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## Little Blacktail Ecosystem Restoration Project Final Environmental Impact Statement

### Summary

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#### CHANGES FROM THE DRAFT TO THE FINAL

The Draft Environmental Impact Statement (DEIS) was mailed on July 23 and 24, 2001 to 41 individuals, agencies and groups for review. The Draft EIS presented specific information on the proposal, the alternatives to the proposal, and the results of analysis of the information gathered. During the public comment period a total of 7 comment letters were received. The responses to public input can be found in Appendix I of the FEIS. The comments were used to further analyze the proposed action, develop new mitigation and issues, and prepare the Final EIS.

Highlights of changes made to **Alternative B – Selected Alternative** (*Proposed Action*) as a result of comments received are:

- The proposed action was modified reducing the amount of road construction by 0.2 mile and to change some of the road locations. All newly constructed roads would be considered temporary and would be decommissioned after use. This change was a result of new field information and comments received
- Design criteria have been added to avoid potential resource damage from temporary roads that may remain on the landscape until post-sale activities are completed (possibly five to eight years).
- Unclassified roads used during timber harvest would be decommissioned after use.
- Finances have been added as an analysis issue.

#### INTRODUCTION

The Little Blacktail Ecosystem Restoration Project proposes to conduct vegetation treatments on National Forest lands in the Sandpoint Ranger District. The project area for this proposal is located on National Forest System lands in Sections 14, 15, 22, 23, 26 and 27 of T55N, R2W, Boise Meridian, Bonner County, Idaho (see FEIS Chapter I, Figure 1).

#### PURPOSE AND NEED FOR ACTION

The purpose and need for the Little Blacktail project was derived from broader scale assessments described in Chapter I and from field reviews and surveys of resources in the project area and the surrounding Cocolalla Creek drainage. Based on this information we have developed five main objectives:

To improve the health and productivity of terrestrial and aquatic habitats by:

- *Restoring desired forest cover, structure and pattern, and species composition where they are outside natural or accepted ranges.*
- *Providing for wildlife habitat diversity.*
- *Restoring fire as an ecological process.*
- *Reducing the risk of destructive wildfire around the microwave sites at the top of Little Blacktail Mountain and the powerline corridor that serves the electronic equipment.*
- *Maintaining or improving Cocolalla Creek's aquatic habitat by reducing existing and potential sediment risks.*

## PROPOSED ACTION

A “proposed action” was defined early in the project planning process. This proposal serves as a starting point for the interdisciplinary team and gives the public and other agencies specific information on which to focus comments. Using these comments and information from preliminary analysis, the interdisciplinary team then develops alternatives to the proposal. These are discussed in detail in Chapter II.

The Proposed Action would be the first step in a long-term management strategy to meet goals of improving terrestrial and aquatic ecosystems within the Little Blacktail area.

To accomplish these objectives, activities in the Little Blacktail Project would include:

1. Vegetation restoration, which would include selective and regeneration cutting methods.
2. Burning to reduce fuels, to reduce the risk of destructive fire around the microwave sites, and to improve growing conditions.
3. Improving the design and drainage of existing roads.

An additional opportunity of this project is to initiate visual rehabilitation of an existing clearcut on the northwest side of Little Blacktail Mountain. This clearcut does not meet Forest Plan Visual Quality Objectives (VQOs). Initiating visual rehabilitation would help move the VQO toward Forest Plan objectives.

## ISSUES

Issues are concerns raised about the effect of a proposed action on the forest resources or the human environment that depend on the ecosystem where the proposal is to occur. Two levels of issues are used in this analysis.

- **Key issues** are those within the scope of the project and of sufficient concern to drive the development of alternatives to the Proposed Action. The issues are specific to this geographic area and proposal, and provide a good comparison between alternatives during analysis. Only one key issue was identified.

- **Analysis issues** were not key in developing alternatives but are important for their value to design specific protective measures and to measure the effects of the alternatives on different forest resources.

