



United States  
Department of  
Agriculture



Forest Service

November 2008

# Environmental Assessment

## Sled Springs OHV Trail System and Road Management Plan

**Wallowa Valley Ranger District  
Wallowa-Whitman National Forest  
Wallowa County, Oregon**

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# **Chapter 1 - Purpose of and Need for Action**

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The Wallowa-Valley District Ranger is proposing to establish an Off-Highway Vehicle (OHV) trail system and manage motorized access within the 38,283-acre Sled Springs Area. Refer to Figure 1 for a vicinity map. The proposal is referred to as the Sled Springs OHV Trail Proposal and Road Management Project (Sled OHV Project).

The chapter begins with an explanation of the purpose and need for action and a statement of the proposed action developed to meet that purpose and need. The chapter also addresses the decision framework, outlines applicable management direction, and identifies the analysis area and location of the analysis file. The chapter closes by listing the issues identified during scoping and by summarizing the scoping process.

## **Purpose of and Need for Action**

The Wallowa-Valley District Ranger has identified a purpose and need for motorized trail opportunities and managed road access in the Sled Springs Area. The purpose and need for action is based on management direction in the Wallowa-Whitman National Forest Land and Resource Management Plan (Forest Plan) to provide for a wide variety of recreation opportunities in an attractive setting and to make those opportunities available to all segments of society (Page 4-38).

The purpose and need is represented by the difference between the area's desired and existing conditions with respect to the management direction for the area.

## **Desired Condition**

Desired conditions are defined by a Final Rule for OHV Travel issued by the Washington Office on November 2, 2005 and by the Forest Plan. The Final Rule provides general direction to assess and limit OHV cross-country travel and to designate acceptable motorized routes in appropriate areas. Local Forest Service managers are given a four-year period to implement this rule across the National Forests.

More specifically, basic recreation, road, wildlife, and other resource conditions are defined by the Forest Plan for each Management Area. The Sled Springs Area contains Forest Plan allocations of Timber Emphasis (Management Area 1), Timber/Big Game Emphasis (Management Area 3), and Old Growth Emphasis (Management Area 15). Refer to Figure 1 for the location of these management areas. Desired recreation and motorized access conditions for each management area are described below.

**Recreation** - For Management Area 1, desired recreation conditions are for Roaded Natural and Roaded Modified recreation opportunities (Forest Plan, Page 4-58). These classifications allow for conventional motorized use, which is incorporated into construction

standards and design of facilities (Forest Plan, Glossary, Page 37). For Management Area 3, desired recreation conditions are the same as for Management Area 1 (Page 4-62). For Management Area 15, desired recreation conditions are not specifically prescribed by the Forest Plan, although the plan does close these areas to firewood cutting (Page 4-90).

**Motorized Access** – For Management Area 1, desired road conditions are to generally not exceed 2.5 miles per square mile of open road.

For Management Area 3, desired road conditions are variable, depending on the use of the area as summer or winter range. Where big-game use the area in the summer, open road densities will normally be maintained at 1.5 miles per square mile. Where big-game use is in the winter and the area is closed to public use by snow, additional closures to meet the 1.5 miles per square mile standard will not be necessary (Page 4-62). For purposes of this analysis, a standard of 2.5 miles per square mile would be appropriate because these areas are closed to motorized use by snow in the winter.

For Management Area 15, desired road conditions are to avoid new road construction through old growth stands. Existing roads will be managed to retain the old-growth characteristics of the area, including solitude (Page 4-90).

## Existing Condition

For areas within Management Area 1, 3, and 15, motorized trail use occurs throughout the area and is only limited by steep topography in the canyonlands. Until the Final Rule on OHV travel is implemented, the Forest Service is authorized to restrict cross-country motorized access only if specific resource damage can be documented. Citations have not been issued for such specific damage in the Sled Springs area, although this may be a matter of proper enforcement officials being present when resource damage is occurring. Some roads have been closed to full-sized vehicles through barriers at the entrances, but in many cases, these closures can be negotiated by OHVs. Although the area is mapped as Roaded Natural, the extent of available motorized access in the area places the existing condition toward the Roaded Modified end of the spectrum.

When considering standard-sized vehicles, open-road densities for the subwatersheds that include the Sled Springs area shown in the following table for Management Areas 1 and 3. The scattered nature of Management Area 15 gives little meaning to open road density calculations. However, some open roads exist adjacent to Management Area 15 blocks.

**Table 1 – Existing Open Road Densities by Subwatershed**

Subwatershed	Open Road Densities for Management Areas 1 and 3 (miles/square mile)
Buck Creek	3.06
Middle Mud Creek	1.97
Tope Creek	2.76
Upper Courtney Creek	2.06
Upper Mud Creek	3.28
Average for all subwatersheds	2.72



## **Proposed Action (Alternative 2)**

The Wallowa Valley District Ranger proposes to establish an OHV trail system and manage motorized access within the Sled Springs Area. The proposed action is represented by Alternative 2 in Chapter 2. Refer to Pages 9-10 for a description of the proposed action.

## **Decision Framework**

The decision framework refers to the nature of the decision that will be made by the Wallowa Valley District Ranger based on the analysis contained in this document and the comments submitted during the public review and comment period for this Environmental Assessment. The decision framework does not describe the actual content of the District Ranger's pending decision.

At the conclusion of the public review and comment period, the Wallowa Valley District Ranger will decide whether to implement management of the Sled Springs Area as proposed, to implement management in a modified fashion, or not to implement management at all. The District Ranger's decision will also determine if the project might require amendment of the Forest Plan and whether the decision constitutes a significant impact on the human environment. Implementation of the decision is anticipated in Summer of 2009.

A decision will be made on which alternative is selected. Selection of alternatives will be based on the analysis contained in the Environmental Assessment or Environmental Impact Statement (if preparation of an EIS is warranted). Factors on which a decision to implement the alternatives is based would include how the alternatives meet the purpose of and need for action, respond to the key issues, consider the environmental effects, comply with the Forest Plan, and respond to public comments.

## **Analysis Area**

The Sled Springs Area is located north of Enterprise, Oregon, within the Wallowa Valley Ranger District of the Wallowa-Whitman National Forest. The Sled Springs Area encompasses approximately 38,283 acres of National Forest and interspersed private land. The analysis area contains portions of the Grande Ronde River - Mud Creek Watershed and includes the following major tributaries: McAllister Creek, Mud Creek, Buck Creek, Tope Creek, Sled Creek, Evans Creek, and Courtney Creek

The Tope Creek Inventoried Roadless Area occurs within the analysis area. This 8,674-acre area was considered in the Forest Plan (Appendix C, Page 49) for wilderness potential, with the conclusion that its narrow, relatively small sized, irregular configuration and many miles of boundary, make its manageability for wilderness difficult. An existing

unauthorized road (3030-179) out Washboard Ridge extends approximately 1 mile into the Inventoried Roadless Area. Refer to Figure 1 for a vicinity map.

## **Management Direction**

Management direction is derived from the Wallowa-Whitman National Forest Land and Resource Management Plan (Forest Plan) and FEIS, as amended which incorporates PacFish, InFish, and the Wallowa-Whitman Integrated Noxious Weed Management Plan.

## **Analysis File**

The analysis file that supports this Environmental Assessment is available at the Wallowa Valley Ranger District in Enterprise, Oregon.

## **Public Involvement**

### **Proposal Development and Scoping**

Since 1997, Wallowa Valley Ranger District personnel have been discussing the development of an OHV trail system. In conjunction with a local OHV riding club, the Wallowa Valley Trail Riders Association, several potential areas on National Forest lands in Wallowa County were explored. Because of congressional designations for the Hells Canyon and Eagle Cap Wildernesses and the Hells Canyon National Recreation Area, the areas where an OHV trail system would be consistent with laws, regulations, and management direction were limited to the Wallowa Valley Ranger District. Three areas on the district with the proper size and topography for an OHV trail system were identified: Upper Joseph, Salt Creek Summit, and Sled Springs. Watershed-based community planning for the Upper Joseph Watershed was initiated in 2000 by the Wallowa County Natural Resources Advisory Committee. The Upper Joseph area was discussed in detail regarding OHV trail opportunities. Due to concerns for big-game populations by Oregon Department of Fish and Wildlife (ODFW) and for tribal hunting patterns by the Nez Perce Tribe, the Upper Joseph Area was determined to be a poor location for OHV trail opportunities. Both ODFW and the Nez Perce Tribe agreed that the Sled Springs Area had fewer conflicts for establishing an OHV trail system than the Upper Joseph Area. The Salt Creek Area was considered a potential area for future trail proposals. The Wallowa Valley Trail Riders were engaged in these conversations, and agreed to investigate trail-riding opportunities in the Sled Springs area.

The project interdisciplinary team formed and conducted a Roads Analysis for the Sled Springs area. This analysis determined the benefits and risks associated with each road and concluded with recommendations for each road. The roads analysis is contained in the

analysis file. Based on the roads analysis and recommendations from the Wallowa Valley Trail Riders, a proposed action was developed.

Public scoping for the Sled OHV Project was initiated in July 2003 with the project's inclusion on the Summer 2003 Schedule of Proposed Actions mailed from the Wallowa-Whitman National Forest Office in Baker City, Oregon. On February 17, 2005, a scoping letter was mailed to over 280 individuals, organizations, and agencies for their comment on the proposed action. These individuals and organizations included recreation interests, grazing permittees, State and Federal resource management agencies, and other special interest organizations. Letters were also sent to staff members of the Nez Perce Tribe and Confederated Tribes of the Umatilla.

Coordination with Oregon Department of Fish and Wildlife was conducted for this proposal throughout the Upper Joseph Creek Community Watershed Analysis process. The proposal was presented to the Wallowa County Natural Resources Advisory Committee at their February 8, 2005 Technical Committee meeting.

These scoping efforts generated responses from 15 agencies, organizations, tribes, or individuals. Responses are documented in 12 letters, as well as several e-mails, telephone conversation records, and meeting notes.

To clarify the concerns, follow-up telephone conversations, meetings, and e-mails were made between the Interdisciplinary Team and those who submitted comments. Much of the correspondence focused on what information should be provided in the EA. Information obtained from the scoping process is contained in the Sled OHV Project Analysis File.

## Key Issues

Issues that could best be addressed by forming an alternative or introducing mitigation or monitoring were identified and categorized as 'Key Issues'. An issue tracking sheet in Appendix A lists other issues considered by the team and either addressed in the analysis or considered outside the scope of this analysis. The following six key issues were developed from comments on the proposed action.

### Issue 1

*Key Issue – Authorizing OHV use too early in the year may cause trail rutting and soil erosion, while authorizing OHV too late in the year may harass big-game during hunting seasons as well as increase hunter success.*

Indicators – Date OHV Trail-Use Season begins  
Date OHV Trail-Use Season ends

## Issue 2

*Key Issue – Converting roads to OHV trails and closing other roads to mitigate the impact of the trails may interrupt local access to the Sled Springs area for activities such as gathering firewood or driving for pleasure.*

Indicators - Miles of road remaining available for full-sized vehicle access.

## Issue 3

*Key Issue – Establishing an OHV trail system in the Sled Springs area may disturb elk security and impair elk survival.*

Indicators      Duration of high elk disturbance  
                         Number of elk security areas

## Issue 4

*Key Issue – Water quality may be degraded by the density of the trail-riding system.*

Indicators:      Open road densities of the road/trail system by subwatershed.

## Issue 5

*Key Issue – Authorizing an OHV trail system in the Sled Springs area may adversely interfere with domestic livestock grazing because trail users may leave gates open, scatter sheep herds, interfere with herd dogs, interfere with livestock use of stock ponds, or road closures may limit permittee access for completing grazing operations. Conflicts may be greatest with the Mud Creek Allotment because domestic sheep graze this allotment.*

Indicators      Miles of designated OHV trails  
                         Miles of road closed to OHV trail use  
                         Number of ‘elk security areas’ available within the Mud Creek Allotment.

## Issue 6

*Key Issue – The proposed OHV trail system may not optimize the trail riding experiences that are available in the Sled Springs Area.*

Indicators      Miles of newly constructed OHV trail.  
                         Miles of trail that follow former logging roads.

**This page reserved for Figure 1 (Vicinity Map, including Management Areas)**



## Chapter 2 – Alternatives

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A total of six alternatives were considered by the interdisciplinary team. Alternative 1 (no action) Alternative 2 (Proposed Action), Alternative 3, Alternative 4, and Alternative 5 were analyzed in detail. In addition, a sixth alternative was considered but not analyzed in detail.

### Alternatives Considered but Not Analyzed in Detail

A proposed OHV trail system submitted by the Wallowa Valley Trail Riding Association was considered but not analyzed in detail. To meet PacFish standards for stream crossings, this alternative would have been cost prohibitive. In addition, the proposal was reviewed by the State of Oregon OHV coordinator, and he identified changes to the proposal that would make the system easier to maintain and administer. The association's proposal and the State OHV coordinator's comments were used to assist in the development of the proposed action (Alternative 2). However the proposal as submitted was not analyzed in detail.

### Alternatives Considered and Analyzed in Detail

#### Alternative 1

Alternative 1 represents the 'no action' alternative. Under this alternative, an OHV trail system would not be implemented within the Sled Springs area. The Final National OHV policy, which was adopted on November 2, 2005 would continue as the official guiding policy on OHV use. Although this alternative assumes that a trail riding system would not be designated for the Sled Springs Area, the policy would insist that OHV trail use in this area eventually be designated. Until then, OHVs within the analysis area would continue to be managed similar to the current situation. There would be no restrictions on use, and there would be no attraction for use that might occur as a result of trail designation.

#### Response to Key Issues

**Key Issue 1** - Alternative 1 responds to Key Issue 1 (Season of Use) by allowing OHV use year-round. This alternative allows the longest OHV use season among the alternatives.

**Key Issue 2** - Alternative 1 responds to Key Issue 2 (Local Access) by leaving 394 miles of road available for full-sized vehicle access. This alternative allows the greatest amount of local access by full-sized vehicles among the alternatives.

**Key Issue 3** - Alternative 1 responds to Key Issue 3 (Elk Security) by allowing 7 months where elk disturbance is estimated as high, and no security patches would occur on ridges.

This is the greatest length of disturbance among the alternatives.

**Key Issue 4** - Alternative 1 responds to Key Issue 4 (Water Quality) by making no changes in the current trail-riding opportunities, which are not restricted.

**Key Issue 5** - Alternative 1 responds to Key Issue 5 (Livestock Grazing) by designating no OHV trails, closing no roads to OHV use, and leaving no security areas.

**Key Issue 6** - Alternative 1 responds to Key Issue 6 (Quality of Trail Riding Experience) by allowing unlimited availability of OHV riding opportunities because it does not restrict where OHV riding may occur. This alternative provides the user the opportunity to ride anywhere, and currently a network of unauthorized trails exists.

## Alternative 2

Alternative 2 represents the Proposed Action mentioned in Chapter 1. This alternative was described in a scoping letter mailed on February 17, 2005. The proposed action is to establish a 166-mile OHV trail system in the Sled Springs area. This OHV trail system would be for all-terrain vehicles and motorcycles. The proposal consists of converting 71 miles of existing roads into OHV-only trails, converting an additional 77 miles of existing roads into routes available for both full-sized vehicles and OHVs, and constructing approximately 18 miles of new OHV trail as connections between existing roads to create logical riding loops. Refer to the section “Activities Common to Alternatives 2, 3, and 4” for further information on trail use education and enforcement.

This alternative also includes the placement of five OHV bridges where trails cross streams. Crossings with bridges would be constructed within the upper reach of Buck, McAllister, and Mud Creeks and on two unnamed intermittent streams. The construction of bridges at all intermittent and perennial crossings would prevent OHVs from entering streams and having a direct effect on Snake River steelhead. Bridges would be constructed of steel or non-treated wood, and would not impinge on the two-year floodplain. Bridges and any trails within RHCAs (Riparian Habitat Conservation Areas) would be designed to prevent sediment from entering any stream. Trails within RHCAs would be rocked and have erosion control devices (dips and waterbars) installed. They would not parallel the stream, but would approach stream crossings perpendicular to the stream as much as possible.

Along with the OHV trail system, two staging areas for loading and unloading OHVs would be created. The primary staging area for the Sled Springs area would be at an existing gravel pit along State Highway 3, which is accessed by a short spur road (3000-027). This staging area would consist of a camping area with designated routes, picnic tables, fire rings, and a toilet and a day-use parking area. A secondary staging area on Washboard Ridge near the Forest boundary on Forest Service Road 3030 would be developed to serve as a day-use parking area. Refer to Figure 2 for the staging area locations, the OHV bridge locations, and designated trail locations.



## Response to Key Issues

**Key Issue 1** - Alternative 2 responds to Key Issue 1 (Season of Use) by beginning the OHV trail season on June 15 and ending the season when at least 12 inches of snow are present. This alternative provides for a moderate length of OHV trail season among the alternatives.

**Key Issue 2** - Alternative 2 responds to Key Issue 2 (Local Access) by leaving 71.61 miles of road available for full-sized vehicle access.

**Key Issue 3** - Alternative 2 responds to Key Issue 3 (Elk Security) by allowing four months when elk disturbance from OHV use is estimated to be high. This alternative provides for no elk security patches on ridges.

**Key Issue 4** - Alternative 2 responds to Key Issue 4 (Water Quality) by allowing for trail/road-system densities varying from 2.10 to 3.46 miles per square mile.

**Key Issue 5** - Alternative 2 responds to Key Issue 5 (Livestock Grazing) by designating 89 miles of OHV trail and closing 70 miles of roads to all motorized use. No elk security areas would be designated.

**Key Issue 6** – Alternative 2 responds to Key Issue 6 (Quality of Trail Riding Experience) by constructing 18 miles of new OHV trail, and converting 71 miles of existing road to OHV-only trails. This alternative provides for the highest number of trail miles (new trail construction plus the total number of roads converted to trails), providing for relatively high level of trail riding experience.

## Alternative 3

Alternative 3 would establish a 144-mile OHV trail system in the Sled Springs area. This OHV trail system would be for all-terrain vehicles and motorcycles. The alternative would convert 54 miles of existing roads into OHV-only trails, convert an additional 73 miles of existing roads into routes available for both full-sized vehicles and OHVs, and construct approximately 17 miles of new OHV trail as connections between existing roads to create logical riding loops. Refer to the section “Activities Common to Alternatives 2, 3, 4, and 5” for further information on trail use education and enforcement.

This alternative also includes the placement of three OHV bridges where trails cross over McAllister and Mud Creeks and an unnamed intermittent stream. The construction of bridges at all intermittent and perennial crossings would prevent OHVs from entering streams and having a direct effect on Snake River steelhead. Bridges would be constructed of steel or non-treated wood, and would not impinge on the two-year floodplain. Bridges and trails within RHCAs would be designed to prevent sediment from entering any stream. Trails within RHCAs would be rocked and have erosion control devices (dips and waterbars) installed. They would not parallel the stream, but would approach stream crossings perpendicular to the stream as much as possible.

As described for Alternative 2, two staging areas for loading and unloading OHVs would be created. Refer to Figure 3 for the staging area locations, the OHV bridge locations, and designated trail locations.

## Response to Key Issues

**Key Issue 1** - Alternative 3 responds to Key Issue 1 (Season of Use) by beginning the trail-riding season on June 15 and ending the season three days prior to the beginning of archery hunting season. This alternative provides for the shortest trail-riding season among the alternatives.

**Key Issue 2** - Alternative 3 responds to Key Issue 2 (Local Access) by allowing full-sized vehicle use on 73 miles of road. This is slightly less than Alternatives 2 and 4, and much less than Alternative 1.

**Key Issue 3** - Alternative 3 responds to Key Issue 3 (Elk Security) by allowing a high disturbance level to elk of approximately 2 months. Alternative 3 provides for 4 elk security patches on ridges. Among the alternatives, Alternative 3 provides the greatest level of protection for elk security.

**Key Issue 4** - Alternative 3 responds to Key Issue 4 (Water Quality) by allowing for trail/road-system densities varying from 1.79 to 3.00 miles per square mile.

**Key Issue 5** - Alternative 3 responds to Key Issue 5 (Livestock Grazing) by designating 71 miles of OHV trail and closing 91 miles of roads to all motorized use. A total of 4 security areas would be designated.

**Key Issue 6** - Alternative 3 responds to Key Issue 6 (Quality of Trail Riding Experience) by constructing 17 miles of new OHV trail, and converting 73 miles of existing road to OHV-only trails. This alternative provides for the lowest level of trail riding experience among the alternatives because it uses the greatest amount of existing roads for trail-designation, and allows for the lowest level of new OHV trail construction.

