

DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION



JUDY MARTZ, GOVERNOR

STATE OF MONTANA

NORTHWESTERN LAND OFFICE
2250 HIGHWAY 93 NORTH
KALISPELL, MONTANA 59901-2557

Telephone: (406) 751-2249
FAX: (406) 751-2288

GOAT SQUEEZER TIMBER SALE PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT
April 2, 2003

Enclosed is a copy of the Goat Squeezer Timber Sale Project Final Environmental Impact Statement (FEIS) Executive Summary.

The proposed project is located approximately 12 miles southeast of Swan Lake, Montana in Swan River State Forest.

The Department does not present a preferred alternative of the two action alternatives analyzed in the DEIS. Proposed harvest volumes range from 0 million board feet (MMBF) in No-Action Alternative A, to 13.4 MMBF in Action Alternative B, and 10.2 MMBF in Action Alternative C.

My proposed decision in the FEIS is Action Alternative C. I anticipate making my final decision on April 17, 2003.

The DEIS was designed to address Swan River State Forest's primary commitment to Montana's mandated timber-harvest levels over a three-year period. This approach does a better job of analyzing cumulative effects to valuable resources and improves coordination in project planning within active subunits scheduled by the Swan Valley Grizzly Bear Conservation Agreement.

The DEIS is written in the format that can be understood by a person of any interest level and incorporates pictures in the Executive Summary to promote project understanding. The DEIS consolidates Chapters III and IV into one section that summarizes the analysis in plain English. The bulk of the scientific analysis is located in the tabbed appendices. The information in the appendices will need to be used for scientific, technical, or legal review. This format has improved our ability to communicate with all individuals interested in the management of State lands.

Sincerely,

Handwritten signature of Robert L. Sandman in black ink.

Robert L. Sandman
Unit Manager
Stillwater State Forest
P.O. Box 164
Olney, Montana 59927
(406) 881-2371

RLS:mb
Enclosure
cc: Project file

KALISPELL UNIT
2250 Highway 93 North
Kalispell, MT 59901-2557
Telephone (406) 751-2240
Fax (406) 751-2288

STILLWATER STATE FOREST
PO Box 164
Olney, MT 59927-0164
Telephone (406) 881-2371
Fax (406) 881-2372

LIBBY UNIT
14096 US Highway 37
Libby, MT 59923-9347
Telephone (406) 293-2741
Fax (406) 293-9307

PLAINS UNIT
PO Box 219
Plains, MT 59859-0219
Telephone (406) 826-3851
Fax (406) 826-5785

SWAN RIVER STATE FOREST
58741 Highway 83 South
Swan Lake, MT 59911
Telephone (406) 754-2301
Fax (406) 754-2884

RECEIVED
GOAT SQUEEZER
TIMBER SALE
PROJECT
EXECUTIVE SUMMARY
APR 16 2003
LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE



Swan River State Forest Headquarters Office



Swan River State Forest Compound Sign



Landscape

Swan River State Forest, Montana Department of Natural Resources and Conservation, is proposing a timber sale that would log 10 to 14 million board feet (2,500 to 3,500 log truck loads) of timber. The trees would be harvested from between 1,866 to 2,444 acres. The Goat Squeezer Timber Sale Project area is located approximately 12 miles southeast of Swan Lake, Montana in State-owned Sections 4, 8, 10, 16, 20, 22, 26, 28, 30, 32, and 34, Township 23 north, Range 17 west, and Sections 32, 33, and 34, T24N, R17W (see *GOAT SQUEEZER VICINITY MAP, PAGE 4*). In addition to logging timber:

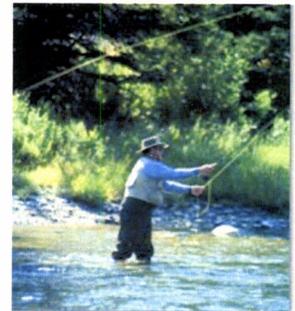


Culvert installed to prevent sediment from entering the



A logger putting in an undercut to fell this tree.

