the Draft

Environmental Impact Statement (DEIS) for the White Porcupine Multiple Timber Sales Project.

The DEIS presents:

- descriptions of a no-action alternative and 3 action alternatives and tells how each alternative would affect Swan River State Forest.
- a detailed analysis that explains how the project would affect or impact specific wildlife species, old growth, water quality, fish habitat, etc.

This Executive Summary:

- is designed in accordance with the Montana Environmental Policy Act (MEPA) rules;
- is written to be easily understood with supporting photographs and maps;
- briefly describes the project proposal and the alternatives that have been considered; and
- informs you of the next step in this project.

DNRC has the task of managing State school trust lands. The primary purposes of this timber sale project are to provide income for the school trust, grow new stands of healthy trees, and improve the growth and vigor of the remaining trees. This project follows the *State Forest Land Management Rules (Annotated Rules of Montana [ARM] 36.11.401 through 36.11.450)* and is based on the premise that, for the foreseeable future, timber management will continue to be the primary source of revenue. Timber management will be the primary tool for achieving biodiversity objectives on State forest lands.

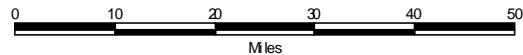
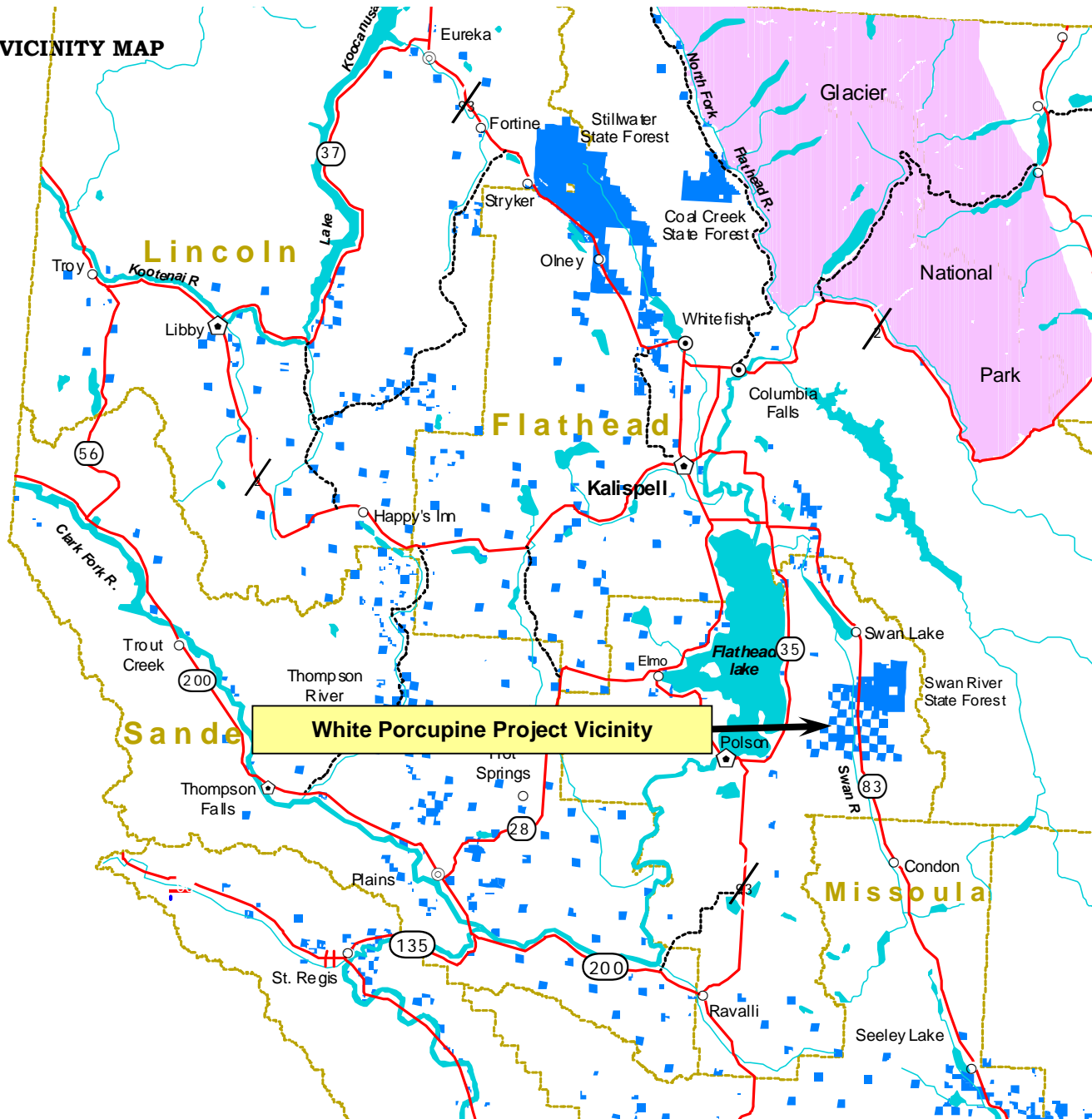