## Alternative 4

Alternative 4 would establish a 158-mile OHV trail system in the Sled Springs area. This OHV trail system would be for all-terrain vehicles and motorcycles. The alternative would convert 64 miles of existing roads into OHV-only trails, convert an additional 74 miles of existing roads into routes available for both full-sized vehicles and OHVs, and construct approximately 20 miles of new OHV trail as connections between existing roads to create logical riding loops. Refer to the section “Activities Common to Alternatives 2, 3, 4, and 5” for further information on trail use education and enforcement.

This alternative also includes the placement of six OHV bridges where trails cross streams. Crossings with bridges would be constructed within the upper reach of Buck, McAllister,

Mud, and Burnt Creeks and on two unnamed intermittent streams. The construction of bridges at all intermittent and perennial crossings would prevent OHVs from entering streams and having a direct effect on Snake River steelhead. Bridges would be constructed of steel or non-treated wood, and would not impinge on the two-year floodplain. Bridges and any trails within RHCAs would be designed to prevent sediment from entering any stream. Trails within RHCAs would be rocked and have erosion control devices (dips and waterbars) installed. They would not parallel the stream, but would approach stream crossings perpendicular to the stream as much as possible.

As described for Alternative 2, two staging areas for loading and unloading OHVs would be created. Refer to Figure 4 for the staging area locations, the OHV bridge locations, and designated trail locations.

## **Response to Key Issues**

**Key Issue 1** - Alternative 4 responds to Key Issue 1 (Season of Use) by beginning the trail-riding season when it is determined that soil conditions have dried sufficiently to prevent rutting and erosion. The trail-riding season would end when at least 12 inches of snow have accumulated. Besides the no-action alternative, this alternative has potential to provide the longest trail-riding season among the alternatives. However, with an extended rainy season in the spring, the riding season would be shortened.

**Key Issue 2** - Alternative 4 responds to Key Issue 2 (Local Access) by allowing full-sized vehicle use on 74 miles of road. This level of access is similar to Alternatives 2 and 3, but much less than Alternative 1.

**Key Issue 3** - Alternative 4 responds to Key Issue 3 (Elk Security) by allowing a high disturbance level to elk for approximately 5 months. Alternative 4 provides for 2 elk security patches on ridges. After Alternative 3, Alternative 4 provides the next greatest level of protection for elk security.

**Key Issue 4** - Alternative 4 responds to Key Issue 4 (Water Quality) by allowing for trail/road-system densities varying from 2.10 to 3.00 miles per square mile.

**Key Issue 5** - Alternative 4 responds to Key Issue 5 (Livestock Grazing) by designating 64 miles of OHV trail and closing 80 miles of roads to all motorized use. A total of 2 elk security areas would be designated.

**Key Issue 6** – Alternative 4 responds to Key Issue 6 (Quality of Trail Riding Experience) by constructing 20 miles of new OHV trail, and converting 74 miles of existing road to OHV-only trails. This alternative provides for the second highest number of trail miles (new trail construction plus the total number of roads converted to trails). However, Alternative 4 provides for a high level of trail riding experience when factoring in the total number of available miles and that trail locations reflect the desires of OHV users received during public scoping.

## Alternative 5

Alternative 5 was developed after a public review period of the Sled Springs EA and a May 17, 2007 Decision Notice was issued to proceed with implementing a modified version of Alternative 4. The decision to implement Alternative 4, as modified was withdrawn, and since then, Alternative 5 was developed. In consultation with Nez Perce Tribe staff members. Refer to the analysis file for a description of tribal consultation efforts and the specific components Alternative 5 contains in response to tribal concerns.

Alternative 5 would establish a 156-mile OHV trail system in the Sled Springs area. This OHV trail system will be for all-terrain vehicles and motorcycles. The alternative would convert 60 miles of existing roads into OHV-only trails, convert an additional 71 miles of existing roads into routes available for both full-sized vehicles and OHVs, and construct approximately 25 miles of new OHV trail as connections between existing roads to create logical riding loops. This alternative also includes the placement of six OHV bridges where trails cross streams.

The OHV trail system would be available for use starting April 1 and ending 3 days prior to the beginning of rifle elk season in late October. A seasonal closure on the McAllister Ridge area would be in effect 3 days prior to archery season, closing approximately 15 miles of the OHV trail system through the fall hunting seasons. The McAllister Ridge closure also closes the area to full-sized vehicles, providing for further elk security.

One staging area for loading and unloading OHVs would be created at the existing gravel pit near mile-marker 19 of State Highway 3.

Alternative 5 would decommission approximately 4 miles of road that are too close to streams. Alternative 5 also would restore approximately 25 miles of existing user-created OHV trails within the Sled Springs area that will not become part of the designated trail system. Some of these old trails run up steep hillsides and/or ford streams or wet areas. Those fords would be rehabilitated and trail restoration efforts would include decompaction or scarification, seeding, planting, and disguising entry points.

Refer to Figure 5 for the staging area locations, the OHV bridge locations, and designated trail locations.

### Response to Key Issues

**Key Issue 1** - Alternative 5 responds to Key Issue 1 (Season of Use) by beginning the trail-riding season on April 1 and ending the season 3 days prior to the start of the elk rifle season in late October. The trail system would be subject to closure during this period if soil conditions were too wet to support OHV use. Besides the no-action alternative, this alternative is similar to Alternative 4, and has potential to provide the longest trail-riding season among the alternatives. However, with an extended rainy season in the spring, the riding season would be shortened.

**Key Issue 2** - Alternative 5 responds to Key Issue 2 (Local Access) by allowing full-sized

vehicle use on 71 miles of road. This level of access is similar to Alternatives 2, 3, and 4, but much less than Alternative 1.

**Key Issue 3** - Alternative 5 responds to Key Issue 3 (Elk Security) by allowing a high disturbance level to elk for approximately 6 months. Alternative 5 provides for 3 elk security areas on ridges. In addition, Alternative 5 adds the McAllister Ridge seasonal closure area. After Alternative 3, Alternative 5 provides the next greatest level of protection for elk security.

**Key Issue 4** - Alternative 5 responds to Key Issue 4 (Stream Crossings) by providing for six new stream crossings. Except for Alternative 1, this alternative matches Alternative 4 with the most number of stream crossings of all of the alternatives.

**Key Issue 5** - Alternative 5 responds to Key Issue 5 (Livestock Grazing) by designating 60 miles of OHV trail and closing 83 miles of roads to all motorized use. The alternative designates 3 big-game security areas. For the Mud Creek Allotment, the trail system would be closed during the big-game hunting season on McAllister Ridge. However, livestock are on this ridge only occasionally during the hunting seasons, so the closure would provide limited benefit to the permittee.

**Key Issue 6** – Alternative 5 responds to Key Issue 6 (Quality of Trail Riding Experience) by constructing 25 miles of new OHV trail, and converting 60 miles of existing road to OHV-only trails. This alternative provides for a similar number of trail miles as Alternative 4 (new trail construction plus the total number of roads converted to trails) creating opportunity for a high level of trail riding experience. The total number of available miles and the trail locations reflect the desires of OHV users received during public scoping.

## Activities Common to Alternatives 2, 3, 4, and 5

Implement a policy to restrict motorized use in the Sled Springs area to designated routes. Upon establishment of the trail system, off-trail travel by motorized vehicles would no longer be authorized except for snowmobile use in the winter. The effectiveness of managing motorized use in the Sled Springs area would be enforced by a combination of physical barriers, educational efforts, and closure orders. Where motorized use is not authorized, berms may be placed, entrances may be hidden by recontouring the slope, logs or slash may be placed, or vegetation may be planted. In many cases, existing roads have been obscured, and no treatment would be needed to dissuade future motorized use. In conjunction with the physical barriers, maps would be prepared and signing would be placed to clearly designate approved motorized routes. Closure orders would be signed to designate open routes and define periods during which the trail and road systems are open. Violations of these orders would be subject to citations and fines.

New trail construction would be accomplished with equipment such as a SWECO 450 dozer, which is a machine designed to construct trails. The SWECO 450 is a tracked machine with a 6-way blade in the front and a backhoe in the back, and is 48 inches wide. It has 11 inch wide tracks and a ground compaction rating of 5.7 p.s.i. Trails would be constructed to bare soil to a width that would vary between 30 and 48 inches. An additional brush and downed logs would be cleared on either side of the trail tread for a distance varying between three and five feet, depending on the amount of side slope. Drainage would be facilitated through the construction of drain dips, and in a few places flexible water bars (constructed of conveyor belt material sandwiched between non-treated 2x6s). Trails would be constructed to have a rolling and winding character in order to keep sight distances short. Short sight distances allow fewer high speed and acceleration areas, resulting in less soil displacement. This would be accomplished by utilizing the terrain, vegetation, and rolling dip construction.

To address sedimentation from existing roads into McAllister Creek, RHCA segments of Roads 020 and 024 would be decommissioned and stabilized through scarification and seeding.

Dispersed campsites located within 300 feet of roads designated as available for full-sized vehicle access would be available for motorized access. However, motorized access would be restricted to only that needed to access the dispersed campsite. Administrative motorized access off of designated routes would be permitted for management of the resource such as controlling wildfires or treating noxious weeds.

To improve compliance with trail-riding rules, education and enforcement will be implemented. Advertisement for the trail system would warn riders that the trail can and will shut down with little notice with significant rain events, or wet seasons (spring and fall). Users would be advised to check the Forest web-site or call the Forest Service Visitor Center in Enterprise, Oregon for latest trail conditions (a successful system for managing non-motorized trails on the Wallowa-Whitman National Forest). Trail layout would include adequate signs in obvious locations posting current conditions. Enforcement of closures would take place through monies available through the State Park OHV fund.

## Alternative Comparison and Summary

The following Tables 2 through 5 compare the alternatives.

**Table 2 – Comparison of Alternatives by Need for Action Elements**

Features	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Need for Action Elements – Recreation</b>					
ROS Setting for MA 1 and 3	Roaded Modified	Roaded Natural	Roaded Natural	Roaded Natural	Roaded Natural
<b>Need for Action Elements – Roads</b>					
Open Road Density for MA 1 and 3 (for Full-Sized Vehicles)					
Buck Creek	3.06	1.87	1.77	1.89	1.89
Middle Mud Creek	1.97	2.19	1.97	1.92	1.92
Tope Creek	2.76	1.68	1.68	1.68	1.68
Upper Courtney Creek	2.06	1.38	1.38	1.38	1.38
Upper Mud Creek	3.28	2.13	2.13	2.13	2.13

**Table 3 – Comparison of Alternatives by Trail Features**

Descriptor	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Existing roads converted to OHV-only trails	0 miles	71 miles	54 miles	64 miles	60 miles
Newly constructed connector OHV trails	0 miles	18 miles	17 miles	20 miles	25 miles
Open roads to both full-sized vehicles and OHVs	218 miles	77 miles	73 miles	74 miles	71 miles
Total OHV-only routes (includes roads and new trail construction)	unlimited	89 miles	71 miles	84 miles	85 miles
Total roads closed to all motorized vehicles	0 miles	70 miles	91 miles	80 miles	83 miles
Total motorized road and trail system	unlimited	166 miles	144 miles	158 miles	156 miles
Roads decommissioned	0 miles	0.28 miles	0.28 miles	0.28 miles	4.13 miles

**Table 4 – Seasonal Closures for Alternative 5**

Trail Feature	Total Miles	Miles Subject to Seasonal Closures during Big-Game Hunting Season	Miles Open Throughout the Trail Riding Seasons
Newly constructed connector OHV trails	25.14	1.72	23.42
Open roads to both full-sized vehicles and OHVs	70.65	6.17	64.48
Existing roads converted to OHV-only trails	60.33	7.33	53.00

**Table 5– Key Issues and Indicators by Alternative**

Issue and Indicators	Units of Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Issue 1: Season of Use</b>						
• Beginning of authorized OHV trail use season	date or conditions	year-round	June 15	June 15	dry conditions	April 1
• Ending of authorized OHV trail use season	date or conditions	year-round	12 inches snow	3 days before archery hunt	12 inches snow	3 days before rifle elk hunt
<b>Issue 2: Local Access</b>						
• Roads available for full-sized vehicle access	miles	227	77	73	74	71
<b>Issue 3 – Elk Security</b>						
• Duration of high elk disturbance	months	year-round	7	2	6	6
• Number of elk security areas	each	0	0	4	2	3
<b>Issue 4 – Water Quality and Road Density</b>						
• Open Road Density During Riding Season by Subwatershed						
• Buck Creek	miles per square mile	2.27	2.14	1.79	2.15	2.15
• Middle Mud Creek		2.53	2.30	2.14	2.14	2.14
• Upper Mud Creek		3.46	2.88	2.83	2.84	2.9
• Upper Courtney Creek		2.10	2.10	2.10	2.10	2.10
• Tope Creek		3.37	3.00	3.00	3.00	3.1
<b>Issue 5 – Livestock Grazing</b>						
• Designated OHV trail	miles	Unlimited	166	144	158	156
• Roads closed to motorized use	miles	None	70	91	80	83
• Elk security areas	each	0	0	4	2	3
<b>Issue 6 – Quality of Trail Riding Experience</b>						
• Newly constructed OHV trail	miles	0	18	17	20	25
• Trails following former logging roads	miles	unlimited	71	54	64	60



## Mitigation Measures

Mitigation measures pertinent to the action alternatives are listed below. Mitigation measures address potential impacts by avoiding adverse impacts, minimizing adverse impacts by limiting activities, or rectifying adverse impacts through rehabilitation. The mitigation measures listed below also include “protection measures” developed during the ESA consultation process for this proposal. Some of these measures are more properly defined as management practices, but they are listed here for completeness.

### Mitigation Measures Common to Alternatives 2, 3, 4, and 5

Mitigation measures address potential impacts by either avoiding adverse impacts, minimizing adverse impacts by limiting activities, or rectifying adverse impacts through rehabilitation. In addition to the mitigation measures listed below, measures described in the Forest Plan and pertinent to this type of project apply.

Mitigations to prevent or minimize the risk of noxious weed spread, and increase the effectiveness of treatments within the project area are described below. The Sled Springs trail coordinator, in coordination with the Wallowa Mountains Office weed coordinator will develop an inventory, monitoring, and treatment plan specific to the Sled Springs OHV Trail area as the trail system is implemented. A collaborative approach to implementing this plan will be used to distribute the weed treatment responsibility among entities such as the State OHV program, Wallowa Valley Trail Riders, the Forest Service, and Wallowa County, using a format such as a Memorandum of Understanding to document the approach.

1. Mitigation actions will be implemented for the prevention and treatment of noxious weeds that comply with the Pacific Northwest Region Final Environmental Impact Statement for Preventing and Managing Invasive Plants.
2. Take reasonable measures to insure equipment and materials used for trail construction, maintenance, and inspection work is free of soil, seeds, vegetative matter or other debris that could contain or hold seed. Club members, volunteers, or contractors must advise the Forest Service of measures taken to clean this equipment and arrange for the opportunity for Forest Service inspection prior to such equipment being placed in service on National Forest System lands. For road maintenance and decommissioning contracts, use standard timber sale contract provisions such as WO-B 6.35 to ensure appropriate equipment cleaning prior to entering National Forest Land. The road work should be conducted during the time of year that poses the least threat of spreading the noxious weeds, or the work should be deferred all together until the sites are controlled.
3. Treat weeds in roads to be closed before roads are made impassable. Re-inspect and follow-up based on initial inspection and documentation. When working in known weed sites, equipment used for road work should be cleaned prior to moving on to other work if the noxious weed site had not been controlled prior to the road work.

4. Treat weeds in constructed/designated routes before the routes are sanctioned for public use. Annually treat weed patches along the routes - do not allow trail-side weeds to go to seed (see monitoring measures). Consider temporary trail segment quarantines on areas that are not reaching containment objectives so that seeds are not spread along the rest of the trail system. Consider temporary or permanent re-routes around these trouble spots.
5. During large organized special-use permit events, include a weed education prevention and control provision in all new special-use authorizations. Ensure through inspection that OHVs that are to participate in the event have been cleaned off-site (such as the vehicle wash station in the City of Enterprise); or designate a portion of the staging area to be used as an OHV cleaning spot. If the staging area is used as a wash station, contain and avoid use of this spot for recreation riding. Provide equipment for the cleaning and inspection of the OHVs. Contain cleaned debris to this location and inspect for the presence of weeds. Provide informative materials to the riders.
6. Develop and implement a public involvement and public education plan for the OHV route system. Plan development shall be coordinated with the Wallowa Valley Trail Riders Club and include as a minimum:
  - Provide weed awareness messages and prevention practices at strategic locations. Include weed identification, threat information, and contact information at staging area bulletin boards. Consider a bounty for detecting new infestations, using funding through cooperators.
  - Provide a map of known infestations and encourage users to be especially vigilant when using trail segments near these sites and report new infestations.
  - Encourage public land users to inspect and clean motorized and mechanized trail vehicles of weeds and their seeds, before recreating on public lands, and before transporting OHVs from this trail network to other areas.
7. Insure that activities restoring disturbed ground from road decommissioning, and route construction or maintenance, follow regional guidelines for the use of native species - use of locally adapted native species being the top priority. Seed straw or mulch must also be weed free.

To address livestock safety/harassment effects, or sheep camp issues, implement the following mitigations as needed and where determined necessary in cooperation with the affected livestock permit holders:

8. Place cattle guards in place of gates where OHV trails cross existing pasture fences.
9. Ensure that OHV bridge placement does not improve livestock access to the stream.
10. Place educational literature about livestock management at the staging areas.

11. Consider changes in rangeland conditions caused by OHV pressure on livestock movement. If needed, move key areas to more representative locations.
12. Motorized vehicle use for maintaining grazing allotment improvements off of the designed road and trail system will be by prior authorization as part of the permittee's annual instructions/ plan of operation.
13. Resolve immediate conflicts between the trail system and permittee operations. Conflicts may be addressed by educating riders, issuing citations, or closing trails to OHV use when sheep bands are using a particular area. Such closures may also provide opportunities for trail maintenance operations.

To protect summer steelhead streams during trail and bridge construction activities, include the following protection measures:

14. All work within RHCAs will take place within instream work windows that coincide with the *Oregon Guidelines for Timing of In-water Work to Protect Fish and Wildlife Resources* (ODFW, 2000).
15. Bridges will be placed without requiring construction within stream channels.
16. Although crossing of the streams with equipment will be necessary, they will be kept to a minimum.
17. Areas disturbed by project implementation will be seeded with native seed appropriate to the site, and planted with appropriate native shrubs where necessary. If monitoring reveals the need for re-seeding, the area will be re-seeded.
18. Use appropriate erosion control materials/methods to limit instream sediment input.
19. Hazmat spill kits will be present on-site when any piece of heavy machinery is working next to a stream.
20. There will be no fueling or storage of fuel or oil within RHCAs.
21. No treated wood will be used within RHCAs.
22. Follow the terms and conditions on Pages 21 to 26 of the Biological Opinion dated September 15, 2006 from National Marine Fisheries Service for the Sled Springs OHV Trail Proposal. These terms and conditions relate to monitoring and reporting, construction activities, and pollutants.

#### **Mitigation Measures Specific to Alternative 4**

The season-of-use for the Sled Springs OHV trail system will be allowed when soil conditions are adequately dry. Adequately dry conditions will be determined as described below for item 2 in the monitoring requirements.

## Mitigation Measures Specific to Alternative 5

The open trail season is when soil conditions have dried sufficiently from April 1 to 3 days prior to rifle elk season; however, the trail system may close during the season should trail conditions change. Opening and closing of the trail system within the season of use depends on soil conditions and weather patterns (“resource trigger”). Use will be allowed when soil conditions are adequately dry. Measuring adequacy will be done by monitoring (“key areas”) – those areas most vulnerable to rutting, soil displacement, and erosion due to soil types – and areas with the highest risk of affecting aquatic resources, such as approaches to crossings. The trail “key areas” would be monitored throughout the riding season. FSV portions of the system would be not be managed under this system because roads available for use by FSV in the area are adequately surfaced to support vehicles during wet soil conditions.

Ensuring compliance by users will take place through education and enforcement. Advertisements for the trail system will warn riders that the trail can and will shut down with little notice with significant rain events, or wet seasons (spring and fall). Users will be advised to check the Forest web-site or call to the Visitor Center for latest trail conditions (a system used successfully for all of our non-motorized trails). Trail layout will include adequate signs in obvious locations posting current conditions. Enforcement of closures will not be subject to the uncertainties of Forest Service funding, but will take place through monies available through the State Park OHV fund.

**Key Areas:** A minimum of three key areas will be established as resource triggers for trail use. These key areas will be located at sites that provide the best indication of trail conditions in sensitive areas. These key areas will be 50-100 feet in length, located where ash soils exist, located at various conditions for sun exposure, or located within riparian areas where constructed trail segments approach the bridge installations. Ash soils are more sensitive to moisture than the other residual basalt soils in the area. Actual key area locations will be determined after construction and before opening the trail system.