- roads would be repaired to drain water off the surface of the road, make roads safer to drive, and lessen the chance that the quality of the stream water would be jeopardized;
- depending on which alternative is chosen, 1.8 miles to 4.0 miles of road would be constructed (all roads would be closed after harvesting);
- 3.3 miles of road would be reconstructed and the replacement of 3 culverts under both action alternatives;
- all roads used for hauling would be improved to meet Montana Best Management Practice standards;
- the ponderosa pine species would be restored through the use of harvesting and fire; and
- the current coverytype would be converted to a historic coverytype that represents a desired future condition.



Recreation



Limbing felled logs



Money earned from timber sales helps support schools



Harvester

This project may include up to 3 separate timber sales. The first timber sale would likely be sold in the summer of 2003. Road building/improving and logging could stretch over a 3-year period. Money made from the timber would be put into the school trust and used for operating schools. The areas where most of the trees are removed would be prepared to grow new trees. The areas where single trees are cut here and there (thinned) would allow more space for the remaining trees to grow bigger and stronger.



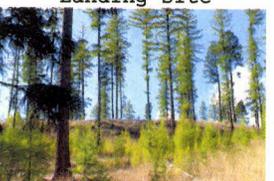
Self loader loading logs



Landing site



Harvested logs, being weighed at the sawmill, will be manufactured into boards and other products.



Seedtrees



Westslope cutthroat trout



White-tailed fawn



Bald Eagle

PUBLIC CONCERNS

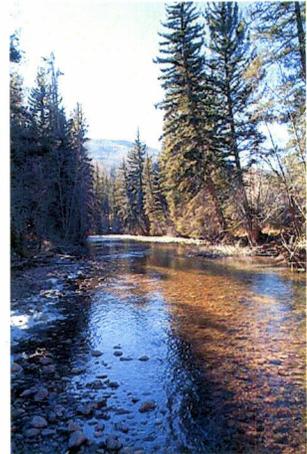
In June 2001, a mailing list was developed and a letter was mailed to the public informing them of the proposed Goat Squeezer Timber Sale Project. We asked people to let us know about their concerns for this project. While we were in the process of developing the timber sale project, a newsletter update was sent to the people on the mailing list. The newsletter again asked people to tell us of their concerns. Their responses helped us plan the timber sale by identifying issues.

By studying these concerns, along with the concerns of other agencies and DNRC employees, we found we needed to further study and explain how the proposed timber sale project would affect the following resources:



Snag in
lodgepole pine forest

- Vegetation (trees)
- Hydrology
- Fisheries
- Wildlife
 - Threatened and Endangered Species
 - Bald eagle
 - Canada lynx
 - Grizzly bear
 - Gray wolf
 - Sensitive Species
 - Flammulated owl
 - Fisher
 - Pileated woodpecker



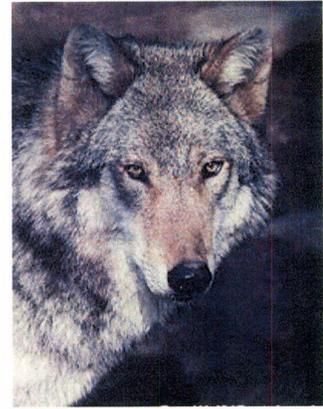
Mountain stream



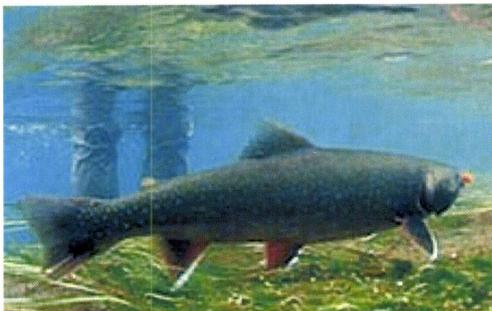
Grizzly bear



Canada Lynx



Gray Wolf



Bull trout



Flammulated Owl



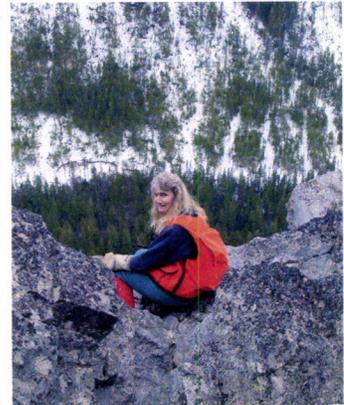
Bald eagles



Pileated woodpeckers

- Big Game Species
 - White-tailed deer
 - Elk
 - Mule deer

- Soils
- Economics
- Recreation
- Air Quality
- Aesthetics (visual)
- Cultural Resources (remains left from historic human activity)