Swan River State Forest Headquarters

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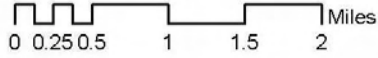
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VICINITY MAP



-  Highways
-  Other Roads
-  County line
-  Lakes
-  Streams
-  State Land

White Porcupine Multiple Timber Sale Proposed Project Area (Current)



Legend

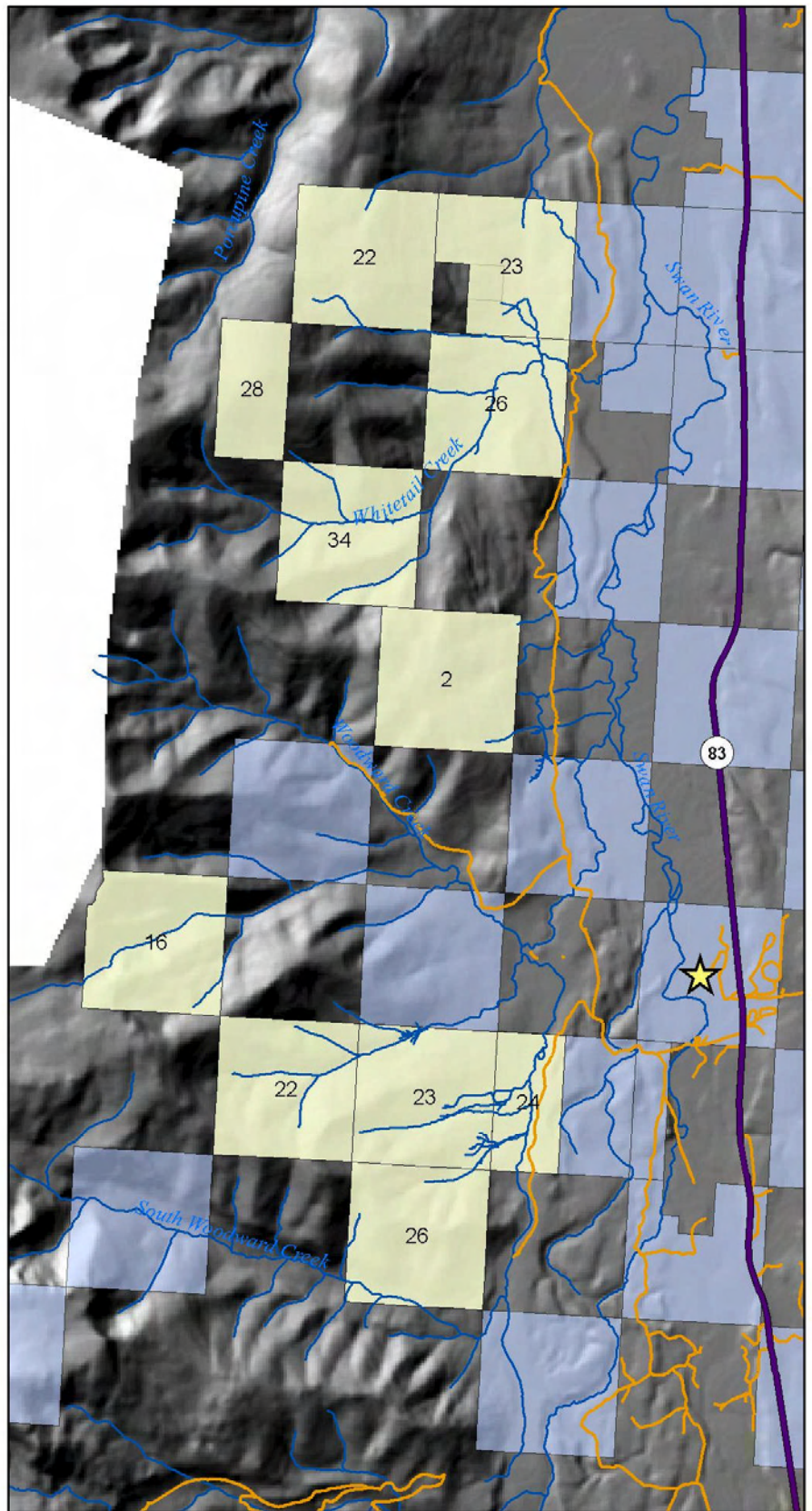
- State Highway
- Open Roads
- Rivers and Streams
- Swan River State Forest Headquarters
- White Porcupine Currently Proposed Project Area
- Other DNRC Parcels

Prepared by
Montana Department of
Natural Resources & Conservation
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NAD 1983 StatePlane Montana FIPS 2500



AREA OF INTEREST



Accomplishments to be Achieved by the Action Alternatives

Depending on whether an action alternative is chosen, and which one, 6 to 8 timber sales would be sold and harvested during the 3-year open active-management period. The proposed timber sale projects would harvest 15.5 to 24.2 million board feet (MMbf) of timber (3,100 to 4,830 truck loads of logs) from 1,186 to 1,563 acres.