**Resource Triggers:** Monitor key areas for predominance of “wet soil conditions” and consider the weather trend to determine whether the trail system will be open. For purposes of this document, wet soil conditions are defined as signs of saturated soil conditions, puddling, and muddy surface. The weather trend will be evaluated from the short-term forecast posted on the National Weather Service website by the Pendleton office. If less than 50 percent of the lengths of the key areas demonstrate wet soil conditions and the weather forecast indicates a dry weather pattern, the trail system will be open. If greater than 50 percent of the lengths of the key areas demonstrate wet soil conditions and the weather forecast indicates a rainy weather pattern, the trail system will be closed. Other combinations of wet soil percentages and weather forecasts will be evaluated and may require monitoring the key areas again before a decision to open or close the trail system is made.

## Monitoring

The following items are needed to keep impacts at acceptable levels while implementing an OHV trail system in the Sled Springs area. These items would be applied to Alternatives 2, 3, 4, and 5 unless otherwise noted. Monitoring of the OHV trail system is primarily the responsibility of the Sled Springs OHV Coordinator. Funded through the State OHV Trail System, the coordinator for the Sled Springs OHV Trail System will ensure that the following level of monitoring occurs throughout the year:

1. Enforcement of the trail-riding system will be completed through employment of a Sled Springs OHV Coordinator. The coordinator will be authorized to cite those who ride off route or outside of the designated season. The coordinator will maintain a presence during the trail-riding season to ensure safe and appropriate use of the trail system by users.
2. Noxious weed spread and infestation will be monitored. Route/staging area inspections for the detection of new noxious weed infestations will be conducted at least biannually. A plan for seasonal route-related weed treatment will be incorporated into the trail maintenance plan. Noxious weed monitoring will be the responsibility of the Sled Springs OHV trail coordinator, who will coordinate with the Wallowa Mountains Office weed coordinator. Evidence of weed spread will result in intensified treatment efforts and/or trail closures. Trail closures will be posted at all sites where trail-riding information is disseminated, and a designated representative from the Wallowa Valley Trail Riders will be informed.
3. Conflicts with big-game use of the area will be monitored through communications with Oregon Department of Fish and Wildlife biologists. An annual meeting with Oregon Department of Fish and Wildlife biologists will be held to discuss any conflicts. This meeting will be scheduled at an appropriate time to also include the Sled Springs OHV trail coordinator, the Wallowa Mountains Office wildlife biologist, Nez Perce Tribe representatives, and a designated representative from the Wallowa Valley Trail Riders.
4. Permittee's conflicts for domestic sheep and cattle grazing will be monitored through communications with the permittees. Immediate conflicts will be reported to the Sled Springs OHV trail coordinator who will work with a designated representative from the Wallowa Valley Trail Riders and the permittee to resolve the situation as needed. An annual meeting will be scheduled at the appropriate time with the permittee, the Sled Springs OHV trail coordinator, the Wallowa Mountains Office range management specialist, and a designated representative from the Wallowa Valley Trail Riders to discuss other needed changes in the trail system.
5. Use of the OHV trail system will be monitored through a self-issuing permit system. Trail users will be required to fill out a permit and place it in a drop box before using the trail system. Users who do not complete a permit will be subject to citation. The information from permits will be used to identify from what areas users are traveling to use the Sled Springs OHV trail system and to monitor overall use levels.

## **Preferred Alternative**

Alternative 5 is the agency preferred alternative.

Reserve this page for Figure 2– Alternative 2 Map

Reserve this page for Figure 3 – Alternative 3 Map



Reserve this page for Figure 4 – Alternative 4 Map

Reserve this page for Figure 5 – Alternative 5 Map

## **Chapter 3 - Affected Environment and Environmental Consequences**

Chapter 3 describes the environment and environmental consequences relevant to this analysis. The chapter begins by describing the past, present, and foreseeable future activities and actions that were considered in the cumulative effects analyses throughout the chapter. The analysis then describes how the alternatives respond to the key issues. The following section focuses on resources that are relevant to or affected by the scope of the analysis: recreation, wildlife, aquatics, botanical, and roadless. The chapter concludes with a discussion of specifically required disclosures. The analysis in this chapter is derived from specialist reports, biological assessments, and biological evaluations contained in the analysis file.

### **Cumulative Actions and Activities**

Cumulative effects are analyzed in this chapter. Each resource area identifies the specific actions and activities that were considered to overlap with the direct and indirect effects of the proposal and alternatives. For Alternative 1, evolution of the baseline condition is described, but because no action would be taken, this change is not referred to as “cumulative effects. A full cumulative effects analysis was then prepared for the proposed action and alternatives, specifically Alternatives 2, 3, and 4. The actions and activities considered for cumulative effects are shown in the following table.

**Table 6 – Cumulative Actions Associated with the Sled Springs Area**

<b>Action or Activity (Year of NEPA Decision)</b>	<b>Treatment</b>	<b>Completed</b>	<b>Pending or Ongoing</b>	<b>Total</b>
Biomass (1996)	Commercial thinning (acres)	2040	0	2040
	Underburning (acres)	0	1037	1037
	Road obliteration (miles)	1.7	0	1.7
	Road closures (miles)	25	0	25
Buck (2000)	Commercial thinning (acres)	788	0	788
	Underburning (acres)	0	783	1365
	Road closures (miles)	19.2	0	19.2
Wolf (2001)	Commercial thinning (acres)	550	0	550
	Underburning (acres)	0	1935	1606
	Road closures (miles)	0	19.4	19.4
Biomass 3 (2004)	Salvage (acres)	203	0	203
Mud Creek Allotment	750 ewes with lambs from May 15 to September 25 (acres)	NA	11,031	11,031
Buck Creek Allotment	310 cows with calves from June 1 to October 31 (acres)	NA	22,718	22,718
Tope Creek Allotment	107 cows with calves from June 1 to September 30 (acres)	NA	7,463	7,463

Action or Activity (Year of NEPA Decision)	Treatment	Completed	Pending or Ongoing	Total
Day Ridge Allotment	100 cows with calves to graze from May 1 to May 30 (acres)	NA	2,620	2,620
Noxious Weed Treatment (1994)	Treat existing noxious weed populations (acres)	NA	585	585
Watershed Restoration Projects	Ongoing program to restore stream conditions through instream wood placement, exclosure construction, spring protection (miles)	10	5	15
Road Maintenance	Grade roads 3021, 3040, 3040-125, 3056, and the spur to Sled Springs. Clean culverts on all roads as needed (miles)	NA	14 miles	14 miles
Firewood Gathering (1994)	Public gathering of firewood for personal use (acres)	NA	22,000	2200
Regulation of Hunting Seasons	ODFW regulation of tags for the Sled Springs Unit (number of regulated hunts)	NA	3	3
Private Land Harvest	ODF regulation of notices of intent to harvest (annual number of notices)	NA	Not quantified	Not quantified
Rangeland Analysis (projected 2009)	Authorize livestock grazing for expired permits on the Tope, Mud, Buck, and Day Ridge Allotments (acres)	45,720	0	45,720

## Key Issues

Key issues and their formulation are described in Chapter 1. The following section describes how the alternatives respond to each of the key issues.

### *Key Issue 1 – Season of Use*

*Key Issue – Authorizing OHV use too early in the year may cause trail rutting and soil erosion, while authorizing OHV too late in the year may harass big-game during hunting seasons as well as increase hunter success.*

**Table 7 – Comparison of Alternatives for Key Issue 1**

Issue and Indicators	Units of Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Issue 1 – Season of Use</b>						
• Beginning of authorized OHV trail use season	Date or conditions	year-round	June 15	June 15	dry conditions	April 1
• Ending of authorized OHV trail use season	Date or conditions	year-round	12 inches snow	3 days before archery hunt	12 inches snow	3 days before rifle elk hunt

### Soil Disturbance and Rutting

Alternative 1 poses the greatest potential for soil disturbance and rutting because future OHV use would not be restricted to designated routes, and the use season would be year-round. Users would be able to ride OHVs where terrain and vegetation allow, during any weather conditions that make the area passable. Alternatives 2, 3, and 4 would implement OHV trail-riding systems which would localize OHV use to designated routes and implement seasonal riding periods. The action alternatives would construct new connector trails for OHV use and convert existing logging roads to OHV routes. The new trails would be designed to minimize soil disturbance and rutting by keeping sight-distances short (reduces riding speeds), crossing riparian areas with bridges, maintaining appropriate trail grades, and placing rock at ephemeral draw crossing. Many of the logging roads to be converted to OHV trails have been designed for large loads and would accommodate OHV use without soil disturbance and rutting. Nonetheless, the potential for soil disturbance and rutting would continue under the action alternatives.

Alternative 2 would allow trail use from June 15, when trails are dry enough to ride without excessive soil damage, until there is 12” of snow at the staging area, usually by early February. Alternative 3 would begin trail use on June 15 but would end the season three days prior to the start of archery season in late August. This season would avoid most of the wet-soil period. Alternative 4 would begin the trail season based on monitoring of soil conditions, which would ensure that trail use would not begin before soil conditions have adequately dried. The season would end when snow depths reach 12 inches. Throughout the trail-riding season, Alternatives 2, 3, and 4 would have provisions for closing the area to trail riding if widespread rutting or displacement were occurring.

Alternative 5 would begin trail use on April 1 and end use 3 days prior to the start of rifle elk season, which occurs in late October. Alternative 5 would incorporate a resource trigger monitoring protocol to ensure the trail system is closed to use when soil conditions are not adequately dry to accommodate the use. Alternative 5 also implements a closure on McAllister Ridge to both OHV use and full-sized vehicle use beginning 3 days prior to the start of archery season. This closure continues until the remainder of the trail system closes in late October.

Refer to the section on Soil Productivity later in this chapter for additional information.

### Big-Game Harassment and Hunter Success

Refer to the response to Key Issue 3 for information on big-game harassment and hunter success

***Key Issue 2 – Local Access***

*Key Issue – Converting roads to OHV trails and closing other roads to mitigate the impact of the trails may interrupt local access to the Sled Springs area for activities such as gathering firewood or driving for pleasure.*

**Table 8 – Comparison of Alternatives for Key Issue 2**

Issue and Indicators	Units of Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Issue 2 – Local Access</b>						
<ul style="list-style-type: none"> <li>• Roads available for full-sized vehicle access</li> </ul>	miles	218	77	73	74	71

Alternative 1 provides the best scenario for local access by full-sized vehicles. Firewood cutters and dispersed campers can drive off-road to reach patches of dead trees or favorite camping sites. Approximately 227 miles of road are available for access. While some of these roads are physically blocked to access, they can be breached or avoided to allow access to the remainder of the road. Alternatives 2, 3, and 4 would create a very different situation for full-sized vehicle access. Access would be limited to designated routes. As shown in the table above, the action alternatives provide about the same level of full-sized vehicle access. The roads designated for full-sized vehicles would be the more developed routes. Therefore, firewood cutting opportunities and opportunities for dispersed camping would be reduced. Because much of the firewood cutting and camping in this area occurs in fall, Alternative 3 would be the least disruptive to these users, because the OHV trail-riding system would not be in effect in the fall. However, restrictions on full-sized vehicle access (to 73 miles of road) would remain in effect. Some users are expected to continue to use the area, although those looking for a more private experience may be displaced to other areas of the National Forest.

***Key Issue 3 – Elk Security***

*Key Issue – Establishing an OHV trail system in the Sled Springs area may disturb elk security and impair elk survival.*

**Table 9 – Comparison of Alternatives for Key Issue 3**

Issue and Indicators	Units of Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Issue 3 – Elk Security</b>						
• Duration of high elk disturbance	months	year-round	7	2	6	6
• Number of elk security areas	each	0	0	4	2	3

On a scale ranging from greatest to least negative effects, Alternative 4 would rank nearly the same as Alternative 2, with greater negative effects than Alternatives 1 and 3. The notable differences are that Alternative 4 would provide slightly more security areas (two compared to zero) than Alternative 2, but would experience more disturbance during the spring calving season than Alternative 2.

**Table 10 - Potential for Elk Disturbance by Month**

Alt	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Low	Low	Low	Mod	High	High	High	High	High	High	Mod	Low
2	Low	Low	Low	Low	Low	High	High	High	High	High	Mod	Low
3	Low	Low	Low	Low	Low	High	High	Low	Low	Low	Low	Low
4	Low	Low	Low	Mod	High	High	High	High	High	High	Mod	Low
5	Low	Low	Low	Mod	High	High	High	High	High	High	Low	Low

**Low** – Low chance of disturbance due to season of use restrictions, no or few hunting seasons, or snow that hinders access by wheeled vehicles. A low level of intensity is also predicted for this category (use occurs, but is uncommon and at low levels).

**Moderate** – moderate chance of disturbance based on variation in snow accumulation from year to year, and popularity of season for recreation (favorable weather, hunting seasons, firewood season, antler hunting, etc.). A moderate level of intensity is also predicted for this category (use occurs more frequently than for “low”, but use is sporadic and several days may pass with few users).

**High** – high chance of disturbance based on open season of use, and popularity of season for recreation (favorable weather, hunting seasons, firewood season, antler hunting, etc.). A high level of intensity is also predicted for this category (use occurs regularly, rarely will more than a day or two pass without use, weekend and holiday use is heavy).

Table 11 displays the results of the band width analysis from Figures 6, 7, and 8, and 9. Refer to the wildlife section for further description of this analysis.

**Table 11 - Comparison of Motorized Route Densities and Security Areas by Alternative on Elk Summer Range.**

Alternative	Motorized Route Density – Elk Summer Range	W-W LRMP Standard for Maximum Density	% of Area ≥ Moderate Quality Security Habitat
1	3.57	MA 1: 2.5 mi/sq mi (W-W LRMP, page 4-58)	0 %
2	4.45		>16 %
3	3.89		>18 %
4	4.23		>17 %
5	4.20		<25%

The motorized route densities in Table 11 were calculated for the contiguous summer range on National Forest system lands since the proposed OHV trail system would not be available during the winter months when many deer and elk are concentrated on lower elevation winter ranges. The contiguous summer range is the logical resource analysis unit for elk since the proposed action is restricted to the summer range area, and because the Forest Service’s legal authority applies only to National Forest system lands. Motorized route density can be calculated at several scales and displayed in many ways, however the scale used for generating densities in Table 11 is the most meaningful to the way elk are affected by disturbance from motorized access. Densities by subwatershed or separated into smaller management areas fails to portray the landscape scale that is appropriate for assessing effects to elk.

The Forest Plan gives guidelines for maintaining open road densities that generally do not exceed 2.5 miles per square mile in Management Area 1 (Page 4-58) and 1.5 miles per square mile in Management Area 3 during the winter (Page 4-62). During the summer, Management Area 3 is then managed as described for Management Area 1 (2.5 miles per square mile). As described in a footnote on Page 4-35 of the Forest Plan, the method used for calculating open road densities is an important factor and gives direction for managers to calculate the area of each Management Area contained in each subwatershed and the open roads within that management area/subwatershed will also be calculated to determine the open road density. Based on these instructions, the open road density by alternative for Management Areas 1 and 3 by subwatershed is displayed in the following table.

**Table 12 – Open Road Densities (mile/square mile) in MA 1 and 3 for full-sized vehicles (FSV) and for all motorized roads and trails by Subwatershed**

Subwatershed	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
	FSV	All Motorized	FSV	All Motorized	FSV	All Motorized	FSV	All Motorized	FSV	All Motorized
Buck Creek	3.06	Not regulated	1.87	3.87	1.77	3.43	1.77	3.43	1.89	4.06
Middle Mud Creek	1.97	Not regulated	2.19	2.45	1.97	2.08	1.97	2.08	1.92	2.08
Tope Creek	2.76	Not regulated	1.68	2.58	1.68	2.41	1.68	2.41	1.68	2.71
Upper Courtney Creek	2.06	Not regulated	1.38	1.73	1.38	1.73	1.38	1.73	1.38	1.73
Upper Mud Creek	3.28	Not regulated	2.13	4.20	2.13	3.84	2.13	3.84	2.13	3.84

As shown in the table above, open road densities for full-sized vehicles under Alternatives 2, 3, and 4 would be under the 2.5 miles per square mile standard described in the Forest Plan. Because OHV use was not prevalent when the Forest Plan was developed, the



standard was developed only for full-sized vehicles. However, for further information, the previous table also displays the open road/trail densities if OHV routes are included in the density calculation. Although Alternatives 2, 3, 4, and 5 are consistent with the Forest Plan, all alternatives show a motorized route density that exceeds 2.5 miles per square mile during the trail use season. The previous discussion for Issue 3 discloses the displacement and disturbance anticipated by alternative as a result of these motorized trail densities.

#### ***Key Issue 4 – Water Quality and Road Density***

*Key Issue – Water quality may be degraded by the density of the trail-riding system.*

On most forest lands the natural rates of soil erosion are low (Dunne and Leopold, 1978). When erosion occurs it is usually because of overland flow – water that flows over the ground surface, detaching soil particles and transporting them downslope. The most important control of soil loss from commercial forests is the extent and nature of road construction. Forest roads tend to be compacted, bare areas with much slower infiltration rates relative to the surrounding forest land. Erosion from forest roads, especially native surface roads, is a large component of the sediment budget (the total amount of sediment that leaves an area) in some forested basins, and because road-generated erosion happens on a frequent basis, it is likely an important component of aquatic habitat quality in many basins (Luce and Black, 2001).

There are at least 2 potential direct effects of forest roads on hydrologic response: 1) the development of overland flow from compacted road surfaces due to reduced infiltration rates; and 2) the interception of subsurface flow by road cutslopes (La Marche and Lettenmaier, 2000). In the Sled Springs Analysis Area, road cutslopes intercept very little subsurface flow, so the primary effect of forest roads on hydrology is the overland flow generated from the road surface. Although collectively road surfaces may occupy less than 0.2% of a total subwatershed, because of their low infiltration rates and lack of vegetation, they contribute a greater percent of total overland flow during small to medium size rain storms than the adjacent forest land (Ziegler and Giambelluca, 1997).

Road erosion differs with soil type, climate, traffic levels, traffic timing relative to precipitation, and availability of erodible material over time. Some controls on surface erosion are soil texture, precipitation depth, type (rain or snow) and intensity, traffic history during dry and wet conditions, time following maintenance operations on road surfaces (especially ditches), flowpaths in ditches or on road surface, and amount of water intercepted by cutslopes (Luce and Wemple, 2001)

Roads that are mostly covered with vegetation or duff, however, are well on their way to recovery. Black and Luce (1999) found that both vegetative growth and armoring caused a rapid decrease in sediment availability in the second year after new road construction – as much as a 72% decrease when no road maintenance occurred since construction. The main reason for this is a reduction in the effect of “rainsplash”. When raindrops hit bare soil they produce a splash which mobilizes fine soil particles and causes them to redistribute across the soil surface, effectively sealing that soil surface which drastically reduces infiltration

rates and contributes to faster production of runoff and overland flow. Vegetation or debris on bare soil is very important in reducing raindrop impact which in turn helps increase infiltration and decrease overland flow (Ziegler, et al., 2000).

The potential effects of forest roads on streamflow in the analysis area should depend on two factors: 1) the volume of water converted to overland flow either by excess runoff from the road surface or by subsurface flow intercepted by the road cut slope; and 2) the delivery of the road-generated runoff to the stream network via the road drainage system. The connectivity of the road drainage to the stream network determines the efficiency by which road cutslope and surface-intercepted runoff are routed to the stream via culverts. Connectivity increases runoff and advances peak flows. At culvert locations, road runoff may: a) re-infiltrate into the soil directly below a ditch relief culvert, b) re-infiltrate below a gully that does not extend to the stream channel, c) enter a stream directly at a stream crossing culvert, and d) enter a stream indirectly through the formation of a gully below a ditch relief culvert. In cases (a) and (b) the road drainage is not connected to the stream network (at least through surface flow). In cases (c) or (d), the road network is connected to the stream network, either directly or indirectly, respectively (La Marche and Lettenmaier, 2000). This project aims to minimize or arrest the delivery of overland flow to the stream network by frequent dips and waterbars to route water off roads and trails so it can re-infiltrate.

Peak discharges for the combined fall and winter periods increased significantly when roads occupied more than 12 per cent of the watershed area (Harr, et al., 1975), however, a paired basin (larger than a watershed) study in coastal Northern California found no detectable change in peak flows from construction of 47 acres of road (Ziemer, 1981). Many factors contribute to the influence of roads on hydrology, and much of the effects of roads on hydrology can be detected and measured on small scales. Bottom line: we know that roads generate overland flow, intercept subsurface flow through cutbanks, and increase drainage density, but at watershed scales we cannot show conclusively that roads increase runoff volumes, runoff peaks, or the timing of runoff (MacDonald, CSU Hillslope Hydrology notes 2001).