The Interdisciplinary Team identified indicators for each issue to measure how the issue was affected by each alternative. Each issue may have more than one indicator, depending on its complexity. Issue indicators were selected for their ability to show the differences among alternatives.

### Key Issue

***Road Management and the effects of road construction and road work on sediment delivery to streams, aquatic habitat, wildlife habitat, and noxious weed spread*** - Some people objected to road construction because of potential effects on forest resources such as water quality and wildlife habitat. Similarly, some supported road closures and obliteration to protect resources such as water quality, fisheries, wildlife, and noxious weed prevention. Other people expressed concern about leaving open roads open and not closing any additional roads with the project area. Some expressed support for any additional access that might be provided by this project. Indicators used to evaluate each alternative in relation to this issue include (1) road construction – miles of road constructed, (2) road reconstruction – miles of road work done, and (3) road access – change in miles of open classified road after project completion

### Analysis Issues

As a result of comments received from the Draft EIS a new issue has been added to analysis issues– Finances. The issue statement and indicators for this issue can be found at the end of this section.

- ***Effects of project activities on forest vegetation*** - The issue indicators used to measure the effect of project activities on forest vegetation include acres and percent change in vegetation structure and cover type and changes in patch size, weighted edge density, and mean core area. These indicators and their importance are described in Chapter III - Vegetation.
- ***Effects of project activities on Threatened, Endangered and Sensitive (TES) plants*** – The indicator for this issue is the relative amount of canopy opening and/or ground disturbance in and next to known plant populations or suitable habitat.
- ***Risk of project activities on the spread of existing noxious weed populations and introduction of new weed invaders*** – The indicator for this issue is the relative amount of canopy opening and/or ground disturbance.
- ***Effects of vegetation prescriptions on risk of a destructive fire around the microwave sites and powerline*** - Indicators used to measure project effects related to this issue include reduction of potential for destructive crown fire as measured by flame lengths and fire intensity, ability to suppress an unwanted fire as measured by flame length and fire intensity,

and acres of the project area where fuels have been treated and their proximity to the microwave site and poweline.

- ***Effects of prescribed burning on air quality*** - The indicator for this issue is the production of particulate matter from smoke emissions.
- ***Changes in wildlife habitat related to sensitive and management indicator species*** - Issue indicators include trend toward suitable nesting habitat conditions for goshawks, trend toward suitable habitat conditions for flammulated owl, changes in distribution and quality of snag habitat for blackbacked woodpeckers, and changes to suitable nesting habitat for pileated woodpeckers.
- ***Effects of project activities on sediment delivery in Cocolalla Creek*** – Issue indicator used for analysis is the estimated sediment delivery to stream channels.
- ***Effects of vegetation prescriptions on visual quality*** - The alternatives were evaluated to determine whether activities proposed under the action alternatives would achieve visual quality objectives.
- ***Effects of project activities on Finances*** - The issue indicators include predicted high bid rate per hundred cubic feet and total predicted high bid values.

## ALTERNATIVES CONSIDERED

Nine alternatives were considered for this project and three were carried forward. The six alternatives eliminated from detailed study can be found in Chapter II of the FEIS. The three alternatives carried forward include the No-Action Alternative required by NEPA and NFMA, and two action alternatives. The action alternatives were developed based on the key issue discussed above, with design features related to the analysis issues and public concerns.

**Alternative A** is the No-Action Alternative, under which there would be change from current management direction or from the level of management intensity in the area. No timber harvest, reforestation, road construction or road work would be initiated at this time. This alternative provides the basis for which to compare effects of action alternatives. It does not meet the purpose and need for reasons described in Chapter I of the FEIS.

**Alternative B** is the **Selected Alternative** and is the *Proposed Action* as described above and in Chapter II of the FEIS. Timber harvest (both regeneration and selective harvests), road construction and road work, and fuels treatment (using harvest, burning, and mechanical methods) would occur. Approximately 5.4 miles of new temporary road would be constructed and decommissioned after use. Approximately 0.8 mile of classified roads would be put into long-term storage and 0.7 mile of unclassified roads would be decommissioned. Those roads placed in storage status would remain as classified roads on the transportation system.