In addition this project would:

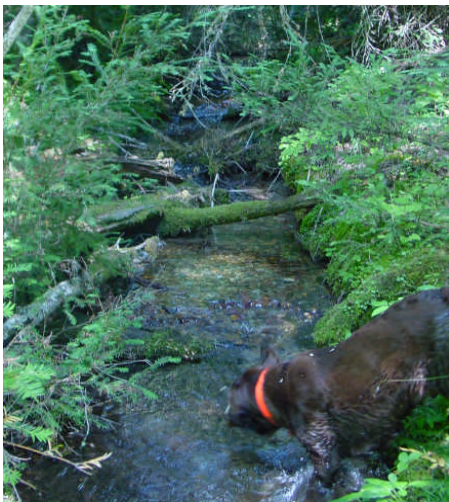
- move the forest stands towards historical conditions;
- harvest trees that have been affected by insects and diseases, thereby reducing fuel loads and, subsequently, fire hazards;
- generate \$1,148,446 to 1,949,598 for the Common School trust in support of public schools (kindergarten through grade 12);
- develop a 22-acre gravel pit, a little at a time, to provide a rock source for this and future projects;
- construct 9.5 to 14 miles of new roads and improve 41.6 to 62.9 miles of existing roads to meet Best Management Practices;
- repair 3 to 4 stream crossings and install 2 to 14 new stream crossings;
- prepare logged areas to grow new trees by broadcast burning or piling and burning slash and scarifying the ground to allow seeds to germinate naturally or trees to be planted.

Developing the Project and Displaying the Concerns

On March 13, 2003, the Department adopted the *Administrative Rules for Forest Management (Rules)*. The Rules provide guidance on how DNRC will manage their forests and deal with specific items that need to be considered when planning and conducting a timber sale. The ID Team followed these rules during the development of this timber sale project proposal. The Rules may be found on the web at:

www.dnrc.mt.gov/trust/default.asp. In general these Rules cover how the following items should be managed:

- biodiversity (the forest conditions are managed for a desired mix of stand structures and forest types);
- roads;
- watersheds;
- fisheries;
- wildlife species, including those listed as threatened, endangered, and sensitive, and big game;
- weeds; and
- economics.



Initial Proposal and Public Concerns

During the initial stages of this project, adjacent landowners, interested parties, and the public were informed of the proposed action and invited to submit any issues or concerns they may have.

In June of 2007, DNRC solicited public comments through the distribution of the White Porcupine Multiple Timber Sale Initial Proposal. The proposal included maps, objectives, and contact information, and was mailed to individuals, agencies, internal DNRC staff, industry representatives, and other organizations that had express interest in Swan River State Forest's management activities. Additionally, public notices were placed in area newspapers. Thirty days were given to submit comments, and 21 responses were received.

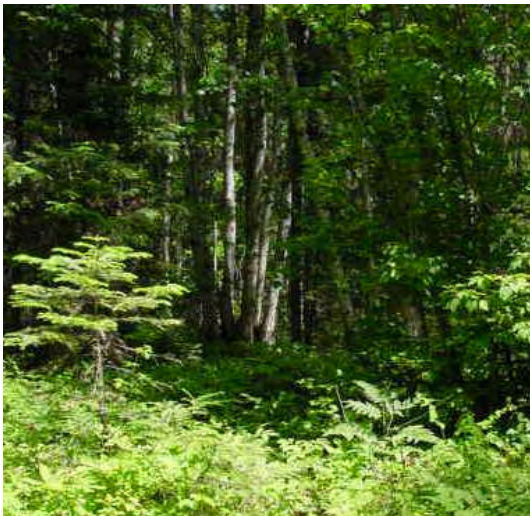
DNRC also held field tours during September 2007 and July of 2008, an open house during April 2008, and attended a community meeting during June 2008. Newsletters were also distributed to interested parties during December 2007 and March 2008; the newsletters elicited 2 additional comments.

The Interdisciplinary Team (ID Team) reviewed the responses and identified more than 110 issues related to the project. Along with issues raised by

DNRC staff, field work, and requirements imposed by applicable rules, laws, and regulations, the issues from the public provided the ID Team the framework to develop a reasonable range of alternatives.