If flow paths on new trails and closed roads/ OHV roads are short (i.e. frequent waterbars and drain dips), there is less chance of erosion as the water has less chance to increase in power and detach more soil particles, and very little chance of any sediment it does detach entering a stream. New trails would be on slopes less than 30%.

OHVs are less heavy than full-sized vehicles and have large tires relative to their size. They therefore will cause less compaction; but similar disturbance if roads are wet, and with sufficient traffic, similar disturbance overall. Infrequent blading of trails would allow some vegetation to grow in the middle of trails, and frequent dips and waterbars where trails have a slope would both lessen overall erosion potential.

**Table 13 – Comparison of Alternatives for Key Issue 4, Open Road Densities by Alternative and Subwatershed During and Outside of the Riding Season**

SWS	Existing Open Road Density	Alternative 2		Alternative 3		Alternative 4		Alternative 5	
		During Riding Season	During Closed Season	During Riding Season	During Closed Season	During Riding Season	During Closed Season	During Riding Season	During Closed Season
Buck	2.27	2.14	1.49	1.79	1.5	2.15	1.35	2.15	1.35
Middle Mud	2.53	2.3	1.64	2.14	1.64	2.14	1.66	2.2	1.66
Upper Mud	3.46	2.88	2.43	2.83	2.42	2.84	2.4	2.9	2.4
Upper Courtney	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Tope	3.37	3.0	2.85	3.0	2.85	3.0	2.85	3.1	2.85

Note that Table 13 differs from Table 2 because open road densities in Table 13 include the adjoining private land and private roads within the five subwatersheds displayed in the table.

**Key Issue 5 – Livestock Grazing**

*Key Issue – Authorizing an OHV trail system in the Sled Springs area may adversely interfere with domestic livestock grazing operations because trail users may leave gates open, scatter sheep herds, interfere with herd dogs, interfere with livestock use of stock ponds, and road closures may limit permittee access for completing grazing operations. The potential for conflicts may be greatest with the Mud Creek Allotment because domestic sheep graze this allotment while the other allotments are grazed by cattle.*

**Table 14 – Comparison of Alternatives for Key Issue 5**

Issue and Indicators	Units of Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Issue 5 – Livestock Grazing</b>						
• Designated OHV trail	miles	Unlimited	166	144	158	156
• Roads closed to motorized use	miles	None	70	91	80	83
• Elk security areas	each	0	0	4	2	3

The Sled Springs OHV project includes the Buck Creek, Tope Creek, and Mud Creek grazing allotments permitting livestock grazing to three different family operations. Buck and Tope Creek allotment permits authorize 310 cows with calves to graze from 6/1 – 10/31, and 107 cows with calves to graze 6/1 – 9/30 respectively. These allotments are managed using deferred rotation grazing systems. Mud Creek allotment permits 750 ewes with lambs with season of use from 5/10 – 9/25 herded in a circular motion and managed in conjunction with private land. Each allotment is monitored and managed to meet Forest Plan and Pacfish/Infish standards and guidelines. A number of range improvements are attached to each allotment and maintained by each permittee.

Under Alternative 1, current use of roads and trails and cross-country use by vehicles and OHV would remain the same. Livestock grazing operations and OHV use would continue under the current situation, which generates relatively few conflicts.

Under Alternatives 2, 3, and 4, the following direct, indirect, and cumulative effects would occur.

**Direct/Indirect Effects** – The action alternatives generate considerable concerns from livestock grazing interests within the analysis area. These concerns would be addressed through a combination of (1) OHV trail system design and (2) an adaptive monitoring approach to address permittee concerns.

Trail system design features and mitigations include

- Replacing gates with cattleguards where OHV routes intersect fences.
- Leaving security areas for elk which also provide blocks for livestock grazing away from motorized trails.
- Maintaining an agency presence during the riding season to discourage the potential for vandalism of range improvements or harassment of livestock.
- Authorizing permittees motorized entry on closed roads when needed to establish sheep herder camps.
- Requiring the establishment of an OHV-washing strategy when large special-event trail rides are scheduled.

The adaptive monitoring approach to address permittee concerns includes the following:

- Facilitating communication between the trail system coordinator and permittees so that immediate conflicts between the trail system and permittee operations can be addressed as needed. Conflicts may be addressed by educating riders, issuing citations, or closing trails to OHV use when sheep bands are using a particular area.
- Holding an annual meeting with permittees to review the past trail-riding season and needs for trail system adjustments.
- Monitoring for the spread or invasion of noxious weeds and adjusting the trail system if needed to control further spread or invasion.

The previous design features, mitigation, and monitoring were developed to address permittee concerns about introducing an OHV trail system into the Sled Springs area. The concerns focused on the bigger issue of how designating an OHV trail system in the Sled Springs Area could attract a concentration of OHV use from other areas. Some of the permittees expressed the following concerns about concentrated OHV use:

- OHV traffic could separate pairs, create livestock stress, possibly affecting breeding success or increasing the difficulty in gathering cattle in the fall.
- Livestock distribution-could cause concentration of livestock in areas causing localized excess utilization to vegetation.
- Gates may be left open by OHV riders causing livestock to be in the wrong pastures.

- Increased recreation use may result in a higher incidence of vandalism to range improvements.
- Increased incidence of livestock/OHV encounters could endanger riders and/or livestock
- A higher incidence of the public accessing spring sites as drinking water, could increase resource concerns about springs site impacts.
- Developed stream crossings for OHV trails could make the stream area more available to livestock, creating undesirable impacts to fisheries and water quality.
- The trail system may result in a higher incidence of noxious weed invasion and dispersal
- The risk of human-ignited wildfires may increase with increased recreational use of area.
- Road closures may limit permittees' ability to maintain range improvements, manage livestock or move sheep herder camps.
- The trail system could decrease the value of returns from livestock production, if optimal weight gains are not realized due to livestock/OHV and recreational activities/conflicts.

These concerns regarding designating an OHV trail system are common to the four action alternatives. The general topographical characteristics of the project area, includes steep canyons, narrow bottoms and ridgetop systems. The majority of the livestock grazing occurs on the flatter ridgetops, which is also where the majority of the OHV trail system opportunities exist. Some minor variations among the effects of the action alternatives exist. Alternative 2 includes widespread trail locations throughout the ridge systems in the project area increasing possible conflicts with livestock and recreationists. Alternative 3 retains the largest blocks of area maintained with no OHV trails, which would impact livestock operations to a lesser degree. Potential conflicts between livestock operations and OHV use under Alternatives 4 and 5 would fall somewhere in between Alternative 2 and 3. The design features, mitigation, and monitoring would address these permittee concerns under each of the action alternatives.

**Cumulative Effects** - Three ongoing fuel treatment projects are still active within the Sled Springs OHV Project area. The Tope Creek Allotment includes Burning Block #NF5 which contains approximately 300 acres of open grasslands within the South Pasture. Mud Creek includes an insignificant area of open grassland in burning block #95 of the Biomass Timber sale. Buck Creek contains approximately 150 acres of open grassland type within burning block #72 of the Buck Timber Sale. These open grassland types to be burned are also where the majority of the livestock grazing occurs. If the OHV project causes livestock distribution to change, the change in distribution caused by the burning projects may compound the situation. This effect on livestock distribution would be monitored, and portions of the trail-riding system would be closed as needed to minimize the effect on livestock operations.

#### ***Key Issue 6 – Quality of Trail Riding Experience***

*Key Issue 6 – The proposed OHV trail system may not optimize the trail riding experiences that are available in the Sled Springs Area.*

**Table 15 – Comparison of Alternatives for Key Issue 6**

Issue and Indicators	Units of Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Issue 6 – Quality of Trail Riding Experience</b>						
• Newly constructed OHV trail	miles	0	18	17	20	25
• Trails following former logging roads	miles	unlimited	71	54	64	60

Alternative 1 maintains the existing condition. With the current network of user-built trails, OHV experience is higher than in other General Forest Areas across the Wallowa-Whitman. Overtime, the user-built trails would be closed off through the National direction to prohibit cross-country travel, and the expected completion of the new Forest Plan.

Alternative 2 provides a high-quality experience with a high-density network trail system; the most miles of trail riding opportunity of the action alternatives. However, most of the miles available to the OHV rider would be roads, which provides a reduced positive experience over a trail.

Alternative 3 provides a very good trail network over the existing condition; however this alternative provides the least number of miles of the action alternatives. The season of use restrictions with this alternative confine OHV use to a two-month use season, reducing opportunity for a high quality OHV experience. This alternative provides the most non-motorized elk security areas of the alternatives, increasing the opportunity for non-motorized opportunities and experiences (such as for hunting). This concentrates the motorized opportunity to fewer miles, increasing encounters of users.

Although Alternative 4 would provide 5 fewer miles of trail-riding opportunity over the Proposed Action (Alternative 2) this alternative provides the highest quality of OHV experience of the action alternatives. The interdisciplinary team had opportunity to incorporate OHV-users comments on the proposed action in refining the trail system design, while integrating resource concerns. This alternative provides half as many non-motorized elk security areas compared with Alternative 3. With two non-motorized elk security areas, Alternative 4 increases the opportunity for non-motorized opportunities and experiences (such as for hunting) over Alternative 2 and the No Action alternative. There is less concentrated motorized use than with Alternative 3, increasing the positive experience for the OHV user. Lastly, this alternative constructs two more miles of connector trail over the Proposed Action, which provides additional ‘trail’ experience as compared to a strict ‘road’ experience.

Alternative 5 provides a similar number of trail-only opportunities as to Alternative 2 and 4, with slightly more miles of newly constructed OHV connector trails. This alternative provides additional elk security areas (similar to Alternative 3), and an area closure on McAllister Ridge during hunting seasons, while providing opportunity on the remaining 76 miles of OHV-only trail for continued OHV trail riding. Alternative 5 has potential to provide the longest season of use among alternatives for OHV-users over the portion of the trail system outside of McAllister Ridge (76 miles of OHV-only routes). With three non-motorized elk security areas and the hunting season closure on McAllister Ridge, Alternative 5 increases the opportunity for non-motorized opportunities and experiences (such as for hunting) over the other alternatives.

## Recreation Resources

Recreation resources are described below with respect to recreation opportunities and scenery.

### *Existing Conditions – Recreation Opportunities*

Recreational use of the National Forest System has increased in recent decades. Since 1946, the number of visits to the National Forest System has increased 15 to 20 times, to 214 million in 2001. Off road motor vehicle use for public enjoyment of the National Forest System has also increased. The number of OHV users has climbed sevenfold in the past 30 years, from approximately 5 million in 1972 to 36 million in 2000. OHV users account for approximately 1.8 million or 5 percent of visitors to the national forests and grasslands. Motor vehicle use off roads in the National Forest System may involve any motor vehicle that can travel off road, such as a sport utility vehicle (SUV) and an off-highway vehicle (OHV).

The expansion of OHV use on national forests and grasslands is impacting the natural and cultural resources of federal lands. The Chief of the Forest Service has identified unmanaged recreation -- especially impacts from OHVs -- as one of four key threats facing the National Forests today. Some OHV use has resulted in unplanned roads and trails, soil erosion, watershed and habitat degradation, as well as impacts on cultural resource sites. At the national level, the Forest Service is revising its policy governing the use of wheeled motor vehicles to develop a system of roads, trails and areas designated for motor vehicle use. This new policy would still provide public opportunities for motorized and non-motorized recreation, while enhancing protection of habitat and aquatic, soil, air and cultural resources.

State-wide trends in Oregon OHV use are best displayed in permit issuance. There has been a doubling of issued permits over a five-year period, from 27,609 in 1999 to 71,135 in 2003. Locally, on the Wallowa-Whitman National Forest, 654,500 visitors were recorded in 2003 during the National Visitor Use Monitoring period. An estimated 56,600 people participated in OHV activities, with 13,900 people of that total recreating on designated trails on other Ranger Districts on the Wallowa-Whitman National Forest. The majority of use currently uses existing open and/or closed roads, with cross-country travel.

The Wallowa Valley Trail Riders Association, a local motorized advocacy group, has been working with the Wallowa Valley Ranger District in promoting a responsible trail system since 1997. Refer to Chapter 1, Scoping for a description of these efforts. A Feasibility Study was completed in January, 2004 by the Wallowa Valley Ranger District in cooperation with the Wallowa Valley Trail Riders Association. The Feasibility Study relied on the Tri-Forest OHV Strategy—Phase 1 (available in the analysis file) to assess areas for developing a trail system. The Tri-Forest OHV Strategy summarizes and displays a 'risk assessment' in a comprehensive overview of natural resource, geographic and social issues to developing an OHV trail system in specific watersheds in the Blue Mountain area of National Forests, which includes Wallowa Valley Ranger District. This assessment proved key to displaying areas that the District could focus on in developing an OHV trail system, and the Sled Springs area was identified as a key area for an OHV trail system. The

Feasibility Study and Tri-Forest OHV Strategy are available in the analysis file.

The project area has had three club events with a special use permit issued. OHV activity is increasing in the local area, and cross-country travel routes are developing into user-built trails. Most of these user-built trails are club members repeatedly using the same trails, with some routes flagged with colored ribbon by the club for their events.

Overall, the Sled Springs area provides a variety of recreational opportunities, both motorized and non-motorized. Throughout the summer season, sightseeing, berrypicking, woodcutting activities, and scouting for the upcoming fall hunting season are the main activities. No developed recreation sites occur in the area, although there are numerous dispersed camping sites, mainly distributed along streams and on ridges near good access points for hunting. Some conflicts have occurred between OHV-users and hunters who rely on the availability of non-motorized areas.

A mix of land use classifications occur in the project area. Many of the broad, timbered ridges near State Highway 3 are Roaded Modified classification shifting to a Roaded Natural classification the further you travel west from the State Highway. These areas can be best described as substantially modified (through timber harvest) to mostly naturally appearing landscapes. As road improvements diminish and conditions are more of a two-track, unsuitable for car travel, the classification is best described as Semi-Primitive Motorized, with a predominately naturally appearing landscape. The large, unroaded drainages of Tope Creek Roadless Area is in the northwest portion of the project area, and is a Primitive Non-motorized classification.

The current road density providing motorized access to the recreating public is very high in the Sled Springs project area. An expectation by local users is that you can drive where you want to, except in the Roadless Area.

### *Alternative 1 – Recreation Opportunities*

**Direct/Indirect Effects** – In the short term (next five years), recreational opportunities would change little with the No Action alternative. The release by the Forest Service Washington Office of the Final Rule for OHV Travel on November 2, 2005, provides firm direction to assess and limit OHV Travel cross-country, and to designate acceptable motorized routes in a given area. With this ‘OHV Rule’ will be restrictions to OHV-users likely by the end of the short term period, across the northern portion of the Wallowa-Whitman National Forest. As OHV restrictions increase across National Forest System lands, pressure by OHV-users for new routes to be developed, or an increase in illegal OHV-use will occur.

There would be no immediate change to hunting experience with this alternative, but a significant change once the OHV Rule is implemented and cross-country travel prohibited. The existing road network would stay unchanged, and no areas large enough to qualify as elk security would be created. Hunters who prefer motorized access would prefer Alternative 1, while hunters who prefer areas with no motorized travel and wish for a more walk-in experience would not prefer this alternative.



The amount of recreational opportunities for existing uses of the Sled Springs area would continue to remain the same. Primary uses such as small forest products gathering, and dispersed camping associated with hunting seasons are not expected to change.

**Evolving Baseline Condition** – The area over which cumulative effects will be analyzed is the northern portion of the Wallowa-Whitman National Forest. This area consists of the Wallowa Valley Ranger District, the Eagle Cap Ranger District, and the Hells Canyon National Recreation Area and is 1.3 million acres in size. Conditions for recreational opportunities are not expected to change significantly; however, National policies such as the ‘OHV Rule’ reduces un-managed recreational opportunity, and National budget trends along with Forest Service budgetary priorities would likely reduce opportunity as services offered to the public are reduced.

### *Alternative 2 – Recreation Opportunities*

**Direct/Indirect Effects** - Some non-motorized recreationists are expected to be displaced, as more motorized recreationists use the area. However, new non-motorized recreationists such as mountain bikers looking for riding opportunities, would begin to use the area.

Land use classifications would not change, but some experiences of solitude in the Semi-Primitive Motorized areas may be reduced.

No physical changes would occur in the Tope Creek Roadless area. Non-motorized recreationists may see more motorized recreationists near the Roadless area on trail systems which may alter their sense of tranquility; however, non-motorized recreationists’ experiences once in the Roadless area would remain the same.

An increase in OHV users would occur in Alternative 2. In addition, an increase in overnight use of the project area, especially the staging area adjacent to Highway 3 would occur. Most use is expected to occur as ‘day-use’ with either local motorized recreationists or visitors to Wallowa County taking their OHVs up to the trail system for a day.

Seasonal restrictions with Alternative 2 would focus the OHV users within a June 15 through the start of winter (snow depth accumulations of 12 inches) operating season. This well-defined use season limit the OHV-users’ motorized recreational opportunity to a summer/fall season. Local club members have stated a preference for use in the spring season; therefore there is a reduced enjoyment of the trail system by some OHV users. Additionally, the users experience would be reduced due to the potentially dusty conditions of the trail, and possibly subject to further restrictions if fire danger elevates to a point of travel restrictions.

Alternative 2 has the highest number of trail miles (summation of roads converted to trails and new construction), and provides a good amount of ‘trail experience’ to the OHV-user. ‘Trail experience’ is a positive attribute to OHV-user experience compared to riding on an open full-sized vehicle road.

There would be a reduction from current levels in miles of open, motorized roads with Alternative 2. In addition, the trail system would be converted from a user-built, un-

enforced system to a Forest Service constructed, managed system. This would result in increased needs and costs for law enforcement and signing to manage the system of restricted roads and trails.

The overall reduction in motorized access with the action alternatives may increase the density of motorized users on the remaining open designated routes. The increased interaction by Forest visitors may result in increased user or resource conflicts and impacts. This could result in an overall effect of loss of enjoyment of the recreation activity for some people in some of the areas. A secondary effect of decreasing motorized access and decommissioning roads would be reduction of accessing hunting areas by motorized vehicles and increase in non-motorized opportunities.

The design of this alternative did not include elk security areas, and none are created. Hunters who desire motorized access may prefer Alternative 2, while hunters who prefer areas with no motorized travel and wish for a more walk-in experience would not prefer this alternative. Alternative 2 does close 61 miles of existing roads, but retains a network of roads and trails throughout the entire analysis area somewhat similar to Alternative 1. This alternative immediately changes hunting experience primarily through prohibition of cross-country travel, and may favor those hunters who prefer to access areas with OHVs for their hunting experience.

The Tope Creek inventoried roadless area has essentially remained unchanged (total acres) in the past decade. The action alternatives' road and trail management activities are not expected to have any significant effect on inventoried acres during the next decade. The closure of ½ mile of road (Road 3025) at the end of McAllister Ridge would provide an increased measure of compliance with management intent.

**Cumulative Effects** - The primary past activities are vegetation treatments, such as thinning and burning. These activities reduce tree density, and have no real affect to recreational opportunity, but do have an affect on recreational experience. Hunting experiences change significantly, as sight distances are improved to allow hunters to see game more readily; conversely, fewer game species use the open areas during active part of hunting season, presenting fewer opportunities to the hunter.

Access has also been reduced as past decisions have included closing roads. This reduces opportunity for small forest products gathering; however, has increased non-motorized recreational opportunity such as hunting.

Present activities continue to be vegetation management; primarily grazing and noxious weed treatment. These activities do not have an effect on recreational opportunity. Unregulated recreational activities are currently occurring, with cross-country OHV travel and OHV trail development through repeated use between road systems being the primary impact. Alternative 2 would eliminate this unregulated use, and over time, the effects of this use would disappear.

The release by the Forest Service Washington Office of the Final Rule for OHV Travel on November 2, 2005, provides firm direction to assess and limit OHV cross-country travel and to designate acceptable motorized routes in a given area. With this 'OHV Rule' would be restrictions to OHV-users likely by the end of the short term period (next five years) across

the northern portion of the Wallowa-Whitman National Forest. As OHV restrictions increase (cross-country travel or by reduced route--trail/road--opportunities) across National Forest System lands, pressure by OHV-users for new routes to be developed, or an increase in illegal OHV-use would occur.

The net cumulative effect of all of the activities proposed with Alternative 2 is more overall recreation occurring in the Sled Springs area, but less unmanaged recreation. Routes would be designated, and cross-country travel would be prohibited.