Hunter enjoying the view



Bull elk



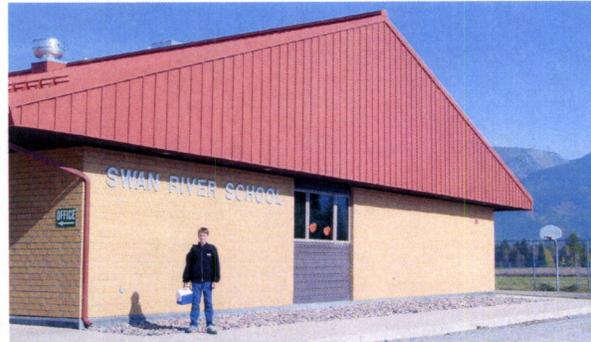
Enjoying the great outdoors



White-tailed buck



Students attending Swan River School



Money earned from timber sales helps support schools



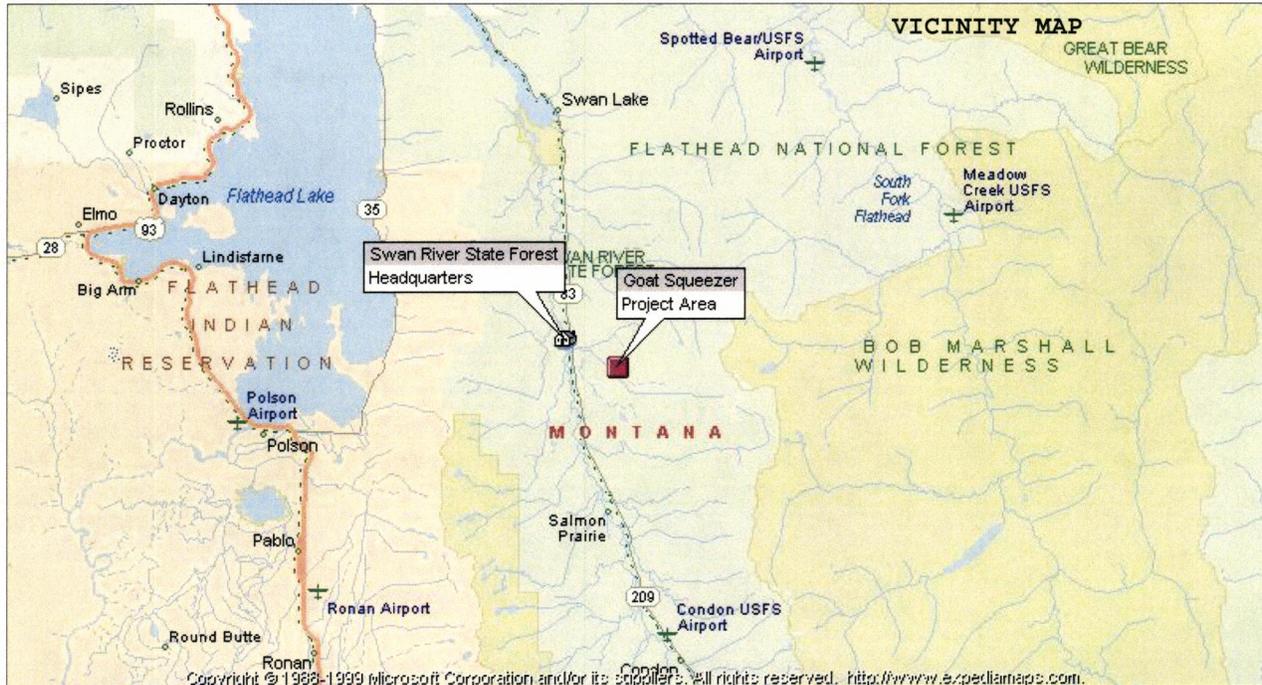
Landscape view



Photograph taken of landscape around 1900

DEVELOPING THE PROJECT AND DISPLAYING THE OPTIONS

An Interdisciplinary Team (ID Team) made up of foresters, an economist, road engineer, hydrologist/soil scientist, fisheries and wildlife biologists, and planning specialists was formed. After studying the concerns, 3 possible choices (alternatives) were developed. Each alternative was designed to address a particular concern or group of concerns.



No-Action Alternative A

As a result of this analysis:

- No trees would be cut.
- No roads would be built or improved.
- Road maintenance, firefighting, recreating, and timber salvaging would continue as it does now.

Action Alternatives B and C

With each action alternative, Swan River State Forest is trying to move our forest stands toward the forest condition that existed before fire suppression and harvesting trees (the historic condition). Therefore, the tree species, distribution of tree species, and age class of the trees that existed historically would be the condition desired for the future.

Approximately 3.3 miles of road would be reconstructed which includes 3 culverts installed and maintained to provide adequate road drainage and minimize the effects to water quality.

The separate action alternatives would also accomplish the following:



A photo of a lodgepole pine timber stand that was taken in the Swan Valley around 1910.

- ***Action Alternative B would:***

- earn approximately \$1,236,330 for the school trust.
- build a total of 4.0 miles of new road, of which 2.3 miles would be permanent, 1.1 miles would be temporary, and 0.6 miles would consist of a permanent road relocation and this would include 2 crossing on non-fish bearing streams.
- reconstruct 3.3 miles of road which includes 3 culvert replacements.
- harvest in stands that are classified as old growth.