After discussing these concerns and studying the area, we found that explanations of the effects that the proposed timber sale project would have on the following resources were needed:

- Vegetation (trees, including old growth)
- Watershed and hydrology (water)
- Fisheries
- Wildlife
 - Threatened and endangered species
 - Canada lynx
 - Gray wolf
 - Grizzly bear
 - Sensitive species
 - Fisher
 - Pileated woodpecker
 - Big game species
- Geology and soils
- Economics
- Air quality
- Recreation
- Aesthetics



Summary of Alternatives

After studying the list of concerns, 4 possible choices (alternatives) were developed by the ID Team. Each of the alternatives was designed to address a particular concern or group of concerns.

• *No-Action Alternative A*

- Timber would not be harvested.
- No money would be contributed to the Common School trust or the Forest Improvement Program.
- Roads would not be built or improved.
- A gravel pit would not be developed.
- Old-growth stands would not be treated or maintained.
- Forest cover and connectivity for wildlife travel would not be altered.
- Insect infestations and disease infections would likely increase.
- Road maintenance projects, fire suppression, and recreation activities would continue as in the past.
- The viewshed would not change.
- New risks to fisheries or water quality/quantity would not be created.

• *Action Alternative B*

- 21.5 MMbf of timber would be harvested from 1,519 acres.
- Approximately \$1,588,477 would be contributed to the Common School trust and \$586,950 would be contributed to the Forest Improvement Program.
- 62.9 miles of roads would be improved and 14 miles of new roads would be built.
- A 22-acre gravel pit would be developed in stages.
- Road construction and improvements would enhance the infrastructure and the ability to suppress fires in the long term.
- 3 wet and 16 dry stream crossings would be installed.
- Insect and disease issues to be managed and treated.
- 1,146 acres of old growth habitats would be harvested, thus removing 963 acres from the old-growth status.
- Effects to fisheries and water quality/quantity would be spread over a broad area that includes Whitetail, Woodward, and South Woodward creeks.



The local economy is supported via jobs created by timber sales.



Money earned from timber sales helps support schools

• ***Action Alternative C***

- 24.2 million board feet of timber would be harvested from 1,563 acres.
- Approximately \$1,949,598 would be contributed to the Common School trust and \$660,600 would be contributed to the Forest Improvement Program.
- 41.6 miles of roads would be improved and 9.5 miles of new roads would be built.
- A 22-acre gravel pit would be developed in stages.
- 3 wet and 8 dry stream crossings would be installed.
- Insect and disease issues would be managed and treated intensively; maintenance of additional stands would be allowed.
- 1,219 acres of old growth habitats would be harvested, thus removing 1,114 acres from the old-growth status.
- Management for larger forest patch sizes would minimize potential habitat fragmentation.
- Effects to fisheries and water quality/ quantity would be confined to Whitetail Creek.

• ***Action Alternative D***

- 15.5 million board feet of timber would be harvest from 1,186 acres.
- Approximately \$1,148,446 would be contributed to the Common School trust and \$423,150 would be contributed to the Forest Improvement Program.
- 60.4 miles of roads would be improved and 11.2 miles of new roads would be constructed.
- A 22-acre gravel pit would be developed in stages.
- The old-growth patch in the Whitetail drainage would be maintained.
- Forest stands would continue to shift toward historic conditions (desired future conditions).
- 5 wet and 11 dry stream crossings would be installed.
- Only a small portion of the insect and disease issues would be managed.
- 610 acres of old-growth habitats would be harvested, removing all 610 acres from the old-growth status.

**GENERAL DIFFERENCES
OF THE ACTION ALTERNATIVES**

Differences among the action alternatives:

- Number of acres harvested
- Amount of board feet harvested
- Amount of money generated for the Common School trust
- Amount of acres removed from the old-growth status
- Miles of new road to be built
- Miles of existing roads to be maintained
- Number of stream crossings to be installed
- Acres of stand promoted to desired future conditions
- The intensity of insect and disease treatments

Summary of Effects

VEGETATION

Vegetation is different than what was historically on Swan River State Forest and what is desired in the future. Trees that are able to grow in the shade and stands of mixed conifers (Engelmann spruce, western red cedar) are plentiful, while trees that are unable to grow in shade (western larch, Douglas-fir, and western white pine) are more scarce. Presently, the acres of trees in the seedling-sapling age class have been reduced, while trees in the old-stand age class are overly plentiful.

Stands where thinning and regeneration harvest treatments are used would shift the forest vegetation toward the desired future condition. Shade-tolerant and mixed-conifer species would be removed to allow western larch, ponderosa pine, Douglas-fir, and western white pine to regenerate. Stands where selective harvest treatments are used would give existing trees more room to grow, thus creating healthier, stronger forests.