### *Alternative 3 – Recreation Opportunities*

**Direct/Indirect Effects** – Effects would be similar as described above for Alternative 2, with the following exceptions.

Seasonal restrictions with Alternative 3 would focus the OHV users within a June 15 through end-of-August (depending on the start of bow season) operating season. This well defined use season would limit motorized recreational opportunity to a few months in the summer, and would substantially reduce enjoyment of the trail system by the OHV user. Additionally, the users experience would be reduced due to the potentially dusty conditions of the trail, and possibly subject to further restrictions if fire danger elevates to a point of travel restrictions.

Alternative 3 has the highest amount of road closures of the action alternatives, therefore increasing the amount of available area to recreational users who prefer a non-motorized experience. Conversely, there are fewer miles of motorized routes available to recreational users, reducing the opportunity for access to such activities as small forest products gathering (e.g. firewood, mushrooms), and reducing the overall miles of routes to OHV users.

The design of this alternative includes the most elk security areas of all the alternatives (four total). Hunters who prefer fewer miles of motorized access (trails and roads) would likely prefer this alternative. In addition, Alternative 3 closes the most miles of existing road for motorized access, and adds a hunting season closure (bow season through the other fall hunting seasons) over the OHV trail system. Hunters who prefer a motorized access experience would likely prefer this alternative the least.

**Cumulative Effects** – The contribution of past, present, and foreseeable future actions to cumulative effects described under Alternative 2 are the same for Alternative 3.

### *Alternative 4 – Recreation Opportunities*

**Direct/Indirect Effects** – Effects would be the same as for Alternative 2 with the following exceptions.

Seasonal restrictions are the least of all action alternatives with Alternative 4. Basing the riding season length on appropriate soil moisture would allow the longest season of use for

OHV-users. In addition, the opportunity to ride in the early part of the season when dust is minimized is preferred by the local OHV club, and increases user-satisfaction of the trail system. OHV-users may experience further restrictions if fire danger elevates to a point of travel restrictions, and additionally may see more restrictions if rain events that elevate soil moisture conditions to concern-levels require mid-season short-term trail closures.

Alternative 4 provides slightly fewer trail miles (summation of roads converted to trails and new construction) than Alternative 2; however trail design incorporated OHV-user scoping comments on trail location where appropriate with other resource considerations. With OHV-user-perspective trail design, Alternative 4 provides greatest amount of ‘trail experience’ to the OHV-user. ‘Trail experience’ is a positive attribute to OHV-user experience compared to riding on an open full-sized vehicle road. In addition, Alternative 4 directly contributes to the highest level of OHV-user satisfaction of all the action alternatives, with emphasis on loop trail designs and scenic area views.

Cross-country travel is prohibited the same for each action alternative in the Sled Springs project area.

Alternative 4 is quite similar to Alternative 3 in total miles of existing road closed, and creates two elk security areas. This alternative would likely provide a good experience in some of the analysis area for hunters who prefer a walk-in hunt, but would be less preferential for this type of experience over Alternative 3. The main difference is the lack of a seasonal closure for the trail system during hunting season. Although motorized access is reduced with this alternative in comparison to Alternative 2, more access is provided than Alternative 3 (about 14 miles more).

**Cumulative Effects** – The contribution of past, present, and foreseeable future actions to cumulative effects described under Alternative 2 are the same for Alternative 4.

### *Alternative 5 – Recreation Opportunities*

**Direct/Indirect Effects** – Effects would be the same as for Alternative 2 and Alternative 4 with the following exceptions.

Seasonal restrictions would be different than the other action alternatives with the hunting season closure to all motorized vehicles of the McAllister Ridge area. The area closure would reduce riding opportunities, as well as general forest use over 9 miles of trail and 6 miles of road. Hunting opportunities would change from a roaded access to a walk-in experience within the McAllister Ridge area.

The focus on end-result restrictions (avoiding soil damage) would allow the longest season of use for OHV-users over the portion of the trail system outside of McAllister Ridge (76 miles of OHV-only routes). OHV-users may experience further restrictions if fire danger elevates to a point of travel restrictions, and additionally would see more restrictions if rain events elevate soil moisture conditions to the point that trigger mid-season short-term trail closures. Even with the possibilities with mid-season closures, the opportunity to ride in the early part of the season when dust is minimized is preferred by the local OHV club, and increases user-satisfaction of the trail system.

Alternative 5 provides slightly fewer trail miles (summation of roads converted to trails and new construction) than Alternative 2. However, where appropriate with other resource considerations, trail design incorporates OHV-user scoping comments on trail location. With this OHV-user perspective in trail design, Alternative 5 provides the greatest amount of ‘trail experience’ to the OHV-user, more than Alternative 4. ‘Trail experience’ is a positive attribute to OHV-user experience compared to riding on an open full-sized vehicle road. In addition, Alternative 5 directly contributes to the highest level of OHV-user satisfaction of all the action alternatives, with emphasis on loop trail designs and analysis area views.

Cross-country travel is prohibited the same for each action alternative in the Sled Springs project area with one exception; Alternative 5 includes the Powwatka Ridge area as closed to cross-country travel. Additionally, this alternative adopts as open routes to OHV and other motorized vehicles those routes designated as open with previous vegetation management (timber harvest) decisions.

**Cumulative Effects** – The contribution of past, present, and foreseeable future actions to cumulative effects described under Alternative 2 are the same for Alternative 5.

### *Existing Conditions – Scenery*

Landscape aesthetics are described for this project relative to the Visual Management System used in the Forest Plan and the more recent Scenery Management System (USDA 1995).

The Forest Plan used the Visual Management System to place virtually all of the analysis area in a classification of ‘Modification’. State Highway 3 borders the analysis area to the east. Views from the State Highway are rated ‘Retention’ because the road is a Sensitivity Level 1 travel route as defined by the Forest Plan.

The Scenery Management System differs from the Visual Management System in that it increases the role of constituents throughout the inventory and planning process, and it borrows from and is integrated with the basic concepts and terminology of Ecosystem Management (USDA, 1995).

The geographic features of the Project Area have resulted in scenery that is somewhat homogenous with more dramatic features along the western boundary where the more rugged canyon features of Mud Creek, McAllister Creek, and Tope Creek are visible. When subjected to historic wildfire regimes, the Sled OHV Analysis Area contained a mosaic of vegetation. North facing aspects and cold pockets supported thicker stands of grand fir, Douglas-fir, and lodgepole pine. South facing aspects and ridges were dominated by open park-like stands of ponderosa pine, Douglas-fir, and western larch interspersed with natural openings. Existing conditions display the results of wildfire-suppression policies. North facing aspects continue to support thicker stand of trees, but the south facing aspects tend to be more homogenous with more ground fuels and undergrowth and fewer or smaller natural openings. To further describe landscape character, the Sled OHV analysis area has been divided into three landscape units that are defined by a distinct combination of user

experience, geographic similarity, and Forest Plan designations. These units are Upland/Ridge Tops, Highway 3 Corridor, and Dissected Canyonlands.

**Upland/Ridge Tops** - The Sled OHV project area includes the headwaters numerous streams such as McCubbin Creek, Mud Creek, Buck Creek and Burnt Creek, located in the southernmost and easternmost portions of the project area. Topography is relatively gentle with undulating hills and drainages. Stands of trees are dominated by the Understory Reinitiation and Stem Exclusion Closed Canopy stages with a noted absence of late and old structural stages. Past clearcuts from the 1970s and 1980s are well stocked with seedlings approximately 10 feet tall, but even with the regrowth, these clearcuts appear managed. Almost all of the area is accessible by road. Primary use of this area is by those who hunt, camp, pick mushrooms, or drive for pleasure. This area is within Management Area 1.

**Highway 3 Corridor** – The Highway 3 landscape unit consists of the area visible from State Highway 3 along the eastern boundary of the analysis area. Views to the east into Joseph Creek are dramatic, and although it has no special designation, the drive along Highway 3 is scenic. Views into the analysis area are not as dramatic because the topography is gentle, and stands of trees cause the view to be closed in. The stands do not appear as managed as within the Sled OHV project area because the old clearcuts were ‘buffered’ from view of the highway. However, the same general absence of late and old structure still occurs. Primary use of this area is by those traveling from Enterprise, Oregon to Lewiston, Idaho. Some local traffic occurs between Enterprise and Flora and Troy, Oregon. All of this area is within Management Area 1, but the Forest Plan designated State Highway 3 as a Sensitivity Level 1 travel route.

**Dissected Canyonlands** – Tope Creek, McAllister Creek, and Mud Creek are the major drainages that dominate the western and northern portions of Sled OHV analysis area. These canyonlands are part of the Tope Creek Roadless Area. A remnant of late and old structure occurs within this area. Evidence of dispersed campsites exists. The primary use of this area is probably by those who hunt and want to spot game in the canyon. This area is dramatic because of the depth and distance of the canyonlands, and has undeveloped views. The area is within Management Areas 1 and 3.

### *Alternative 1 – Scenery*

**Direct/Indirect Effects** – Un-regulated recreational activities are currently occurring, with cross-country OHV travel and OHV trail development through repeated use between road systems being the primary impact. With no managed design to these impacts, over time these activities would degrade aesthetics by ruts and soil movement where visible from open roads. Despite the degradation of aesthetics, Visual Quality Objectives (VQOs) would be met as a larger disturbance than site-specific rutting would need to occur before it was considered inconsistent with the VQO.

**Evolving Baseline Condition** – The area over which cumulative effects will be analyzed is an area bounded by Powwatka Ridge to the west, the National Forest Boundary to the north and south, and State Highway 3 to the east. Conditions for landscape aesthetics is not thought to be changed over time with Alternative 1.

No project-related activities would occur to alter landscape aesthetics. There is a risk of large stand-replacing fires, and the scenic integrity of the Highway 3 Corridor would be reduced if a large fire burned to the highway boundary. In the absence of a natural fire, the scenic values of the Highway 3 corridor would continue to change at a gradual rate as fuels accumulated and tree densities increased to block progressively more mid-ground and back-ground views.

Landscape aesthetics within the rest of the Sled OHV analysis area would also experience dramatic changes if a large wildfire burned through the area. If a large wildfire did not occur, scenic values would change at a gradual rate as undergrowth and fuel accumulations continued. Trees in the previous regeneration harvest units would continue to grow, and appear less managed.

### *Alternative 2 – Scenery*

**Direct/Indirect Effects** – Effects would be the same as for Alternative 1 with the following exceptions.

Most of the impacts to scenery would be limited to the Upland/Ridgetops view unit. Trail construction would slightly alter aesthetics, increasing the sense of development in the area directly viewed where the development occurs. Conversely, this alternative closes 70 miles of existing open road to motorized travel, which, over time, will reduce the sense of development along those miles of closed roads. A portion of the 70 miles of road had been closed with previous NEPA decisions, but the closures have been breached with motorized access continuing. Implementing this alternative would ensure the closure to be effective with follow-up monitoring to take place.

The staging area is within the Highway 3 Corridor view unit, and the existing screening in place for the existing large rock pit would be retained. One change that would be apparent is signing along the highway that marks the entry points for the OHV trail system.

Although trail locations are adjacent to the Dissected Canyonlands view unit, and provide views of these canyonlands, the trail system would not be visible from within the view unit. Some interpretative signs may be placed along the travel routes, and these may be visible from the Dissected Canyonlands view unit.

**Cumulative Effects** – The primary past activities are vegetation treatments, such as thinning and burning. These activities reduce tree density, and have altered visual aesthetics in the short term (10 to 20 years). Over time, the landscape visual experience would change, and eventually scenic integrity with these past actions would be enhanced as large-diameter trees develop.

Present activities continue to be livestock grazing, and noxious weed treatment. These activities do not affect landscape aesthetics. Un-regulated recreational activities are currently occurring, with cross-country OHV travel and OHV trail development through repeated use between road systems being the primary impact. Alternative 2 would eliminate this unregulated use, and over time, the effects of this use would disappear. Consequently, the cumulative effect would be for a gradual improvement in aesthetic

integrity as harvested and burned areas recover and evidence of unregulated OHV use diminishes.

### *Alternative 3 – Scenery*

**Direct/Indirect Effects** – Effects would be the same as for Alternative 2 with the following exception.

This alternative closes 91 miles of existing open road to motorized travel, which, over time, will reduce the sense of development along those miles of closed roads. A portion of the 91 miles of road had been closed with previous NEPA decisions, but the closures have been breached with motorized access continuing. Implementing this alternative would ensure the closure to be effective with follow-up monitoring to take place.

**Cumulative Effects** – The contribution of past, present, and foreseeable future actions to cumulative effects described under Alternative 2 are the same for Alternative 3.

### *Alternative 4 – Scenery*

**Direct/Indirect Effects** – Effects would be the same as for Alternative 2 with the following exception.

This alternative closes 80 miles of existing open road to motorized travel, which, over time, will reduce the sense of development along those miles of closed roads. A portion of the 80 miles of road had been closed with previous NEPA decisions, but the closures have been breached with motorized access continuing. Implementing this alternative would ensure the closure to be effective with follow-up monitoring to take place.

**Cumulative Effects** – The contribution of past, present, and foreseeable future actions to cumulative effects described under Alternative 2 are the same for Alternative 4.

### *Alternative 5 – Scenery*

**Direct/Indirect Effects** – Effects would be the same as for Alternative 2 with the following exception.

This alternative closes 83 miles of existing open road to motorized travel, which, over time, will reduce the sense of development along those miles of closed roads. A portion of the 83 miles of road had been closed with previous NEPA decisions, but the closure implemented has been breached with motorized access continuing; implementing this alternative would ensure the closure to be effective with follow-up monitoring to take place.

**Cumulative Effects** – The contribution of past, present, and foreseeable future actions to cumulative effects described under Alternative 2 are the same for Alternative 4.



## Wildlife Resources

Wildlife resources are described below with respect to Rocky Mountain elk; snags and downed wood; northern goshawk; designated Old Growth; and Proposed, Endangered, Threatened, and Sensitive (PETS) wildlife species.

### *Existing Conditions – Rocky Mountain Elk*

Rocky Mountain elk is the most popular big game species in northeastern Oregon and is likely responsible for more recreation visitor days than any other single species or activity. Elk are popular among wildlife watchers, outdoor photographers, and hunters. Elk are also a management indicator species on the Wallowa-Whitman National Forest. As a management indicator, elk serve to indicate the condition and function of the habitat that they share with numerous other wildlife species. Elk are an indicator of forage and cover abundance and quality, and the patch dynamics that comprise quality elk habitat.

Additionally, elk serve as a meaningful indicator for those species that are sensitive to human activities since they exhibit greater herd fitness when adequate security habitat is available to them. “Secretive species” is used in this analysis as a general term to refer to the other species for which elk serve as a management indicator. Black bear, cougar, bobcat, and wolverine are some examples of “secretive species” that are known or may occur in the Sled Springs analysis area. The wolverine is an example of a very rare animal that may only occasionally pass through parts of northeastern Oregon.

**Elk Habitat and Populations** - This project is within the Sled Springs Wildlife Management Unit (WMU). The Sled Springs WMU is roughly 1,224 square miles, of which 17% is administered by the Forest Service. The Forest Service portion of this WMU is characterized by steep bunchgrass and rocky canyons separated by relatively flat plateau ridges. The plateau areas between canyons are dominated by conifer forests, which extend down into the canyons on north aspects associated with secondary drainages. The area contains summer, transitional and winter range. Large expanses of grasslands and agricultural lands occupy lower elevation areas in the south and north central parts of the WMU. Much of the western boundary is steep, forested river canyon habitat along the Grande Ronde River.

Two relatively large Travel Management Areas (TMA) exist on private timber company lands within this WMU. The Noregaard TMA is about 175 square miles and extends from the western edge of this analysis area to the Grande Ronde River (west boundary of WMU). The Shamrock/Whiskey Creek TMA is about 65 square miles and is divided into two areas along the north and south boundaries of the analysis area in the east.

These TMAs restrict motorized travel to designated roads from late August through May, which has been effective in distributing elk across available habitat and likely attracting elk off of public lands and onto private lands. This scenario could change since the adjacent private forest lands have been transferred from Boise Cascade Corporation to Forest

Capitol Partners. Forest Capitol has accelerated logging on their lands which has reduced or eliminated much of the security cover. Elk seeking shade during summer or shelter from high winds during winter may have shifted their use to adjacent National Forest lands where a mosaic of forage and cover still exists. At this time no major shift in elk habitat use patterns has been documented, but it stands to reason that during rifle deer and elk seasons that these species will shift to areas with cover to avoid hunters. Elk can tolerate very marginal habitat conditions if disturbance by people is minimized. However, a severe loss of cover (on adjacent private timber lands) combined with hunting pressure is likely to initiate changes in how elk use the Sled Springs WMU. Much of the highest quality summer range exists on National Forest lands within this analysis area. Human disturbance facilitated by roads is the primary factor that limits the quality of summer range on National Forest lands within the Sled Springs WMU.

The management objective for elk in Sled Springs WMU is 2,750, and the current population is estimated at 2,600, with a slight upward trend. Mature bulls have increased in response to limited entry hunting, and spike only regulations. Total (spikes and branch antlered) bull:cow ratios have been as follows for the past four years: 2002 - 8:100, 2003 - 8:100, 2004 - 13:100, and 2005 – 14:100 (Mathews pers. com. 2005).

**Security Habitat** - Elk habitat is typically analyzed by assessing several habitat variables including forage quality/quantity, size and spacing of forage and cover patches, disturbance from motorized access, and cover quality. Since cover, forage and the arrangement of cover and forage patches would not be altered by this project, only the motorized disturbance variable will be analyzed. For the purpose of this analysis motorized routes refers to all categories of roads and trails where motorized travel is not prohibited by CFR. Although roads that receive different levels and frequencies of traffic are believed to have different effects to elk, it would be misleading to categorize roads and trails according to use levels in the absence of actual use data. Some inferences will be made about levels of use for different categories of routes, but all motorized routes will be considered cumulatively in the majority of this analysis. Only summer range is analyzed since the proposed OHV trail system would not be available during the winter months when many deer and elk are concentrated on lower elevation winter ranges.

A plethora of research has examined the effects to elk from roads, of which several studies were conducted as part of the Starkey Project. The research at Starkey is particularly applicable to this project since it is current and conducted in the same general biogeographic setting within northeastern Oregon. Among effects to elk, roads have been viewed as a primary factor influencing distributions of elk across available habitat (Perry and Overly 1977, Lyon 1983, Lyon). Although it is well established that hunted elk populations avoid motorized routes (roads and trails), the effects to elk from OHV's, people on horseback, mountain bikes and hikers has not been studied until recently. The first study of its kind comparing the response of elk and deer to these different modes of human transportation was recently completed as part of the Starkey Project (Wisdom 2005).

Results from the off-road recreation study indicate that all four modes of transportation elicit a flee response from elk to some degree. The study also indicates that OHVs have the greatest effect to elk by causing a flee response further from the source of the disturbance, and possibly by displacing elk from preferred security and foraging areas. Additionally, it took many more hikers and horseback riders to have the same affect as fewer OHVs or

mountain bikes in the same unit of habitat over the same unit of time. This is an important consideration when attempting to balance demands of a diverse recreational population.

A distance band analysis was used to assess security habitat (Rowland 2004). All motorized routes were buffered with bands of 0.36 km each until the entire analysis area was occupied by distance bands. Results of a study on spatial partitioning by mule deer and elk in relation to traffic (Wisdom 2005), and personal communication with Michael Wisdom was used to define relative quality categories of security habitat (moderate, high and optimal). Low quality habitat is not referred to in terms of “security” since it does not provide secure conditions for elk. Low quality habitat exists closer than 0.72 km from motorized activity. Moderate quality security habitat exists between 0.72 km (0.45 miles) and 1.44 km (0.89 miles) from potential sources of disturbance from motorized vehicles (open roads, OHV trails, areas open to cross country motorized travel). High quality security habitat exists between 1.44 km (0.89 miles) and 1.80 km (1.12 miles) from motorized activity, and optimal security habitat is found beyond 1.80 km (1.12 miles) from motorized activity. The analysis area used for the security habitat analysis is roughly 44,000 acres between Tope Creek and Highway 3 (east to west), and the Forest boundary plus minor amounts of private lands around portions of the proposed trail system (north and south) that extend to the Forest boundary or outside the boundary in the case of road 3021 in the southwestern portion of the analysis area. Figures 6, 7, 8, and 9 show the analysis area boundary in red. Summer and winter ranges were combined for the distance band analysis, so the results should be considered with the following qualification. Winter range is largely within the steeper confines of the major canyons and has few roads. Disturbance to elk on summer range is assumed to not be an issue during the winter period since roads are closed by snow and elk are not using the area. Therefore, the distance band analysis that combines winter and summer ranges may over estimate the amount of security habitat for summer range since the majority of security areas are within winter range areas that are not used or lightly used by elk during the summer period.