**Alternative C** would not build any new roads. This alternative would respond to the purpose and need with the same harvest treatments as Alternative B, but without new road construction. In the absence of new roads, logging systems for some stands would be changed.

### **Design Features Common to Alternatives B and C**

After reviewing public comments and analyzing the potential effects of proposed activities, specific design features were identified to reduce and mitigate potential impacts to natural resources of concern. These features would be incorporated into the project design, timber sale contract, and other contracts and project plans. A list of resources to be protected follows. See Chapter II for the specific protection measures.

- Features Related to Vegetation Management
- Features Designed to Protect Water and Fish Habitat
- Features Designed to Protect Air Quality
- Features Designed to Protect Soil and Site Productivity
- Features Designed to Protect Heritage Resources
- Features Designed to Protect Threatened, Endangered, Sensitive and Rare Plants
- Features Designed to Prevent the Spread of Noxious Weeds
- Features Designed to Protect Scenery and Visual Quality
- Features Designed to Protect Trails
- Features Related to Roads and Access Management
- Features Related County Roads
- Features Related to Temporary Roads

### **DECISION CRITERIA**

This environmental impact statement is not a decision document. The FEIS discloses the environmental consequences of implementing the proposed action or alternatives to that action. The Forest Supervisor is the Deciding Official for this project. Her decision and the rationale for that decision are stated in the Record of Decision. The Forest Supervisor will select an alternative for implementation based on how well the alternative: (1) addresses the Purpose and Need, (2) protects resources (3) addresses key issues and public concerns, (4) is consistent with applicable laws, plans and policies.

### **ENVIRONMENTAL EFFECTS**

A summary of the determination of environmental effects for the alternatives considered in detail is presented in the following table. The effects analysis for the issues discussed above is presented in the FEIS Chapter III –Affected Environment and Environmental Consequences.

<b>Issue Indicator - Vegetation</b>	<b>Alternative A</b>		<b>Alternative B</b>		<b>Alternative C</b>
<b>EFFECTS OF PROJECT ACTIVITIES ON FOREST VEGETATION</b>					<b>Acres/Percent</b>
<b>Vegetation Structure</b>	<b>Acres</b>	<b>Percent Change</b>	<b>Acres</b>	<b>Percent Change</b>	Values are the same as Alternative B
Early Succession	491	+13	718	+24	
Immature Forest	1419	-12	1243	-21	
Mature Forest	229	-1	178	-3	
Old Growth	0	0	0	0	
Total	2139		2139		
<b>Cover Type</b>					Values are the same as Alternative B
Douglas-fir	1596	0	1025	-27	
Grand fir/Hemlock	135	0	135	0	
Western Larch	95	0	123	+2	
Cedar	190	0	190	0	
Ponderosa pine	0	0	291	+14	
No trees	0	0	0	0	
Lodgepole pine	25	0	25	0	
White pine	98	0	350	+11	
Total	2139		2139		
<b>Changes in patch size, weighted edge density, and mean core area</b>	Mean patch size, weighted edge density and mean core area of the early succession stage would increase, while those same features of immature and mature stages would decrease.		Mean patch size, weighted edge density and mean core areas of early succession stage would increase while reducing those related to immature and mature stages. The trend to larger mean patch size for the early succession stage is a trend toward the historic range.		Same as Alternative B

Issue Indicator – TES Plants	Alternative A	Alternative B	Alternative C
<p><b>EFFECTS OF PROJECT ACTIVITIES ON THREATENED, ENDANGERED, SENSITIVE PLANTS</b></p> <p>Relative amount of canopy opening and ground disturbance in and next to known plant populations or suitable habitat.</p>	<p>No impacts to any TES or Forest species of concern or suitable habitat.</p>	<p>All highly suitable wet forest habitats would be buffered. Undetected individual moonwarts could be impacted; however, these impacts would not lead to the listing or loss of population or species viability.</p>	<p>Same as Alternative B with regards to canopy opening but slightly less risk of impacts with less ground disturbance due to lack of road construction.</p>