The insect and disease problems in the project area on Swan River State Forest include the Douglas-fir bark beetle and various root diseases that attack Douglas-fir. The white pine blister rust, dwarf mistletoe, mountain pine beetle, and Indian paint fungus are also present. Therefore, trees selected for harvesting are primarily those affected by insects and diseases.

Approximately 31.1 percent of Swan River State Forest is considered to be old growth. The project area contains 2,722 acres of old growth stands. From 610 to 1,219 acres of old growth, depending on alternative, would be harvested. This would curtail disease infections and insect infestations in old-growth stands and potentially reduce

Douglas-fir, grand fir, subalpine fir, western red cedar, western hemlock, lodgepole pine and western white pine mortality.

Wildfires across Swan river State Forest vary in frequency and intensity, leaving a assorted pattern of age classes and covertypes. Immediately following timber harvesting under all of the action alternatives, the amount of fine fuels would increase. However, piling and burning slash and other various fuel treatments would reduce these hazards.

Sensitive plants were found in the project area in wet meadows, areas not usually considered for timber harvesting. No sensitive plant species were found in the proposed harvest units; therefore sensitive plants, would not likely be affected by the proposed action.

Canada thistle, spotted knapweed, yellow hawkweed, orange hawkweed, oxeye daisy, and common St. John's-wort are established along road edges in the project area. Weed seed would continue to be introduced by forest recreationists and log hauling and other logging activities on neighboring ownerships. Swan River State Forest may initiate spot spraying under the Forest Improvement program to reduce the spread of noxious weeds along roads. Under the action alternatives, log hauling and moving equipment would introduce seeds from other sites. However, weed establishment and spread would be reduced by requiring contractors to wash and have their machinery inspected prior to entering the project area. Required grass seeding of new and disturbed roads and landings, spot spraying areas of new weed infestations, and spraying herbicides on roadsides would also help.

WATERSHED AND HYDROLOGY

During project planning, the watersheds of South Woodward, Woodward, Whitetail, and East Porcupine creeks were assessed to determine how these creeks would be affected by the increased sedimentation and streamflow that is related to cutting trees, constructing and improving roads, and other logging activities. Sediment levels were measured and possible impacts from the proposed activities were studied. A determination was made that sediment levels in East Porcupine Creek would be unaffected and, thus, this creek was dismissed from further sedimentation analysis. South Woodward Creek currently receives approximately 23.6 tons of sediment per year, Woodward Creek receives 3.5 tons, and Whitetail Creek receives 5.9 tons. The road improvements in the three action alternatives would either not change sediment delivery to some creeks or would reduce the amount of sediment delivered to the creeks by 1.4 to 4.7 tons per year.

These same four creeks were measured for current water levels (water yield) and the possible impacts from the proposed activities were studied. The water yield in South Woodward Creek watershed is presently about 8.3 percent over the naturally occurring level; Woodward Creek is 7.2 percent over; Whitetail Creek is 7.4 percent over, and East Porcupine Creek is 6.6 percent over. Under the action alternatives, water yield would either remain the same or increase by 0.6 to 6.5 percent, depending on the creek.

FISHERIES

Westslope cutthroat trout, bull trout, a number of native fish species, and 3 nonnative fish species are present in the project area. The U.S. fish and Wildlife Service has listed bull trout as 'threatened' under the Endangered Species Act. Both bull trout and westslope cutthroat trout are listed as Class-A Montana Animal Species of Concern.

Whitetail Creek is the only area where harvesting activities would likely affect the presence of native fisheries populations. Currently, impacts unfavorable to native fish populations in this watershed are high. This timber sale is expected to have a positive effect on these fisheries by providing new habitat free of nonnative fish species. Subsequently, long-term risks to native westslope cutthroat trout populations would be reduced.

Other impacts to fisheries include flow regime, sediment, channel forms, riparian condition, large woody debris, temperature, macroinvertebrate richness, and connectivity. The following are the effects of the 5 analysis areas included in the project area:

- South Woodward Creek - Low impacts or no impacts would likely be experienced under all 3 action alternatives. Action Alternative B would result in all low impacts, except for connectivity, which would have no impacts. C would result in no impacts; and D would result in a mixture of no to low impacts.
- Woodward Creek - Under all 3 action alternatives, flow, sediment, channel forms, and macroinvertebrate richness would likely experience low impacts, and riparian condition, large woody debris, temperature, and connectivity would likely experience no impacts.

- Whitetail Creek - Under all 3 action alternatives, flow, channel forms, riparian condition, large woody debris, temperature, and macroinvertebrate richness would likely experience low impacts, sediment would experience moderate short-term impacts, and connectivity would experience positive impacts.
- Swan Face Drainage - Under all 3 action alternatives, flow, sediment, channel forms, and macroinvertebrate richness, would likely experience low impacts, and riparian condition, large woody debris, temperature, and connectivity would likely experience no impacts.
- Porcupine Creek—Under all 3 action alternatives, riparian condition, large woody debris, temperature, and connectivity would likely experience no impacts. Under Action Alternatives B and C, flow, sediment, channel forms, and macroinvertebrate richness would likely experience low impacts and no impacts under D.