Motorized route density was also used to compare alternatives and assess the effects of this project on security habitat for elk. The W-W LRMP has separate standards and guidelines for road density for winter range and summer range. This project is located on summer range, so the road density analysis used here is only on the summer range portion of the analysis area, roughly 40 square miles of habitat. The intent of the LRMP standards and guidelines for roads is to maintain certain levels of security habitat for elk (and the species for which they are indicators). For the purpose of this analysis all roads and trails open to motorized travel are combined and referred to as motorized routes. An unknown but substantial number of roads are considered closed in this analysis, but continue to receive motorized use, functioning like open roads. For this reason the motorized route densities presented in this analysis are actually lower than the densities of routes that are influencing elk distribution.

### *Alternative 1 – Rocky Mountain Elk*

**Direct/Indirect Effects** - The only “security areas” for elk and other secretive wildlife species exists in the steep confines of the major canyons. Although elk may withdraw to the canyons when pressed by hunting or high levels of human activity, they generally do not choose to spend much of their time there. Slope may be less of a factor in habitat selection

for some of the other secretive species which are very mobile and largely un-inhibited by steep terrain (bear and cougar). The apparent lack of existing security areas is based on the geographic distribution of roads and areas available to motorized access. cursory observations and the experience of several people who have worked in the Sled Springs area for many years indicates a relatively low level of recreational OHV use. So even though the potential for high levels of disturbance exists, it is not occurring at this time.

The motorized route density for summer range under Alternative 1 is approximately 3.57 miles/square mile, which is 1.07 miles/square mile greater than the maximum standard in the LRMP. This density would exist during the entire snow-free period since no OHV season of use applies to Alternative 1. High road densities, user made OHV trails and absence of restrictions on cross country travel could lead to severe negative effects to elk distribution if actual OHV use increases over time. Based on increases in OHV popularity elsewhere it is reasonable to assume that increased use will occur in the Sled Springs area in the future whether a formal trail system is constructed or not.

Alternative 1 will perpetuate poor distribution of elk across available habitat, particularly during the spring, summer and fall seasons. Elk hunters will continue to be drawn to the Noregaard and Shamrock/Whiskey TMAs, resulting in large areas of the WMU with few hunters and few elk. It is unknown how the accelerated cover loss from logging on adjacent private lands will affect elk, but it is likely to push some elk onto the National Forest where cover exists but vulnerability is high due to high road densities. Elk that occur within and immediately adjacent to the heavily roaded portions of the analysis area are likely to expend an inordinate amount of energy avoiding people; energy that would otherwise be used for body maintenance, reproduction, and predator avoidance. The result of this disturbance is 1) fewer elk on public lands for viewing and hunting, 2) increased utilization of range where elk congregate, 3) increased range, crop, and fence damage on private lands, 4) negative physiological effects to individual animals related to stress and resource acquisition, and 5) behavioral changes that negatively effect herd dynamics. These negative effects to elk could occur at any time during the spring/summer/fall period on summer range. Snow limits motorized access by OHV's, motorcycles, and full-sized vehicles, reducing the level of disturbance during winter months.

Approximately four months of the year (see Table 10) would have low use by OHVs, six months (April – August, and late November) receive moderate use, and the highest use occurs during September, October and early November when big game hunts are occurring. However, it is likely that disturbance levels would remain low to moderate during most of the snow free months under Alternative 1 since the area would not be promoted as a destination for OHV users from a broader geographic area. The unpredictability of motorized activity on closed roads and cross country would remain the greatest source of concern for elk security. Elk tend to distribute themselves more predictably when motorized traffic is restricted to specific routes. The random, unpredictable access provided under Alternative 1 would perpetuate the poor elk distribution situation that currently exists in parts of this WMU.

Alternative 1 could have the most negative effect to elk (and the species for which they serve as indicators) **if** use of OHVs increases in Wallowa County at or near the rate of increase experienced over the past decade in the western US. All indications are that OHV popularity, sales, and use will continue to increase, but the increase may not affect Wallowa

County as severely as public lands closer to human population centers. If the growth in OHV use remains constant or grows slowly in Wallowa County, then Alternative 1 could have less of a negative effect to elk and other wildlife than Alternatives 2, 4 and 5. The unknown factor for determining which alternative would result in the greatest effects to wildlife is whether OHV use levels will increase in Wallowa County proportional to OHV popularity in other parts of the western US. A developed trail system that is advertised and promoted to user groups would definitely result in an increase in OHV use and result in an increase in disturbance to elk and other wildlife.

**Evolving Baseline Condition** – Logging on adjacent private timber company lands is an important consideration when assessing cumulative effects of all alternatives. A reduction in cover on adjacent private lands is very likely to influence how elk and other wildlife use the area, whether they remain on the appropriate seasonal ranges, how vulnerable they are to human and natural predators, and how efficiently elk balance their energy expenditures. The reason(s) many elk use closed canopy forests in higher proportions than it is available is(are) not fully understood. But, “one can argue that, in choosing a roof over its body, an elk avoids exposure to the great heat sink of the sky on cold, clear winter nights” (Folk 1966 in Toweill & Thomas 2002). Likewise, high summer temperatures can be moderated through the use of vegetative cover that shades and insulates to hold in cooler temperatures that occur during night hours.

A coarse review of the Notices of Intent to Harvest records on file with the Oregon Department of Forestry (ODF) indicates some general patterns of logging in the townships that overlay the Sled Springs OHV Trail project area. These records are organized by township and track acres harvested and timber volume harvested by calendar year. Records from 1990 through 2007 were examined for this analysis (ODF 2008).

Due to the coarse nature of this data, assumptions based on past experience and field observations are necessary to infer anything from these data. Generally a substantial increase in timber volume coinciding with relatively small acreage harvested indicates high volume per acre logging, which represents regeneration logging as opposed to intermediate entries. Regeneration logging typically converts cover stands to foraging areas through a reduction of canopy closure to near zero. When a marked increase in acres correlates with low volume one may assume that commercial thinning or some other intermediate entries are occurring. In this case cover is likely being reduced, but perhaps not eliminated completely in treated stands.

The years 1990, 1991, and 1993, then again in 2002, 2003, 2004, 2005, and 2006 show patterns that indicate a loss of conifer cover based on substantial increases in timber volume from several of the townships examined. Some hiding cover may have recovered from the logging in the early 1990’s, but the loss of cover from 2002 - present will persist for a decade or more until these stands grow into hiding cover (thickets of sapling and pole sized trees). Acres and volume harvested dropped substantially in many townships in 2007, likely due to there being very little or no commercial sized trees remaining. Timber values in 2007 could have also played into the drop in harvest levels in some of these townships.

Logging information from ODF and aerial observations of the neighboring private timber lands show a marked increase in regeneration logging and a resulting loss of conifer cover

within the Sled Springs WMU. The effects from these actions will influence how elk utilize habitat. Elk are known to tolerate suboptimal habitat conditions in exchange for security from human disturbance. Elk will use areas with very little cover and marginal quality forage if they feel secure from human disturbance. However, there are tradeoffs for seeking these secure habitats. During hunting seasons, particularly rifle seasons, elk's vulnerability to hunters increases. This is important because one of Oregon Department of Fish and Wildlife's considerations when setting hunting tag numbers is predicted hunter success rates. If this success rate changes substantially, then tag numbers would need to be adjusted accordingly for subsequent years. Reductions in tag numbers decreases recreational opportunity and seasonal income to small communities.

Grigg (2007) found that "elk responded to motorized access during the summer by increasing summer home range size." Increases in home range size in response to disturbance leads to inefficient energy expenditures and goes against the well established "law of least effort", which "ensures economic expenditures of ingested energy and nutrients" (Geist in Toweill and Thomas 2002). Grigg also concluded that elk subjected to hunting in areas with greater motorized access moved to winter ranges on privately owned ranchlands in his southwest Montana study area. All of the elk in Grigg's study "summered on public lands, yet most elk summering in heavily hunted regions were unavailable to public-land hunters for large portions of the hunting seasons due to early fall migration patterns." These early fall migration patterns were attributed to higher levels of motorized access on summer ranges.

It is unknown whether hunted elk will be pushed onto National Forests where better cover exists, or will they remain in areas with low motorized access and where they are subjected to an increased harvest rate by hunters. One reasonable scenario is that elk near the edges of Shamrock and Noregard TMA's will be pushed into the Sled Springs OHV project area once pressured by hunters. Once there the level of disturbance from a high density of motorized routes will force elk into the steep canyon habitats or to move greater distances to agricultural and ranch lands. If this occurs, experience has proven that increases in fence damage, crop depredation, and roadkill can be expected.

Having high levels of motorized access and trying to maintain an elk population on a shared landscape comes with costs. High bull vulnerability to poaching and legal hunting, conflicts on private lands, a lack of elk on public lands for the public to experience, and overuse of seasonal winter ranges are some of these costs. A more desirable scenario from a social and ecological standpoint is to have hearty elk populations commensurate with habitat capability, that are well dispersed across available habitat, exhibit high reproductive fitness, use seasonal ranges during the appropriate times of the year, and cause few conflicts on ranch and agricultural lands.

Past logging, road construction (and subsequent use), prescribed burning, hunting, OHV riding, and grazing by domestic sheep and cattle represent the past, present and reasonably foreseeable actions that contribute to cumulative effects to elk in this analysis area. The "no action" alternative will not represent a direct incremental effect, but there are negative effects from choosing to not pursue road closures, establish a season of use, and restricting OHV use to a designated trail system.

Minor and short-lived benefits from prescribed fire would occur on 3,755 acres that are

planned for burning. Forage will improve in quality and quantity for one to three years following burning. However, these positive effects can be largely negated if cattle and sheep utilize this forage in late summer, and/or if motorized access disturbs elk to a point that they avoid the newly enhanced foraging areas.

Biomass (1996), Buck (2000), Wolf (2001) and Biomass 3 (2004) timber sales have reduced hiding and thermal cover for elk on approximately 3,600 acres through commercial thinning and salvage. These projects focused on the flatter timbered ridges between major canyons. The reduction in cover is most noticeable in the eastern portion of the analysis area. These projects with their associated road construction and subsequent recreational access have likely reduced elk use in much of the eastern half of the analysis area, and have made elk and deer more vulnerable to hunting, poaching, and collisions with motor vehicles. .

Grazing by cattle in the Tope Creek and Buck Creek allotments have likely resulted in displacing elk from public summer range during late July through September, particularly during drier and warmer summers. Direct competition for limited forage occurs during drier years late in the summer, and cattle out compete elk in these instances (Vavra pers. com. 2005). The Day Ridge allotment likely has a negligible effect to elk due to the early and brief grazing season, and the low stocking numbers.

The Mud Creek sheep allotment likely contributes to reduced quality elk habitat in two ways. First the reduction in available forage from late July through September forces elk to other portions of the WMU to find forage. Second, sheep herds are accompanied by herders, guard dogs, and the associated noise and traffic related to moving the herd, watering, and moving camps. Personal observations from the Meachum Creek area on the Walla-Walla Ranger District of the Umatilla NF show that these activities displace elk, at least temporarily. Temporary displacement in late summer when elk are accumulating fat for the winter could reduce the chance of elk surviving through winter or reduce reproductive capacity of an elk herd. If pregnant cow elk do not have sufficient body fat going into the winter, they will not produce young the following spring.

Alternative 1 would perpetuate the existing un-regulated, but relatively light OHV use that is occurring. An increase in OHV use is expected, but perhaps not proportionally to the increase in OHV popularity closer to areas with higher human populations. The existing road densities would continue to facilitate disturbance from motorized traffic, spread of noxious weeds, and poaching of wildlife. These effects would combine with the aforementioned logging and grazing to perpetuate poor to marginal habitat conditions and undesirable distributions of elk and other wildlife species.

### ***Alternative 2 – Rocky Mountain Elk***

**Direct/Indirect Effects** - Approximately 61 miles of existing roads would be closed, however these are individual roads distributed across the analysis area and generally do not create enough distance between open roads to provide security habitat for elk.

The full-sized vehicle and OHV motorized route density under Alternative 2 is approximately 4.45 miles/square mile on elk summer range during the spring/summer/fall

seasons. Approximately 75% of the analysis area would provide low quality elk habitat from the standpoint of motorized disturbance. Moderate security habitat would exist on 12% of the area, and high quality security habitat on 4% of the area (Table 11). Up to 7 % of the analysis area shows up as optimal habitat in the GIS distance band analysis, but this is an artifact of how the distance bands extended onto private lands to the north and south, and does not necessarily represent areas of low motorized access. There is actually no optimal habitat provided by this alternative. Figure 6 is a visual display of the distance band analysis for Alternative 2.

There would be approximately 5 months of the year (see Table 10) when OHV use is expected to be moderate (one month) and high (4 months), overlapping important times when elk would benefit from low disturbance (rutting and the last half of calving).

Alternative 2 would be similar to Alternative 1 in terms of negative effect to elk (and the species for which they serve as indicators). Alternative 2 is likely to lead to the establishment of a destination for OHV users from a broad geographic area, resulting in substantial increases in OHV use over what is expected under Alternative 1. Alternative 2 could have the greatest negative effect to elk of all the alternatives given the increase in motorized route density and the lack of security areas provided on summer range.

**Cumulative Effects** - The same past, present and foreseeable future actions discussed for Alternative 1 also apply to Alternative 2. However, this alternative closes 61 miles of road and establishes a trail system for OHV users. Although these actions have the potential to mitigate some of the cumulative actions in this area, they are too minor and too spread out to be meaningful to elk security.

### *Alternative 3 – Rocky Mountain Elk*

**Direct/Indirect Effects** - Approximately 96 miles of existing roads would be closed to all motorized traffic with Alternative 3. Many of the roads identified for closure with this alternative were selected in a pattern that would create at least marginal quality security habitat for elk. Three security areas of at least moderate quality would be created with this alternative. One additional area between Tope and McAlister Creeks would provide a small amount of security habitat, although the distance band analysis indicates the majority of this particular area would be low quality. These security areas were strategically designed to provide unobstructed movement between ridges and upper canyon habitats.

The motorized route density in summer range under Alternative 3 is approximately 3.89 miles/square mile. Approximately 75 % of the analysis area would be in a low quality condition for elk (Table 11). Greater than 18% (14% moderate + 4% high + minor amount of optimal) of the area would provide at least moderate quality conditions for elk. Figure 7 is a visual display of the distance band analysis for Alternative 3.

Roughly two and a half months (mid June through the end of August) would receive the greatest amount of disturbance, but the disturbance occurs outside of the elk rutting season, critical wintering season, and about half of the calving season. This season of use has the lowest potential to disrupt important elk behaviors.



Alternative 3 would have the least negative effect to elk (and the species for which they serve as indicators) of all the alternatives.

**Cumulative Effects** - The same past, present and foreseeable future actions discussed for Alternatives 1 and 2 also apply to Alternative 3. This alternative closes 96 miles of road, establishes a trail system for OHV users, and sets a relatively short season of use for the OHV system. These actions would at least partially mitigate some of the cumulative effects (roads, logging, grazing, etc.) by creating areas of low human activity where elk and other wildlife can find security and carry out their social and biological functions with little disruption. The cumulative effects from Alternative 3 represent the least negative and most improved over current conditions of all the Alternatives.

#### *Alternative 4 – Rocky Mountain Elk*

**Direct/Indirect Effects** - Approximately 83 miles of road would be closed to motorized travel. Some of the roads identified for closure with this alternative were selected in a pattern that would create at least marginal quality security habitat for elk (Table 11). Two security areas of at least moderate quality would be created with this alternative, one along the east side of McAlister Creek on Washboard Ridge and the other in the vicinity of Tepee and Mud Creeks. These two security areas are located to allow unobstructed movement of elk and other wildlife between ridges and upper canyon habitats.

The motorized route density in elk summer range under Alternative 4 is approximately 4.23 miles/square mile, 1.73 miles/square mile greater than the maximum standard from the LRMP. Approximately 75% of the analysis area would be in a low quality condition for elk. Greater than 17 % (13% moderate + 4% high + minor amount of optimal) of the area would provide at least moderate quality conditions for elk. Figure 8 is a visual display of the distance band analysis for Alternative 4.

Similar to Alternative 1, eight months (April through the end of November) would receive the greatest amount of disturbance, and overlaps the big game hunting seasons, elk rutting season, and calving season. See Table 10.

**Cumulative Effects** - The same past, present and foreseeable future actions discussed for Alternatives 1, 2, and 3 also apply to Alternative 4. This alternative would close 83 miles of road, establishes a trail system for OHV users, and allows OHV use of the trail system for up to eight months of the year overlapping fall hunting seasons, the elk rut and calving seasons when disturbance is most detrimental.

The creation of two security areas with no motorized access would partially mitigate the cumulative effects of past actions, but to a lesser degree than Alternative 3. The security areas created by this alternative are likely too few and too small to influence elk distribution at the landscape scale. Although this alternative creates two areas that may attract elk from the immediate area, it likely will be negligible in changing the distribution of elk from private to public lands during spring/summer/fall. Motorized route density would exceed LRMP standards by 1.73 miles/square mile. The cumulative effects from Alternative 4 are greater than Alternative 3, potentially less (depending on the growth rate of OHV use in Wallowa County) than Alternative 1 and comparable to Alternatives 2 and 5

in terms of potential negative effects to elk and their habitat.

### **Alternative 5 – Rocky Mountain Elk**

**Direct/Indirect Effects** - Approximately 83 miles of road, similar to Alternative 4 (80 miles), would be closed to motorized travel. Some of the roads identified for closure with this alternative were selected in a pattern that would create at least marginal quality security habitat for elk (Table 11). Two year long security areas of at least moderate quality would be created with this alternative, one along the east side of McAlister Creek on Washboard Ridge and the other in the vicinity of Tepee and Mud Creeks. These two security areas are located to allow unobstructed movement of elk and other wildlife between ridges and upper canyon habitats. Additionally, this alternative would close all motorized access on McAllister Ridge during all fall big game hunting seasons (three days prior to the opening of archery season until 3 days prior to rifle elk season in late October). Other than McAllister Ridge all remaining portions of the trail system and open road system would be available for motorized travel during the fall hunting seasons.

During the summer OHV riding period the motorized route density under Alternative 5 is approximately 4.21 miles/square mile, 1.71 miles/square mile greater than the maximum standard from the LRMP. **Eighty-four percent** of the analysis area would be in a low quality condition for elk. Approximately **fifteen percent** (11% moderate + 4% high + zero optimal) of the area would provide at least moderate quality conditions for elk. Figure 9 is a visual display of the distance band analysis for Alternative 5 during the summer OHV riding season.

During the fall hunting seasons from three days prior to the opening of archery season until 3 days prior to the start of rifle elk season, all roads and trails on McAllister Ridge would be closed to motorized travel. This would provide a relatively large security area for big game when there is the highest potential for disturbance. About **seventy-four percent** of the analysis area would be in a low quality condition for elk. Nearly **twenty-five percent** (14% moderate + 9% high + 2% optimal) of the analysis area would provide at least moderate quality conditions for elk. Figure 10 depicts the same area during the fall hunting seasons when McAllister Ridge is closed to motorized travel.

Six months (May through October) would receive the greatest amount of disturbance, and overlaps the spring and summer OHV riding season, big game hunting seasons, elk rutting season, and calving season. The potential for disturbance from OHV traffic would be nearly the same as with Alternative 4, with the exception of McAllister Ridge during the fall big game hunting seasons. Table 10 displays the relative levels of disturbance by month generated from use of the roads and trails.

On a scale ranging from greatest to least negative effects, Alternative 4 would rank nearly the same as Alternative 2, Alternative 5 next, followed by Alternatives 3 and 1 respectively. Effects from Alternative 5 are very similar to Alternatives 2 and 4, but would provide an area of security habitat during the fall hunting seasons on McAllister Ridge.

**Cumulative Effects** - The same past, present and foreseeable future actions discussed for Alternatives 1, 2, 3, and 4 also apply to Alternative 5. The cumulative effects from

Alternative 5 are very similar to those of Alternatives 2 and 4, with the exception of the seasonal security area provided by closing motorized access on McAllister Ridge during the fall big game hunting seasons. The McAllister Ridge area represents about eleven square miles of ridge top habitat that would provide a high quality security area for elk when stress induced by human activity is the highest. Additionally, the Shamrock TMA and Noregard TMA would provide secure habitat within the Sled Springs WMU during the fall hunting seasons. It is unknown what the effect of the loss of cover within Shamrock and Noregard will be. Elk may continue to focus their use on the Noregard and Shamrock areas during late summer and fall, which for now is open to public walk-in hunting. There is no long-term certainty as to the ownership or access by the public to lands currently owned by Forest Capitol Partners. If access were denied to the general public, a large proportion of the elk population in the Sled Springs WMU would not be available to the public for hunting or viewing. Alternative 5, as well as all of the other action alternatives would likely result in poor distribution of elk across the available habitat.