- harvest approximately 13.4 million board feet (approximately 3,500 log truck loads) of timber from 2,444 acres.
- use harvest methods that include commercial thin, seedtree, individual-tree selection, group selection, shelterwood, and sanitation.
- concentrate on harvesting trees with insect and disease problems, those considered to be at high risk for insect and disease, shade-tolerant species (grand fir, Engelmann spruce, subalpine fir, western redcedar), and the removal of some dead trees.

- ***Action Alternative C would:***

- earn approximately \$817,800 for the school trust.
- build a total of 1.8 miles of new road of which 1.0 mile would be permanent, 0.7 miles would be temporary, and 0.6 miles would consist of permanent road relocation and this would include 2 crossings on non-fish bearing streams.
- reconstruct 3.3 miles of road which includes 3 culvert replacements.
- harvest approximately 10.2 million board feet (approximately 2,500 log truck loads) of timber from 1,866 acres.
- use harvest methods which include commercial thin, seedtree, individual tree selection, group selection, shelterwood, and sanitation.
- concentrate on harvesting trees with insect and disease problems, those considered to be at high risk for insect and disease, shade-tolerant species (grand fir, Engelmann spruce, subalpine fir, western redcedar), and the removal of some dead trees.



Approximately 6 to 8 western larch and Douglas-fir trees would be left per acre in seedtree units.

- ***Differences between Action Alternatives B and C:***

- the amount of money earned for the trust,
- total acres harvested,
- the amount of board feet harvested,
- miles of road built for permanent or temporary purposes, and
- Action Alternative B proposes harvesting in old-growth stands and Action Alternative C does not.



Some large western larch would be left for seed.

SUMMARY OF EFFECTS

The ID Team studied how the 3 alternatives would affect the resources (water, wildlife, etc.), previously listed. The following summary tells how the resources would be affected if the project does or does not take place.