WILDLIFE

General Habitat Attributes

The mixed-conifer covertypes is currently overrepresented on Swan River State Forest, which has increased habitat for wildlife species that use dense forest stands. Species that use the more-open stands have fewer habitats available. More stands that are mature exist than young stands; therefore, species that require younger-aged stands have less available habitat. Under the 3 action alternatives, some covertypes would be converted from shade-tolerant to shade-intolerant and older stands would be replaced with younger stands. Thus, future habitat would be more in keeping with historic conditions and the desired future conditions.

About 2,722 acres of old growth exist in the project area. Following are effects in summary for each action alternative:

- Action Alternative B - The old-growth amount would be reduced by 35 percent, though the number of patches and the relative large patch size would remain the same. Therefore, wildlife species that use old growth for living requirements would be only slightly affected.
- Action Alternative C - The old growth amount would be reduced by 41 percent. Large patches of old growth would be reduced in the project area. Wildlife species that use old growth for living requirements would be moderately affected, although the effects would be limited to the Whitetail drainage.
- Action Alternative D - The old-growth amount would be reduced by 22 percent. Large patches of old growth would remain plentiful in the project area. Therefore, wildlife species that use old growth for living requirements would be only slightly affected.

Forest connectivity has been fairly well maintained in the project area. The project area has about 4,403 acres of connected forest that provide habitats that allow wildlife species that in the forest movement without being easily detected. Following are effects in summary for each action alternative:

- Action Alternative B - The amount of connected forest would be reduced by 871 acres. The northernmost and southernmost portions of the project area would be affected the least. Therefore, wildlife connectivity in the project area would be affected to a minor degree.
- Action Alternative C - The amount of connected forest would be reduced by 1,001 acres. The uplands of the Whitetail drainage would be the most heavily impacted. Therefore, wildlife connectivity in the project area would be moderately affected.
- Action Alternative D— The amount of connected forest would be reduced by 821 acres. The effects would be scattered throughout the project area; though

connectivity along major creeks and ridges would be kept. Thus, wildlife connectivity in the project area would be affected to a minor degree.

Currently, the potential for linkage in the project and cumulative effects analysis areas is very good, human development is low, riparian areas are abundant and heavily vegetated, the density of open roads is relatively low, and hiding cover is relatively high. Under the action alternatives, the density of open roads would not increase.

Temporarily, road usage would increase, and the total density of roads would increase by 9.5 to 14.0 miles. The development of a 22-acre gravel pit would cause disturbance to slightly increase and hiding cover to decrease by roughly 25 percent; thus, the short-term effects would be moderate, while the long-term effects would be minor.

The average size of dense forest patches in the project area is 679 acres. Associated with these dense forest patches is 31.2 miles of edge habitat. Under the action alternatives, the average size of dense forest patches would decrease by roughly half. The associated edge habitats would increase by 13 to 24 percent. The wildlife species that rely on large patches of dense forests or that are sensitive to the edge effects would be moderately affected by the action alternatives.

Snags and coarse woody debris are more dense in the project area's older stands than were historically present, while the younger stands are likely below historical densities. Under the action alternatives, snag densities and coarse woody debris would decrease to a minimum of 2 large snags and 2 snag recruits per acre and 15 to 20 tons of coarse woody debris per acre over 1,500 acres, roughly. The high densities of snags and stands with high densities of coarse woody debris would likely remain on nearly half of the project area. Species that use snags and/or coarse woody debris for living requirements would have less habitat available. Overall, the negative effects to wildlife species in the project area would be minor.

THREATENED AND ENDANGERED SPECIES

➤ Canada Lynx

Approximately 6,044 acres of lynx habitat in the project area has been identified as forested travel/other and mature foraging habitats. Connected forest habitat is relatively unbroken. Under the action alternatives, between 288 and 600 acres of denning habitats would be removed and about 550 acres of mature foraging habitat would be altered. Between 1,053 and 1,406 acres would change to temporary non-lynx habitats. Collectively, between 1,187 and 1,565 acres of lynx habitat would be affected. Minor to moderate changes in connectivity would be expected for all action alternatives.

➤ Gray Wolf

For an area to support a wolf pack, white-tailed deer and elk must be availability. These big game species are abundant in both the project and cumulative-effects analysis areas. However, at 100 acres, the project area has a somewhat limited winter range for big game, though the cumulative effects analysis area has much more winter range (3,606 acres). Under the action alternatives, the proposed gravel pit would remove approximately 22 acres of trees that provide thermal cover and intercept snow. No changes to the number of big game species would be anticipated despite slight shifts of habitat, and minor changes in disturbance levels by humans would occur during project activities. Thus, prey availability would likely be very minimally affected, both directly and indirectly.