Elk related recreation in this area primarily includes hunting, wildlife viewing, shed antler hunting, and photography. Currently hunters apply for approximately three years to receive an archery elk tag, and over four years for a rifle elk tag in the Sled Springs WMU. These hunters have an expectation of access to huntable elk populations on National Forests when they eventually get a tag. These elk related recreation opportunities would be substantially reduced by transforming the Sled Springs area from an area with low levels of intermittent OHV use currently, to a destination OHV riding area. The character of the area would likely change with the addition of signs, staging areas, a wash station, noise from motorcycles and OHVs, and the associated garbage and human activity that accompanies OHV riding areas. Those seeking elk for hunting or viewing will likely be displaced to other portions of the National Forest or seek permission for access to private land. These cumulative effects to elk related recreation are similar between all action alternatives.

Reserve for band analysis map, Alternative 2

Reserve for band analysis map, Alternative 3

Reserve for band analysis, Alternative 4

Reserve for band analysis, Alternative 5 – Summer

Reserve for band analysis, Alternative 5 – hunting season



***Existing Conditions – Snags and Downed Wood***

Cursory observations of the analysis area indicate that large diameter ponderosa pine and western larch snags are deficient when compared to historical conditions, particularly on the major ridges (Washboard and Kuhn). This is due to past logging practices that targeted larger diameter trees. Snag levels within the major canyons appear to be representative of what may have occurred there historically. The same assessment could be made for large down logs within the analysis area. Currently the greatest effect to snags and logs is illegal firewood cutting. It is assumed that the best quality snags would be retained if firewood cutters follow the terms of their permits. However, in localized areas it is common to find evidence of illegal firewood cutting and associated resource damage from accessing firewood. An in-depth analysis of snags and logs is not warranted since the nature of the project has only an indirect connection to these habitat components.

The effect to primary cavity excavators from the loss (or severe reduction) of snags is a long-term absence of some woodpeckers from large portions of their geographic range, and their ecological relationships with forest pests and secondary cavity users. Larger diameter snags can require 100 to 250 years to be replaced, and the species that require large snags generally do not have alternatives for nesting substrate. Woodpeckers are also known to contribute to maintaining forest pests (insects) at endemic levels. This function is lost when nesting and roosting habitat is lost or severely reduced over large portions of forested habitat.

***Alternative 1 – Snags and Downed Wood***

**Direct/Indirect Effects** - The problem of illegal firewood cutting would continue to increase from the current level. No roads would be closed and cross country travel would not be restricted, which would continue to facilitate access by firewood cutters to snags and logs important to wildlife. No additional enforcement presence would exist to enforce the current firewood regulations. Alternative 1 would have the greatest potential for negative effects to snags and large down logs.

**Evolving Baseline Condition** - Alternative 1 would contribute to cumulative effects to snag and log habitat by perpetuating the loss of these structures through firewood gathering. This effect is on-going, and overlaps in time and space with effects of past logging, road building, and prescribed burning. These activities have created a deficiency in large, high quality western larch and ponderosa pine snags that provide the best nesting substrate for cavity nesting birds and mammals. This alternative would not remove additional snags for placement of OHV trails, or to mitigate danger trees along an OHV trail system.

***Alternative 2 – Snags and Downed Wood***

**Direct/Indirect Effects** - This alternative would have a slightly less negative effect to snags and logs than Alternative 1 through the designation of OHV trails and elimination of

cross country motorized access. Additionally, 61 miles of road would be closed reducing the potential for both legal and illegal firewood cutting. Closing 61 miles of road also reduces the need to remove hazard trees along these roads, thus retaining more snag habitat. Also, the presence of law enforcement within the OHV trail system would inevitably lead to improved compliance from firewood cutters and serve as a deterrent to illegal firewood cutting. However, funding needs would be much greater for enforcement over a season of use that spans 5 months compared to 2.5 months in Alternative 3. The amount of funding required to patrol for this long of a time would be more difficult to secure than the shorter season of use in Alternative 3. So if funding were to become limited, enforcement may not be available, thereby compromising one of the assumptions agreed to earlier in the planning process.

The result of this alternative would be a relatively minor improvement over existing conditions for snag and log habitat.

**Cumulative Effects** - Since snag habitat varies across a landscape over time it is difficult to assess the true effect of a project in terms of cumulative effects. Logging, road building, prescribed fire, and firewood cutting have contributed to a deficiency of large snags on the ridge systems of this analysis area. All action alternatives would reduce snag habitat through the placement of OHV trails, and through the mitigation of danger trees along the length of the trail and road system. Alternatives with greater OHV system miles would have the potential for greater losses of snag habitat (from trail construction, danger trees, and access by firewood cutters) than those with fewer miles. Likewise, alternatives with more miles of closed roads and larger areas closed to motorized access would experience a less or slower reduction in snag habitat. Action alternatives ranked in order of greatest to least negative effect to snag habitat is as follows: 2, 4, 5 and 3.

#### *Alternative 3 – Snags and Downed Wood*

**Direct/Indirect Effects** - This alternative would have the least negative effect to snags and logs through closing 96 miles of road, designating an OHV trail system and eliminating cross country motorized access. Eliminating cross country motorized access and not having to remove hazard trees along 96 miles of roads would contribute to the retention of snags through a reduction of access for legal and illegal firewood cutting. An increase in enforcement presence would likely lead to improved compliance for firewood cutting. Additionally, the likelihood of securing funding for enforcement over a 2.5 month period is greater than for a 5 month period (Alternative 2) or a 7 month period (Alternative 4).

**Cumulative Effects** – Refer to the analysis for Alternative 2.

#### *Alternatives 4 and 5 – Snags and Downed Wood*

**Direct/Indirect Effects** - This alternative would be comparable to Alternative 2 in regard to snags and logs by closing 80 (Alternative 4) and 83 (Alternative 5) miles of road, designating an OHV trail system and eliminating cross country motorized access. The difference between Alternatives 2, 4 and 5 is likely negligible at the analysis area scale in

regard to snag and log habitat. An increase in enforcement presence would likely lead to improved compliance for firewood cutting. Additionally, the likelihood of securing funding for enforcement over a 7 month period is lower than for a 2.5 month period (Alternative 3).

**Cumulative Effects** – Refer to the analysis for Alternative 2.

### *Existing Conditions – Northern Goshawk*

Northern goshawks are the largest accipiter in North America and are generally considered a forest habitat generalists that persists and reproduces where at least a portion of their home range is in an old growth condition. The goshawk is a management indicator species on the Wallowa-Whitman NF, and is specifically addressed in the Regional Forester's Eastside Forest Plan Amendment #2 (1993).

There are four historical goshawk nests and two active nests within the proposed project area. Three additional historical nests are located on Forest Service land west of Tope Creek, and outside of the project area boundary.

Current direction is to protect a 30 acre nest area around known “active” nests, and manage a 400 acre “post fledgling area” (PFA) around nests. Specific criteria for managing PFA's are outlined in the amended LRMP, but this direction applies only to timber sales. Regardless, it is prudent to recognize the value and sensitive nature of goshawk nests and address effects from potentially harmful activities.

Since the nature of this project would not result in measurable, direct habitat alterations, the most likely potential effect would be from disturbance near nest sites. Goshawks typically construct several (2-6) alternate nests within an area referred to as a nest stand. This species also exhibits high affinity for established nest areas from year to year. Often only one or two of these nests are located during survey efforts in a given year (not always the active one for that year) so several may remain un-known within the nest stand.

The potential effects of this OHV trail project are assessed based on the number of known goshawk nests (current and historic) that have motorized access through the nest stand (30 acres of highest quality habitat around known nests, generally not circular in shape) during the breeding season. The breeding season for goshawks in northeastern Oregon is March 15 through August 31. This is the period when goshawks are most sensitive to disturbance and are most likely to fail or abandon nesting. These are also the dates typically used to restrict potentially disruptive activities associated with timber sales or other permitted activities on the Forest.

### *Alternative 1 – Northern Goshawk*

**Direct/Indirect Effects** - Five of the six goshawk nests within this project area have motorized routes and potential for cross country motorized access through the nest stands. The sixth nest has a grown in, closed road (3021-200 road) passing through the nest stand. Potential disturbance from motorized access exists throughout the nesting season for five of the known nest stands. At least one of these nests is near a main access route (Forest road

3021 near McCubbin Creek) where it may be assumed that the pair of goshawks using it is accustomed to noise from motorized vehicles, thus less sensitive to disturbance. It is not possible to predict whether a specific pair of goshawks would become habituated to new disturbances or be displaced. Limited information regarding this topic indicates that prudence should be used in minimizing disruptions near goshawk nests.

### *Alternatives 2, 3, 4, and 5 – Northern Goshawk*

**Direct/Indirect Effects** - Three of the six goshawk nest within this project area have motorized routes through the nest stands. One of the nests would have an OHV-only trail passing nearby during the last 2.5 months of the nesting season under Alternative 3, and Alternatives 2, 4, and 5 would have potential for disturbance throughout the nesting season. This could lead to nest failure, or force the breeding pair to relocate away from the disturbance. Relocating would not necessarily be negative except suitable nesting habitat is limited, so the pair may be unsuccessful in finding a suitable new location to nest. The other two nest stands contain roads that are open to all classes of wheeled vehicles throughout the snow-free months. At least one of these nests is near a main Forest road (3021, near McCubbin Creek) where the pair of goshawks using it may be accustomed to noise from motorized vehicles, thus less sensitive to disturbance. Even if this particular pair is tolerant of disturbance, it is unknown whether disturbance affects the survival rate (probability of surviving to sexual maturity) of young, or nest productivity (number of young per nesting period).

Disturbance to nesting goshawks from cross country motorized access is expected to be low or non-existent with these Alternatives due to the restriction of OHVs to designated routes. Alternative 3 has a season of use that would close the OHV-only trail system immediately prior to the opening of the general archery season. The opening of archery season is the last Saturday of August, so the end of the season of use can vary up to a week from year to year. There is potential for more disturbance to newly fledged goshawks with Alternatives 2, 4, and 5 than with Alternative 3, but the difference is immeasurable. None of the action alternatives would allow motorized access within the other three nest stands.

The only difference between the action alternatives in regard to goshawks is the potential for disturbance in suitable habitat where surveys have not been done or where goshawks have not been detected. Goshawks are less likely to establish nests or to successfully reproduce in close proximity to OHV trails and open roads (with their associated maintenance and use) than within suitable habitat absent of OHV trails and open roads. Therefore, alternatives with greater miles of motorized routes are likely to have a greater potential for adverse effects than alternatives with fewer miles of motorized routes.

The alternatives in order of greatest to least potential for negative effects to goshawks are: 2, 4, 5, 3 and 1.

### *Existing Conditions – Designated Old Growth*

Management Area 15 is designated in the Forest Plan to “maintain habitat diversity,

preserve aesthetic values, and to provide old-growth habitat for wildlife.” There are at least twenty wildlife species on the Wallowa-Whitman NF that show a preference for mature or old-growth forest habitat. The management indicators for this habitat in the Sled Springs area include pileated woodpecker, northern goshawk, northern three-toed woodpecker, and black-backed woodpecker.

There are 11 MA 15 old-growth areas within the project area between Tope Creek and Highway 3. Four of these areas (one along Tope Creek, two small ones near Sled Creek, and a large one south of Sled Springs Guard Station) are not accessible by roads or OHV trails. The large MA 15 area south of Sled Springs has very limited road access, minor enough to consider it not easily accessible. The other seven MA 15 areas have at least some level of motorized access to or within them.

“Direction” item numbers 10 and 11 for MA 15 on page 4-90 of the LRMP recognize that motorized disturbance is an issue within designated old-growth areas. Item #10 states: “Transportation. Avoid new road construction through old-growth stands”, and item #11 states: “When it is necessary to build a road through an old-growth area, or where a road already exists, the road will be managed to retain the old-growth characteristics of the area including solitude. This will normally require seasonal or year-round road-use restrictions.”

Effects to old-growth habitat from motorized traffic include disturbance from noise and human presence, and easy access for removal of snags and logs that are important structural features of old-growth habitat. It is illegal to remove firewood from designated old growth areas, but easy access facilitates illegal firewood cutting that often has detrimental effects at localized scales.

### *Alternative 1 – Designated Old Growth*

**Direct/Indirect Effects** - Unregulated cross country motorized access facilitates illegal firewood cutting in MA 15 areas. It also allows potential for disturbance within and around MA 15 areas year-round except when snow inhibits access by wheeled vehicles. Alternative 1 would retain motorized access to at least seven of the eleven MA 15 areas. Such access increases the potential for illegal removal of logs and snags by firewood cutters, and introduces disturbance to areas where solitude is a management objective (LRMP page 4-89). This alternative poses the greatest potential for negative effects to MA 15 areas and the wildlife communities that reside there.

**Evolving Baseline Condition** - Past logging and roading have resulted in smaller habitat patches for old-growth associated wildlife species. The old-growth designation management approach represents a minimum required to maintain viable populations of species preferring this type of habitat. Alternative 1 represents an incremental, indirect effect by perpetuating unregulated cross country motorized travel, and use of roads that were intended to be closed following completion of past timber sales.

### *Alternative 2 – Designated Old Growth*

**Direct/Indirect Effects** – This alternative would reduce the potential for illegal firewood cutting within MA 15 areas by restricting cross country motorized access. However, at least six of the eleven MA 15 areas would contain motorized routes, increasing the potential for disturbance and firewood removal. Five MA 15 areas would remain free of motorized routes.

**Cumulative Effects** - Alternatives 2, 3, 4 and 5 would have similar cumulative effects to old growth habitat when considered with past logging, road building, firewood cutting, and prescribed burning. Effects to loss of snag and log habitat are discussed in the snag section of this effects analysis. Alternatives that have fewer miles of new trail and pass through fewer allocated old growth areas would have relatively less of an effect on old growth habitat. Action alternatives ranked in order from greatest to least potential for negative effects to old growth are 3, 5, 4, and 2.

### *Alternative 3 – Designated Old Growth*

**Direct/Indirect Effects** - Alternative 3 would reduce the potential for illegal firewood cutting within MA 15 areas by restricting cross country motorized access and by closing some roads that currently access MA 15 areas. The relatively brief season of use would reduce the potential for disturbance from motorized vehicles for about 9.5 months of the year. Seven of the eleven MA 15 areas would not be accessible by motorized route.

**Cumulative Effects** – Refer to the analysis for Alternative 2.

### *Alternatives 4 and 5 – Designated Old Growth*

**Direct/Indirect Effects** - Alternatives 4 and 5 are similar to Alternative 2 except that six MA 15 areas would not be accessible by motorized routes. Based on the greater amount of miles of OHV trail and open road, these alternatives would have a greater negative effect to old-growth habitat than Alternative 3, but would be less impacting than Alternatives 1 and 2.

**Cumulative Effects** – Refer to the analysis for Alternative 2.

### *Existing Conditions – PETS Wildlife Species*

Several lists were reviewed to indicate PETS wildlife species known or with potential for occurrence within the project area. These include the Oregon Natural Heritage Data Base list of “Rare, Threatened, or Endangered Plants and/or Animals of Oregon on Your Ranger District” in 2000, the Regional Forester's Sensitive species list for Region 6 (FSM 2670.43), lists of Federally Listed Species prepared by the US Fish and Wildlife Service, and Wallowa

Valley Ranger District information regarding the project area. Table 16 contains the PETS species known or suspected to occur within the Wallowa-Whitman NF. An “X” between the common and scientific name indicates those species or their habitats that are known or suspected to occur in or immediately adjacent to the project area. A Biological Evaluation, supporting the determinations shown in this section, is available in the analysis file.

**Table 16 - Proposed Endangered, Threatened or Sensitive terrestrial vertebrate species known or suspected to occur on the Wallowa-Whitman NF**

Status (1)	Common Name	Addressed in the BE	Scientific Name
<b>Amphibians</b>			
S	Northern leopard frog		<i>Rana pipiens</i>
S	Columbia spotted frog		<i>Rana luteiventris</i>
<b>Birds</b>			
T	Northern bald eagle	X	<i>Haliaeetus leucocephalus</i>
S	Horned grebe		<i>Podiceps auritus</i>
S	Bufflehead		<i>Bucephala albeola</i>
S	Ferruginous hawk		<i>Buteo regalis</i>
S	American peregrine falcon		<i>Falco peregrinus anatum</i>
S	Columbian sharp-tailed grouse		<i>Tympanuchus phasianellus columbianus</i>
S	Upland sandpiper		<i>Bartramia longicauda</i>
S	Greater yellowlegs		<i>Tringa melanoleuca</i>
S	Gray flycatcher		<i>Empidonax wrightii</i>
S	Tricolored blackbird		<i>Agelaius tricolor</i>
S	Bobolink		<i>Dolichoronyx oryzivorus</i>
<b>Mammals</b>			
T	Canada lynx	X	<i>Felix lynx canadensis</i>
S	California wolverine	X	<i>Gulo gulo luteus</i>
S	Rocky Mountain bighorn sheep		<i>Ovis canadensis canadensis</i>
S	Pacific fisher		<i>Martes pennanti pacifica</i>
S	Spotted bat		<i>Euderma maculatum</i>
E	Grey wolf	X	<i>Canis lupus</i>

(1) T = Threatened; E = Endangered; S = Region 6 Sensitive

**Northern Bald Eagle** - Occasional bald eagle sightings are reported during winter from a variety of habitats across the Wallowa-Whitman NF, but there are no documented winter roosting areas or nests within the Sled Springs OHV project area. Eagles often perch near carrion or other temporary food sources that may be long distances from typical habitat for this species. There are no large bodies of water or other habitat features within this project area that distinguish it as bald eagle habitat.

**Canada Lynx** - Winter track survey routes were conducted on the Wallowa-Whitman National Forest from 1991 through 1994, and no lynx were detected. It is unknown if lynx currently exist on the Forest. Hair snares were used to survey for lynx on the Wallowa-Whitman National Forest during the summers of 1999 - 2001 according to two protocols one developed by the U.S. Fish and Wildlife Service and another by the U.S. Forest Service. No lynx were detected by these surveys. A lynx habitat model was developed for the Wallowa-Whitman National Forest that classified lynx habitat at the Forest scale. There is no lynx habitat in this project area, nor is any of the project area within a Lynx Analysis Unit.

**Gray Wolf** - The gray wolf is listed as endangered under the Endangered Species Act. Gray wolves are not known to exist in Oregon with the exception of an occasional stray from the experimental population in Idaho. No populations currently occupy habitat within the Oregon portion of the Forest; no denning or rendezvous sites have been identified or are known to exist within the Oregon portion of the Wallowa-Whitman National Forest (USFWS Reference # 1-7-04-SP-0098). Wolves are habitat generalists that will thrive where they have a reliable source of big game prey and where they are tolerated by humans. The Sled Springs OHV Trail project area provides moderate to high quality habitat to support wolves.

**California Wolverine** – California wolverine may occur in the Eagle Cap and Wenaha/Tucannon Wilderness areas and possibly pass through the project area. The size of the project area is small relative to a wolverine’s home range. The area is relatively contiguous to high quality habitat in the Wenaha/Tucannon Wilderness and connected by remote habitat in the Hell’s Canyon NRA to the Eagle Cap Wilderness. Based on the locations of the Sled Springs OHV Trail project area in relation to larger remote wilderness areas, this area likely serves as an important connection for wide ranging carnivores such as wolverine. This area may be important for wolverines to move between distant patches of high quality habitat if the species re-establishes a population in Oregon at some point in the future. The steep canyon habitat in Sled, McAlister, and Tope Creeks provide good options for travel corridors for wolverine. Wolverines are very mobile and uninhibited by steep terrain.

*Alternatives 1, 2, 3, 4, and 5 – PETS Wildlife Species*

**Northern Bald Eagle** - Potential habitat for bald eagles does not exist within or immediately adjacent to this project area. Also, the nature of this project would not affect the large tree component of the area which is the most important structures for bald eagle roosting and nesting. Therefore this project would have “no effect” on bald eagles or their habitat. The unsuitable conditions for bald eagles in this area are due to inherent habitat capability. Since this project does not represent an incremental effect, it would not contribute to cumulative effects of past, present, and foreseeable future activities.

**Canada Lynx** - This project would have “no effect” on lynx or lynx habitat. The location and distance of this project from suitable lynx habitat pose no risk to lynx or their habitat. Since this project would not have an effect on lynx habitat, it would also not contribute to cumulative effects to lynx or their habitat.