Issue Indicator – Noxious Weeds	Alternative A	Alternative B	Alternative C
<p><b>RISK OF PROJECT ACTIVITIES ON THE SPREAD OF EXISTING NOXIOUS WEED POPULATIONS AND INTRODUCTION OF NEW WEED INVADERS</b></p> <p>Relative amount of ground disturbance</p>	<p>No change in the risk or rate of weed spread.</p>	<p>There is a risk of weed spread from ground-disturbing activities. The risk of introduction and establishment of new weed invaders to the project area is expected to be low. Prescribed fire and road construction may increase the spread of goatweed and spotted knapweed (both considered naturalized in the watershed) following treatment activities.</p>	<p>Similar to Alternative B but slightly less risk of weed spread because no new roads would be constructed</p>
<p>Amount of canopy removal</p>	<p>No canopy removal.</p>	<p>Oxeye daisy has a low to moderate potential for spread.</p>	<p>Same as Alternative B</p>

Issue Indicator – Fire and Fuels	Alternative A	Alternative B	Alternative C
<p><b>EFFECTS OF VEGETATION PRESCRIPTIONS ON RISK OF A DESTRUCTIVE FIRE AROUND THE MICROWAVE SITES AND POWERLINES</b></p> <p>Reduce potential for destructive crown fire as measured by flame lengths and fire intensity</p>	<p>Fuel configurations would change over time, which would increase the amount of available fuel and lead to more destructive fires with higher intensities. This increase would put the microwave towers and powerlines at a higher risk of burning.</p>	<p>This alternative would reduce the ladder fuels, flame lengths, and fire intensities which would effectively reduce the potential for crown fires within treated areas.</p>	<p>Same as Alternative B</p>
<p>Ability to suppression an unwanted fire as measured by flame length and fire intensity</p>	<p>Flame length – over 8 feet                      Fire intensity – just under 600 BTUs/foot/second                      Given this situation fire activity is unpredictable and heavy equipment would be required to fight any fires ignited within the area.</p>	<p>Flame length – less than 2 feet                      Fire intensity - less than 20 BTUs/foot/second                      Given this situation hand crews can be effective on fires of this nature. The risk of a crown fire would be reduced.</p>	<p>Same as Alternative B</p>
<p>Acres of the project area where fuels have been treated and their proximity to the microwave site.</p>	<p>None</p>	<p>772 acres underburned                      256 acres grapple piled                      194 acres limb and lop tops                      9 acres yard tops                      All treatments are to be accomplished over a large contiguous area around the microwave towers.</p>	<p>777 acres underburned                      222 acres grapple piled                      223 acres limb and lop tops                      9 acres yard tops                      All treatments are to be accomplished over a large contiguous area around the microwave towers</p>

Issue Indicator – Air Quality	Alternative A	Alternative B	Alternative C
<p><b>Effects of prescribed burning on air quality</b></p> <p>Production of particulate matter from smoke emissions</p>	<p>In a simulated wildfire situation the total PM<sub>10</sub> and PM<sub>2.5</sub> emissions would generate over 395 tons per year.</p>	<p>This alternative would generate roughly 200 tons of PM<sub>10</sub> and PM<sub>2.5</sub> emissions per project. However, given the 3-5 year time frame for fuel activities the annual expected air emissions would be 40-70 tons per project per year.</p>	<p>Same as Alternative B</p>