Landscape features commonly associated with denning and rendezvous sites for gray wolves occur in both the project area and entire Swan River State Forest. Although these areas are not known to contain den or rendezvous sites, 2 areas with centralized locations could indicate the presence of a den. Under Action Alternatives B and D, the potential den site is within a mile of the proposed units and haul

routes; therefore, activities could disrupt wolves at den or rendezvous sites particularly under these alternatives. Activities under Action Alternative C would be the most distant from any known or potential den and rendezvous sites and, therefore, has the least chance of disturbing wolves at these important sites. Minor adverse effects to disturbance levels at den and rendezvous sites would be anticipated under all action alternatives.

Human activity on open and closed roads, which could affect wolf use of the area, is variable throughout the project area. Hiding cover is abundant in the project area, but management activities could potentially result in an increase interaction between wolves and humans, resulting in wolves using this area less. Hiding cover would be reduced by 1,235 to 1,734 acres, depending on alternative. The density of open roads would not change under any action alternative. Between 9.5 and 14.0 miles of roads would be constructed; these roads would be restricted after harvesting activities have been completed. Therefore, minor adverse effects to the potential for conflicts between humans and wolves and general wolf disturbance would be anticipated.

➤ **Grizzly Bear**

In order to reduce the displacement of grizzly bears, encourage their use of suitable habitat, and decrease the risk of conflicts between bears and humans, the project was designed to preserve hiding cover for grizzly bears. Currently, hiding cover is plentiful in the project area and the entire Swan River State Forest. Between 1,235 and 1,734 acres of hiding would be reduced in the project area, depending on the action alternative. This would result in minor unfavorable effects to hiding cover.

An increase in total road density could lead to an increase in conflicts between humans and grizzly bears and displacement of grizzlies. The project area has approximately 35.4 miles

of permanent roads that are closed to motorized use by the general public; Swan River State forest has 218.8 miles. Under all action alternatives, restricted roads would be increased, but no changes to the roads that are in the open status would be anticipated. Therefore, the density of roads would not likely be directly and indirectly affected.

Grizzly bears depend on secure areas of suitable habitat. Approximately 27.2 percent of the project area contains habitat that provides security. Depending on the action alternatives, this habitat would be reduced to 8.2 to 19.3 percent. Between 860 and 1,565 acres would be harvested in spring habitat in the linkage zone. Also, between 9.5 and 14.0 miles of permanent, restricted roads would be constructed. Therefore, low to moderate adverse impacts to secure habitats would be anticipated under all the action alternatives.

SENSITIVE SPECIES

➤ **Fisher**

The project area has approximately 3,574 acres of fisher habitat; many of the wet areas along creeks are preferred fisher covertypes. Harvesting activities under the action alternatives would avoid riparian areas, but would reduce or remove upland fisher habitats by 837 to 1,432 acres, depending on the alternative. Additionally, the mature upland stands in preferred fisher covertypes would be removed on an additional 12 to 38 acres. Harvesting would reduce landscape connectivity and the amount of snags and coarse woody debris. No changes to public motorized access or the potential for trapping mortality would be likely. Therefore, low to moderate adverse effects to fisher would be anticipated under the action alternatives.

➤ **Pileated Woodpecker**

Approximately 1,651 acres contain potential pileated woodpecker nesting habitat; another 1,784 acres of sawtimber stands contain

potential foraging habitats. Under the action alternatives, harvesting would modify both the nesting and potential foraging habitats. Between 411 and 665 acres of nesting habitat and between 543 and 773 acres of potential foraging habitat would be modified under the action alternatives. Therefore, minor to moderate negative effects to pileated woodpeckers would be expected with the action alternatives.

BIG GAME SPECIES

The project area, which includes both white-tailed deer and elk habitat, provides both winter habitat and security cover. White-tailed deer are abundant in the project area, which contains 110 acres of winter range. Under the action alternatives, no harvesting would take place on the winter range. The proposed gravel pit would incrementally remove 22 acres. Thus, the proposed action alternatives would result in minor adverse effects .

Approximately 4,505 acres of the project area are part of a larger patch of elk security habitat, which offers opportunities for hunting. Swan River State Forest contains a 17,778-acre forested patch that crosses ownerships and meets the distance, cover, and size requirements of elk security. Changes in open roads or motorized access would not occur under any action alternative. The 9.5 to 14.0 miles of permanent, restricted road to be built with this project could increase nonmotorized access. Elk security habitat would be reduced by roughly 1,000 acres, and roughly 150 additional acres would be modified under the action alternatives. Therefore, minor adverse effects to elk security habitats would be expected under all 3 action alternatives.