VEGETATION

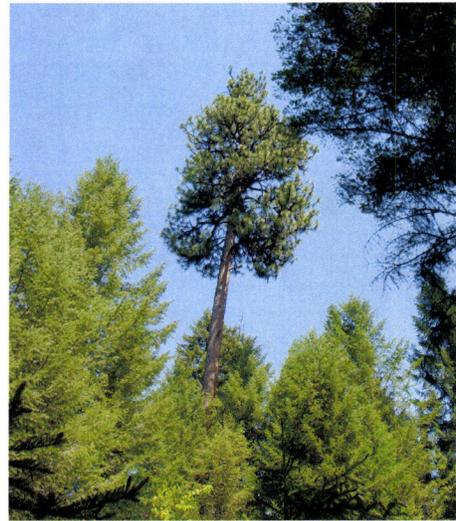
Swan River State Forest contains a mix of tree species that is different than would be expected if fire had continued to burn in natural cycles. Currently, the forest contains many more acres of shade-tolerant species (grand fir, Engelmann spruce, subalpine fir, western redcedar) than would have been present with normal fire cycles. The average number of trees per acre is higher and their ages older than if fires had occurred. The current levels of density provide enough fuel for fires to burn hotter and more severe than they would have historically.

Swan River State Forest is also experiencing many problems with insects and diseases. There is mortality occurring within the Douglas-fir trees due to the Douglas-fir bark beetle and root rot. Other diseases affecting the forest include white pine blister rust, western larch dwarf mistletoe, and indian paint fungus. Trees that are heavily affected by these insects and diseases are the trees that would be selected for harvest.

The majority of the stands selected for harvest would be thinned. Some stands would be thinned more than others, depending on the needs of that stand. By thinning these stands, the remaining trees would have more room to grow, which contributes to make trees healthier in general. Generally, western larch, ponderosa pine, and Douglas-fir would be chosen to be left in the stand. Harvested areas would be regenerated naturally and by planting. Due to problems with white pine blister rust, only western white pine that has resistance to this disease would be planted.

HYDROLOGY AND FISHERIES

Under both action alternatives, the proposed timber harvest would not increase sediment to streams, except possibly during culvert installation; stream sediment could harm fish. Both action alternatives would improve the existing roads. The new roads would be designed to allow water to drain from the roads during snowmelt and rainstorms, but would not be carried to creeks where fish spawn. Grass seed would be planted in exposed soil along roads to stabilize the soil and prevent it from entering creeks. The planted grass would also help prevent weeds from growing along the roads.



Predominant covertypes would be different if fire had been able to play its natural role.



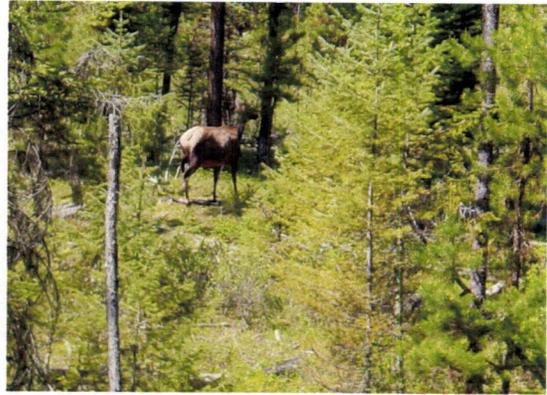
Actions are taken to make sure sediment and debris do not flow into creeks like this.

WILDLIFE

Threatened and Endangered Species - With the action alternatives, use of the project area by wintering bald eagles and gray wolves could decrease because of big game population declines due to the removal of thermal cover proposed under the action alternatives. Use by nesting bald eagles, Canada lynx, and grizzly bears are not expected to change substantially.

Sensitive Species - Under both action alternatives, improvement in habitat conditions for flammulated owls would be minor, while there would be a minor reduction in habitat for fishers. Both action alternatives could result in important reductions of pileated woodpecker nesting habitat. Action Alternative B would result in greater changes to these species' habitats than Action Alternative C.

Big Game Species - The action alternatives would remove much of the remaining important thermal cover in the winter range. These effects could result in a substantial reduction of the number of big game animals, primarily white-tailed deer, that the winter range could support. These effects would increase in severe winters. Action Alternative B would result in greater effects to big game than Action Alternative C.