Issue Indicator - Wildlife	Alternative A	Alternative B	Alternative C
<p><b>CHANGES IN WILDLIFE HABITAT</b></p> <p><u>Goshawk</u> – trend toward suitable nesting habitat conditions</p>	<p>Would not trend toward suitable nesting habitat conditions.</p>	<p>Would begin trending toward suitable nesting habitat conditions.</p>	<p>Same as Alternative B</p>
<p><u>Flammulated owl</u> – trend toward suitable habitat conditions</p>	<p>Would not trend toward suitable habitat conditions.</p>	<p>Would begin trending toward suitable habitat conditions.</p>	<p>Same as Alternative B</p>
<p><u>Blackbacked woodpecker</u> – changes in distribution and quality of snag habitat</p>	<p>Increase long-term snag densities and provide nesting/foraging opportunities.</p>	<p>Would increase the occurrence of large snags to longer-lived tree species over the long-term. Short-term reduction in availability of snag habitat for both foraging and nesting.</p>	<p>Same as Alternative B</p>
<p><u>Pileated woodpecker</u> – changes to suitable nesting habitat</p>	<p>Snag production would shift away from the larger, longer-lived species, affecting the long-term stability and persistence of large snag habitat.</p>	<p>Short-term reduction in habitat quantity, converting tree species composition to longer-lived species, which would encourage the persistence and sustainability of large snag habitat over the long-term.</p>	<p>Same as Alternative B</p>

<b>Issue Indicator - Aquatics</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>
<b>CHANGES IN SEDIMENT ENTERING COCOLALLA CREEK</b>  Total estimated sediment delivery	7.9 tons per year	3.3 tons per year initially (Road work and decommissioning would reduce this value over time to the same as Alternative C)	3.1 tons per year

<b>Issue Indicator – Roads</b> <b>EFFECTS OF ROAD MANAGEMENT, CONSTRUCTION AND ROAD WORK ON SEDIMENT DELIVERY TO STREAMS, AWUATIC HABITAT, WILDLIFE HABITAT, AND NOXIOUS WEED SPREAD</b>	<b>Alternative A - No Action</b>			<b>Alternative B - Proposed Action</b>			<b>Alternative C - No new roads</b>		
	<b>Unclassified</b>	<b>Classified</b>	<b>Total</b>	<b>Unclassified</b>	<b>Classified</b>	<b>Total</b>	<b>Unclassified</b>	<b>Classified</b>	<b>Total</b>
Miles of roadwork	0	0	<b>0</b>	0.7	12.8	<b>13.5</b>	0.7	12.8	<b>13.5</b>
Miles of temporary roads constructed and decommissioned	0	0	<b>0</b>		5.4	<b>5.4</b>	0	0	<b>0</b>
Miles of existing open (drivable) road*	0.4	8.0	<b>8.4</b>	0	8.0	<b>8.0</b>	0	8.0	<b>8.0</b>
Miles of existing non-drivable roads	0.3	4.8	<b>5.1</b>	0	4.8	<b>4.8</b>	0	4.8	<b>4.8</b>
Miles of existing road decommissioned	0	0	<b>0</b>	0.7		<b>0.7</b>	0.7		<b>0.7</b>
Miles of existing road put in storage	0	0	<b>0</b>		0.8	<b>0.8</b>		0.8	<b>0.8</b>
Net change in road access	0	0	<b>0</b>	-0.4	0	<b>-0.4</b>	-0.4	0	<b>-0.4</b>

\*does not include roads open to ATVs

Issue Indicator – Visual Quality	Alternative A	Alternative B	Alternative C
<p><b>EFFECTS OF VEGETATION PRESCRIPTIONS ON VISUAL QUALITY</b></p> <p>Evaluation of alternatives to determine whether activities proposed under the action alternatives would achieve visual quality objectives</p>	<p>No change to the existing condition</p>	<p>Assigned Visual Quality Objectives would be met. The visual quality objective of the existing clearcut on the northwest side of Little Blacktail Mountain would begin moving toward the assigned Forest Plan objective.</p>	<p>Same as Alternative B</p>

Issue Indicator – Finances	Alternative A	Alternative B	Alternative C
<p><b>EFFECTS OF PROJECT ACTIVITIES ON FINANCES</b></p> <p>Predicted high bid rate per hundred cubic feet</p>	<p>0</p>	<p>\$70.81/ccf</p>	<p>\$49.73/ccf</p>
<p>Predicted high bid values</p>	<p>0</p>	<p>\$793,072</p>	<p>\$556,976</p>