GEOLOGY AND SOILS

This analysis considers the current level of impacts to soils in the project area and determines the potential effects of the harvesting and management activities. The majority of the proposed activities would harvest stands that have not been previously entered. While previous

harvest units in the project area would continue to recover from past impacts, between 8.5 and 19.5 percent of soils in the project area would be impacted by skidding logs, operating equipment, developing a gravel pit, and constructing new roads.

No sites of persistent erosion exist in the project area, and the potential for upland erosion and sediment transport in the upland harvest units is low under all action alternatives. Also, the proposed activities would have moderate impacts to nutrient pools and site productivity for a short duration. Fifteen to 25 tons per acre of coarse and fine woody debris would be retained on site.

During field review of the project area, only one small slope failure was noted. Slopes prone to instability are present in the project area, but minimal activities are planned for those locations. During harvesting activities and for a short period following these activities, the risk of increased slope instability is moderate under Action Alternatives B and D; the risk of instability is low under Action Alternative C.

ECONOMICS

Income from timber sales is transferred to the Office of Public Instruction for Common Schools and to the individual agencies. Revenue is distributed to various education institutions through the legislative process. Should an action alternative be selected, the money generated would help pay for students to attend school in Montana.

The direct effects associated with the action alternatives are estimated to lie between \$1.1 and \$1.9 million in state trust land revenue, between 155 and 242 timber industry jobs, and between \$6.3 and \$9.8 million in timber industry earnings.

AIR QUALITY

Air quality is generally excellent in the analysis area because emission sources are limited and wind dispersion is consistent throughout most of the year. Emissions do not affect local population centers, impact zones, or Class I Areas beyond the

standards of the Environmental Protection Agency (EPA) and Department of Environmental Quality (DEQ).

Smoke from prescribed burning and dust from road construction, maintenance, and travel would be produced under the action alternatives. However, burning days would be controlled and monitored by DEQ and the smoke-monitoring unit of the Montana/Idaho Airshed Group and would meet EPA standards; therefore, direct and indirect effects of burning activities would be minimized.

Effects to air quality from dust are expected to be localized to roadways, areas directly adjacent to the roadways, and the southern portion of Section 24, T23N, R18W. Vegetative barriers and measures to decrease the dust are expected to greatly limit the dispersion of dust beyond those areas.

RECREATION

Several miles of road that are open, seasonally restricted, and closed to public motorized access exist throughout the area. Big game species are abundant throughout both the project area and the cumulative effects analysis area, affording many hunting opportunities. Revenue is generated by a number of recreational licenses in the area. Under the action alternatives, no changes would occur in open roads or motorized access. A 15- to 23-percent increase in road miles would be available

for public nonmotorized recreation. No negative direct or indirect effects to hunting are expected. Effects to recreationists during the workweek are expected to be moderate to high as a result of these forest-management activities, while effects to recreationists during the weekend are expected to be minimal. No changes in revenue produced by recreational licenses are expected.

AESTHETICS

Several miles of road and acres of previously harvested forest are potentially visible from specific observation points, but vegetation in the foreground currently block these views. Under the action alternatives, increases in the amount of visible acres and road miles would be insignificant due to obstructions in the foreground and middleground of each observation point. If harvest units next to regenerating or unharvested stands were visible from observation points, the harvest units would appear relatively stark.

Currently, traffic, harvesting operations, rock blasting, and gravel crushing all produce noise throughout Swan River State Forest. Noise from these activities coincides with the rotational schedule required under the Swan Valley Grizzly Bear Conservation Agreement. Under the action alternatives, effects to noise levels in the project area as a result of harvesting operations, harvest-related traffic, and gravel pit development are expected to be moderate during the workweek and minor during the weekend.

OVERVIEW OF THE DEIS

The DEIS contains a more complete description of the purpose, development, analyses, alternatives, and potential impacts associated with the proposed action.

To receive a copy of the White Porcupine Multiple Timber Sale Project DEIS, please contact Kristen Baker by phone at 406-754-2301, by mail at 34925 MT Hwy 83, Swan Lake MT 59911 , or by email at kbaker@mt.gov. The document is also available online at www.dnrc.mt.gov/env_docs.

The DEIS has been sent to interested parties that have, over the course of this project, requested these documents. A 30-day comment period will follow the publication of the DEIS. Following the comment period, a Final Environmental Impact Statement (FEIS) will be developed, published, and sent to those that have received the DEIS. No sooner than 15 days following publication of the FEIS, Dan Roberson, Swan River State Forest Unit Manager, will choose an alternative, or a combination of alternatives. His recommendation will then be sent to the Land Board, whose members are charged with making the final decision.