Cow elk

ECONOMICS

If Action Alternative B were chosen, approximately \$1,236,330 would be earned for the school trust. That is enough money to pay the cost of sending 204 Montana children to public school for 1 year. Action Alternative C would earn approximately \$817,800, enough to pay the cost of sending 135 children to public school for 1 year. No-Action Alternative A would earn no money for the school trust.



Money earned by selling timber sales on State trust land help educate students grades kindergarten through 12.

VIEW (AESTHETICS)

Action Alternatives B and C would change views of the forest. You would see new openings with fewer trees, logging slash, and some bare soil from roads that are close to logging activities. You would see hillsides with fewer trees from roads that are far away. Views would gradually change over the years as plants and new trees grow.

GOAT SQUEEZER TIMBER SALE PROJECT TIME LINE

➤ DEIS out for public review	January	2003
➤ DEIS public review completed	February	2003
➤ Final EIS completed	March	2003
➤ Record of Decision	April	2003
If Action Alternative B or C were selected:		
➤ Contract package	April	2003
➤ Sale package to NWLO	May	2003
➤ Sale package to Division	June	2003
➤ Sale package to Land Board	July	2003
➤ Timber Sale Contract A Advertising	July	2003
➤ Bid opening	August	2003
➤ Harvesting would begin	September	2003
➤ Timber Sale Contract B		2004
➤ Timber Sale Contract C		2005

INFORMATION AND OVERVIEW OF THE FEIS

The Executive Summary of the Final Environmental Impact Statement (FEIS) is prepared in accordance with the Montana Environmental Policy Act (MEPA) rules. Information in this summary is written so that it is easily understood with the supporting photographs and maps.

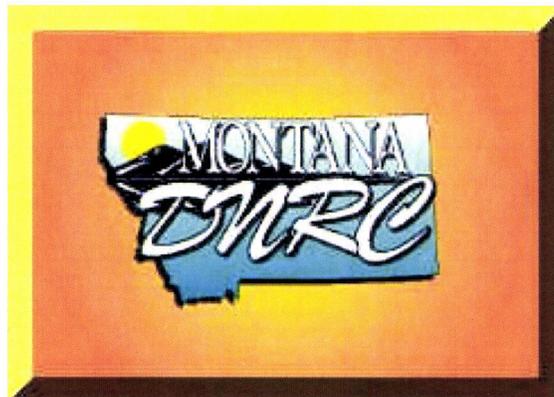
The FEIS contains a more complete description of the purpose, development, analysis, and conclusions of the proposed project. The FEIS also has appendices on specific resources (water quality, wildlife, soil, etc.). The resource appendices were written by the ID Team and include lengthy technical discussions of methodologies, research, the monitoring of baseline data, analyses, etc. The FEIS summarizes the resource appendices in plain language, thus, ensuring that all interested parties, regardless of their scientific or technical abilities, can understand this proposal and its effects.

Because the analysis work required highly advanced technical procedures and terminology, the information in the appendices would need to be utilized for any scientific, technical, or legal review.

To receive a copy of the Goat Squeezer Timber Sale Project FEIS and its resource appendices, contact Karen Jorgenson by calling (406) 754-2301 or writing to Swan River State Forest, 58741 Highway 83, Swan Lake, Montana 59911. The documents are also available at the www.dnrc.state.mt.us website.

The FEIS and appendices will be sent to those that have responded to the DEIS. A summary will be sent out to everyone on the DEIS mailing list. If you would like a copy of all the documents please contact the Swan River State Forest. At least 15 days following publication of the FEIS, Robert Sandman, Decision Maker, will choose an alternative or a combination of alternatives. This decision will be recommended to the State Board of Land Commissioners. The Land Board has the ultimate decision responsibility.

Copies of this document with its appendices were published at an approximate cost of \$3.94 per copy for printing and \$3.60 for mailing.



**DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
SWAN UNIT OFFICE - SWAN RIVER STATE FOREST
58741 HIGHWAY 83 SOUTH
SWAN LAKE, MT 59911
(406) 754-2301**

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