**Gray Wolf** - The gray wolf is listed as endangered under the Endangered Species Act. Gray wolves are not known to exist in Oregon with the exception of an occasional stray from the experimental population in Idaho. No populations currently occupy habitat within the Oregon portion of the Forest; no denning or rendezvous sites have been identified or are known to exist within the Oregon portion of the Wallowa-Whitman National Forest (USFWS Reference # 1-7-04-SP-0098). Within the past year a reproductive pair of wolves with at least two pups has been documented several miles to the west of the Sled Springs area (Morgan, pers com 2008). Considering the wide ranging nature of wolves it is conceivable that wolves at least pass through the Sled Springs area.



Wolves are habitat generalists that will thrive where they have a reliable source of big game prey and where they are tolerated by humans. The Sled Springs OHV Trail project area provides habitat capable of supporting wolves.

None of the alternatives would have a direct effect on wolves or their habitat since the species is thought to be absent from this area. Implementation of Alternatives 2, 3, 4 or 5 could have detrimental indirect effects to wolves in the future if a population takes up residence in the area. High levels of motorized access that pushes big game (namely elk) onto private lands would have a similar displacing effect on wolves. Alternative 1 that perpetuates low levels of un-regulated cross country motorized travel, and does not establish a designated route system or season of use would have the least potential for precluding wolves from colonizing this area.

All action Alternatives represents a further departure from LRMP standards for road densities, and a negative trend for potential habitat in the future for wolves and their prey. The action alternatives ranked in order from greatest negative effect to least are: 2, 4, 5, and 3.

Since wolves are not known to currently exist in this project area, implementation of any of the alternatives of this project would have “no effect” to the species at this time. In regard to recovery of this species in Oregon, any of the action alternatives could preclude wolves from establishing or sustaining a breeding population in this area. This could occur as a result of illegal shooting of wolves, displacement of prey species, and direct disturbance to wolves attempting to establish rendezvous or den sites.

**California Wolverine** – California wolverine may occur in the Eagle Cap and Wenaha/Tucannon Wilderness areas and possibly pass through the project area. The size of the project area is small relative to a wolverine’s home range. The area is relatively contiguous to high quality habitat in the Wenaha/Tucannon Wilderness and connected by remote habitat in the Hell’s Canyon NRA to the Eagle Cap Wilderness. Based on the locations of the Sled Springs OHV Trail project area in relation to larger remote wilderness areas, this area could serve as an important connection for wide ranging carnivores such as wolverine. This area may be important for wolverines to move between distant patches of high quality habitat if the species re-establishes a population in Oregon at some point in the future. The steep canyon habitat in Sled, McAlister, and Tope Creeks provide good options for travel corridors for wolverine. Wolverines are very mobile and uninhibited by steep terrain.

Alternative 1 would perpetuate the current habitat conditions that make this area unlikely to support wolverines. Selection of this “no action” alternative would not lead to the Federal listing of wolverines.

Alternatives 2, 3, 4 or 5 may impact the future potential of this area to support wolverines or to serve as a connective travel corridor between distant wilderness areas. When considered cumulatively with other past, present and foreseeable future actions, all four action alternatives would perpetuate a downward trend in habitat potential for wolverine. However, none of these alternatives are likely to lead to federal listing of wolverines.



## Aquatic Resources

The Sled Springs OHV Trail Project is located north of Enterprise, Oregon within the Grande Ronde River/ Mud Creek Watershed. The following streams flow through the proposed OHV Trail Project: Burnt, Buck, Sled, Evans, Mud, McCubbin, Teepee, McAllister, Alder, and Tope Creeks. The Grande Ronde River/ Mud Creek Watershed flows into the Grande Ronde River, which flows into the Snake River. Refer to Figure 1 for locations of the named streams within the analysis area. The following table lists the subwatersheds intersected by the proposed project, their size, acres within the proposed project area, and acres within National Forest System Lands. A subwatershed map is available in the Analysis File.

**Table 17 – Sled Springs OHV Trail Project Subwatershed Information**

Grande Ronde River/ Mud Creek Subwatersheds	Old USGS HUC 17060106-24	New HUC 1706010602	Acres in Project Area	Total Acres Within NFS boundary
Middle Mud Creek*	E	04	3,105	12,186
Tope Creek	F	05	18,098	18,098
Upper Mud Creek	I	03	17,266	17,333
Buck Creek	J	06	15,309	15,389
Upper Courtney Creek	L	08	12,078	21,041

\* Under the new HUC designations Middle Mud Cr (04) contains McAllister Cr (USGS HUC -24H)

The Grande Ronde River/ Mud Creek Watershed is 148,768 acres or 232 square miles in size, of which approximately 37% is in National Forest System Lands.

Elevation within the Grande Ronde River/ Mud Creek Watershed ranges from a low of 1,604 feet at the Courtney Creek confluence with the Grande Ronde River, to a high of 4,938 feet. Elevation within the proposed project area ranges between 4,300 and 4,880 feet.

Changes in elevation affect the hydrology within the watershed. Air temperatures vary with elevation. Low elevation areas have relatively mild winters (20-40°F) and hot summers (>85°F). Cooler summers and more severe winters occur at the higher elevations. Average annual precipitation also varies with elevation. Lower elevations receive 12-17 inches of precipitation while higher elevations receive 30-45 inches. Approximately 90 percent of precipitation falls from September through June. At the lower elevations precipitation falls as rain, while higher elevations receive both snow and rain.

In general, the subwatersheds within the Grande Ronde River/ Mud Creek Watershed can be divided into those with and those without a dominance of conifer vegetation. Runoff patterns within ecosystems dominated by open grassland prairie, peak relatively early in the year while conifer dominated slopes deliver water later during May and into June.

Few systematic hydrologic measurements have been recorded in this watershed, as the lower 60% of the watershed is on private land. However, a USGS gauging station was in operation at Chico (in the adjacent Upper Joseph Creek Watershed two miles downstream of Crow Creek confluence) from July 1931 to September 1933. From this limited data, a snowmelt and spring rain hydrograph was developed that should be similar to this watershed. Peak flows generally occur in March, April, or May with low flows from June

through February.

Stream surveys were completed on the National Forest portion of all perennial streams in the proposed project area between 1992 and 1994. These streams, in their upper reach (within the proposed project area) are characterized by low to moderate gradient (<4%), a sand and gravel substrate, stable banks (all streams except Buck and Burnt Creeks were >90% stable), and riparian vegetation dominated by grasses and scattered conifers. Due primarily to past management practices such as logging, railroad and road building and livestock grazing, the shrub component of riparian vegetation is lacking compared to lower in the systems where deciduous shrubs dominate the riparian areas. Nearly all of these streams have sections of channel that are dry by late July. The dry channel sections are interspersed with scattered pools of standing water, which tend to have high densities of small steelhead/rainbow trout in them.

The ridges between the perennial streams in this watershed are heavily roaded. Most roads are above approximately 4300 feet in elevation. Below this elevation the streams become higher gradient as they drop into confined steep canyons with a trellis drainage pattern. Even though much of the National Forest portion of this watershed is located in steep and inaccessible canyons, the many miles of roads constructed on the plateau top between drainages have resulted in open road densities exceeding 2.5 miles per square mile in Middle Mud (2.53), Tope (3.37), and Upper Mud (3.46) Creek subwatersheds.

As the main streams drop below approximately 4200 feet in elevation they form steep-sided canyons. Due to the steep terrain and trellis drainage pattern in these canyons they are "flashy" systems, where streamflows can rise and drop quickly. A late spring rain can cause streamflow change within 24 hours. These changes vary by the size of storm as well as by subwatershed because of their respective differences in soil moisture, soil thickness, topography, forest canopy, condition of stream/floodplain, and past management.

The *Lower Grande Ronde Subbasin Multi-Species Biological Assessment* (USDA 2001) provides more information discussing hydrology and geology and soils of the Grande Ronde River/ Mud Creek Watershed.

### *Existing Conditions – Soil Productivity*

The Grande Ronde River/ Mud Creek Watershed originates in a gently sloping dissected plateau formed by Columbia River basalts. This plateau drains into Joseph Creek Canyon on the east and into Wildcat, Mud, and Courtney Creeks on the west. The basalt is generally fine grained, hard, highly fractured, and highly resistant to weathering (*USDA 2001*). Locally there are interbeds of ash, old soil profiles, and sedimentary rocks.

Soil type is influenced by area geology and landform, surface deposits of windblown loess and volcanic ash, and colluvial materials. Primary landforms include plateau tops, mountain slopes, and dissected canyons. Soils are variable with surface textures ranging from very fine to coarse, with coarse rock fragment ranging from less than five to greater than 85 percent. Soils are generally deeper on north and east slopes (capable of supporting conifer stands) and more shallow on south and west facing slopes (capable of supporting mainly grasslands).

Principal soil types are "residual soils," (soils formed from local bedrock in place) and "ash" or "mixed" soils, derived from volcanic ash, or a mixture of volcanic ash, fine-textured windblown loess and colluvial surface deposits over bedrock or pre-existing residual soils. Soil erosion depends on rock type from which soils are derived, soil properties (such as soil texture and rock content), vegetative cover, and slope. Potential soil erosion hazard (loss of soil by surface run-off) is rated from slight to high.

Residual soils are shallow to moderately deep, well drained, medium-textured loams and silt loams, with variable rock content ranging from zero to greater than 35 percent. Soil erosion hazard for residual soils is rated slight for slopes less than 30 percent and moderate for slopes greater than 30 percent.

Volcanic ash and mixed soils tend to be shallow to moderately deep, well drained, fine to medium textured silt loams and loams, with rock content from zero to greater than 35 percent. Occurrence and depth tends to be greater on north and east slopes, gently sloping ridge tops, alluvial fans, and stream terraces. Depth tends to be shallower or absent on south and west slopes, and steep-sloped canyons. Soils with volcanic ash are highly productive, but have higher soil erosion hazard ratings than residual soils because of their low bulk density and high detachability. Surface soil erosion hazard for ash or mixed soils is rated slight to moderate for slopes less than 30 percent and moderate to severe for slopes greater than 30 percent.

Tributary streams to Wildcat, Mud, and Courtney Creeks form deep alluvial fans. Alluvial fans generally consist of stratified, deep, well-drained, very stony soils. Alluvial terraces have been formed primarily from alluvial deposition due to valley constraints. These terraces are gently sloping with very deep, well drained, fine to very coarse textured loam and fine sandy loam soils. Potential soil erosion hazard rating for alluvial fan and terrace soils is slight to high depending on slope, vegetative cover, and carbonate concentration.

The hazard of mass movement (movement of soil which occurs below the surface) is rated slight for slopes less than 30 percent and moderate for slopes greater than 30 percent.

Natural disturbances that have occurred in the watershed include localized flash flooding in tributaries, windstorms, insect epidemics, and wildfires. In February, 1996 and again in January, 1997 flash flooding resulting from rain-on-snow events and rain falling on saturated soils caused mass movement of soil and stream bedload materials. The 1997 event was of such a magnitude (100+ year hydrologic event) that seral development of isolated riparian sections was set back.

Human-caused disturbances within the watershed include logging, road and railroad building, livestock grazing, and recreational activities. The road system in the Grande Ronde River/ Mud Creek Watershed administered by the Forest Service provides access for various uses, including timber harvest, recreation, livestock management, collection of forest products such as firewood and mushrooms, and for administration of these uses by the Forest Service.

Historic management practices, especially railroad and road building, railroad logging, tractor and skyline logging, and livestock grazing, have resulted in negative effects to soils

and soil productivity in the more gentle terrain of the plateau top. In affected areas, soil displacement and compaction by mechanized equipment and hoof action leads to the dislodging of plants, loss of soil productivity, and changes in soil structure. Dislodging and crushing/trampling of vegetation damages not only the above ground biomass but may also damage or reduce the amount of below ground biomass necessary to bind soil. Compaction changes the soil structure, decreasing available refugia for soil organisms and reducing the rate of water/nutrient infiltration and percolation. The most affected sites include: roadbeds; old skid trails within logging units; and livestock trails in the uplands and along stream bottoms, springs, salting areas, and developed water sites.

#### ***Alternative 1 – Soil Productivity***

Under this alternative, current compaction and displacement of soils would continue. OHV use off-road and on closed roads would continue without restrictions.

Current OHV use levels would likely have the indirect effect of allowing some sites (certain closed roads, railroad beds, and old skid trails that are not currently used as trails) where soils are presently compacted to continue recovering. Areas of old soil damage, without the continued disturbance of OHVs, would likely improve over time through natural processes including freeze/thaw cycles, wet/dry cycles and vegetative growth, which would increase infiltration rates and decrease surface erosion. Ground cover would increase, soil bulk densities would begin to decrease, and biomass production would increase, although it may take 20-30 years before the recovery process is completed. This natural recovery process occurs most readily in the surface 6 inches of soil. The amount of natural recovery and the total amount of time for soil damage to recover to acceptable levels depends on the extent, depth, and degree of soil damage.

Throughout the proposed project area, effects of OHV use would be minor when compared to the effects of historic road building, logging, and overgrazing. However, soil compaction and erosion would continue in the analysis area where roads and unapproved trails are currently used. If current OHV use levels increase without controls over where these vehicles can be driven, higher levels of soil displacement, compaction, erosion and sediment delivery to streams can be expected commensurate with the location, timing and amount of use.

Refer to the Cumulative Watershed Effects section for a discussion of the evolving baseline condition.

#### ***Alternative 2 – Soil Productivity***

Controlling where OHVs are used, and keeping that use on designated routes that have been created responsibly and are monitored and maintained would cause the current soil compaction in closed roads that are not part of the trail system to recover, by improving the quantity and quality of effective ground cover. Trails and roads that are designated for OHV use would remain in a compacted state. New areas would be disturbed associated with the 18 miles of new trail construction. Since constructed OHV trails function as roads

hydrologically, there would be a net increase in effective total road density (including constructed OHV trails) with the implementation of all action alternatives. However, there would be a large net decrease in miles of road (including constructed OHV trail) open to motorized use from current conditions, especially during the off season when trails are closed. This level of disturbed soil would be well within Forest Plan Standards and Guidelines for less than 20 percent detrimental soil conditions for an activity area. Refer to Table 3 for a comparison of road and trail miles between all Alternatives.

OHVs by their nature cause detrimental soil conditions through compaction and displacement. This is primarily a problem with off-road use, especially in RHCAs (Riparian Habitat Conservation Areas) where soil and vegetation play a critical role in stream health. The degree of soil compaction and displacement caused by OHVs is currently limited and varies across the analysis area. It is generally less severe in areas with heavy timber and most severe in areas that provide easy access: low gradient open areas and meadows.

This alternative would allow trail use from June 15, when trails are dry enough to ride without excessive soil damage, until there is 12” of snow at the staging area, usually by early February.

Root biomass can also be affected by vegetation damage or removal. Less energy is available for root maintenance while the plant is focusing its energy on regrowth of leaves. Loss of root biomass reduces soil stability leading to increased soil erosion.

Refer to the Cumulative Watershed Effects section in this chapter for cumulative effects.

This alternative is consistent with the Wallowa-Whitman Forest Plan Standards and Guidelines for soil resources and Forest Service Manual Direction, Region 6 Supplement 2500-98-1, effective 4/1998. Any increase in detrimental soil conditions is expected to be limited in aerial extent (found in localized areas only) and size (generally in small, isolated areas).

### ***Alternative 3– Soil Productivity***

The effects to soil productivity from actions proposed under Alternative 3 could potentially be the same as Alternative 2, if there was a dry fall and the ground froze before any precipitation fell. More likely is that this Alternative would improve watershed conditions, and hence soil productivity, at a faster rate than all Alternatives because 1) 35 more miles of road would be closed to all motorized traffic; 2) there would be fewer roads converted to trails; 3) fewer miles of new OHV trails (17 miles) would be constructed, and 4) there would be a short season of trail use (approximately 3 months) during the driest time of year. This alternative would improve conditions faster than any other Alternative.

Refer to the Cumulative Watershed Effects section in this chapter for cumulative effects.

#### ***Alternative 4 – Soil Productivity***

The effects to soil productivity from actions proposed under Alternative 4 would likely be better than Alternatives 1 and 2 but less than Alternative 3 and approximately the same as Alternative 5. A total of 80 miles of road would be closed to all motorized vehicles under Alternative 4, with 70 miles closed under Alternative 2, 91 miles closed under Alternative 3, and 83 miles closed under Alternative 5. Alternative 4 would construct 20 miles of new OHV trails, creating newly disturbed soils. However, this level of disturbed soil, along with already disturbed areas associated with open roads would be well within Forest Plan Standards and Guidelines for less than 20 percent detrimental soil conditions for an activity area.

Under Alternative 4 the opening of the riding season would vary from year to year, determined by soil moisture and trail conditions. Prior to June 15, Forest Service recreation and hydrology representatives would monitor “key” areas – those which would be most representative of the potential for rutting, soil displacement, and erosion – to determine when the trail system could be opened to riding. The trail “key” areas would be monitored throughout the riding season, and if trail conditions become too wet the trail system would be closed until conditions become acceptable. The season closure of the trail system would use the same monitoring procedure. The ability to open and close the trail system depending on trail conditions could further reduce the likelihood for soil displacement and erosion. Because of this, Alternative 4 would likely improve watershed conditions at a faster rate than Alternatives 1 and 2, but less quickly than Alternative 3, and at about the same rate as Alternative 5.

Refer to the Cumulative Watershed Effects section in this chapter for cumulative effects.

#### ***Alternative 5 – Soil Productivity***

The effects to soil productivity from actions proposed under Alternative 5 would likely be better than Alternatives 1 and 2, less than Alternative 3 and about the same as Alternative 4. There would be 83 miles of road closed to all motorized vehicles under this Alternative, with 80 miles closed under Alternative 4, 70 miles closed under Alternative 2, and 91 miles closed under Alternative 3. Alternative 5 constructs the most miles of new OHV trails (25 miles) when compared to the other alternatives. In addition, Alternative 5 would decommission 4 miles of old road (the most out of all alternatives) and close access in late October of each year, which would create a shorter access time than Alternative 4, potentially the same or shorter access time than Alternative 2, and a longer access time than Alternative 3.

Under Alternative 5 the opening of the riding season would vary from year to year, determined by soil moisture and trail conditions. After April 1 and prior to June 15, Forest Service recreation and hydrology representatives would monitor “key” areas – those which would be most representative of the potential for rutting, soil displacement, and erosion – to determine when the trail system could be opened to riding. The trail “key” areas would be monitored throughout the riding season, and if trail conditions become too wet the trail



system would be closed until conditions become acceptable. The season closure of the trail system would be in late October. The ability to open and close the trail system depending on trail conditions could further reduce the likelihood for soil displacement and erosion. Alternative 5 would likely improve watershed conditions at a faster rate than Alternatives 1 and 2, would improve them at about the same rate as Alternative 4, and would not improve them as quickly as Alternative 3.

Refer to the Cumulative Watershed Effects section in this chapter for cumulative effects.

### ***Existing Conditions – Listed Fish Species***

The analysis area includes portions of six subwatersheds all containing Snake River steelhead, which were listed in 1997 as threatened by National Marine Fisheries Service (NMFS) and are a Management Indicator Species. Summer steelhead spawn and rear in the main stems of Burnt, Buck, Sled, Evans, Mud, McCubbin, Teepee, McAllister, and Tope Creeks. Refer to Figure 1 for the location of these streams within the proposed project area. Spawning and rearing habitat includes rearing habitat that for nearly all streams is not year-round due to lack of sufficient flow and water quality.

Historically, distributions of steelhead may have occurred further upstream in the channels that currently contain habitat, but due to the past effects of intensive management such as logging, railroad and road construction, and grazing, less functional habitat is available. Current and historic habitat information provided by ODFW, and Forest Service records were used to determine the extent of habitat critical to the needs of steelhead.

A more extensive discussion of condition and trend of populations, life history characteristics, and production capabilities can be found in the *Lower Grande Ronde Subbasin Multi-Species Biological Assessment* (USDA 2001).

Redband/rainbow trout are currently listed on the USDA Forest Service Region 6, Regional Foresters Sensitive Species List, and listed as vulnerable under the ODFW Sensitive Species list. Redband/rainbow trout and steelhead exist in the same habitats throughout the watershed. At this time, it is impossible to distinguish the difference between these fish at young life stages. They often interbreed and are believed to be the same species. Habitat requirements of redband/rainbow trout are similar to steelhead.

### ***Alternative 1 – Listed Fish Species***

This alternative is the no-OHV trail system alternative. Although this alternative removes the action of constructing OHV trails on Forest land, the use of OHVs would continue to be permitted off roads and on all closed roads. If OHV use increases at its' current rate, it is probable that adverse effects to listed Snake River steelhead would occur. None of the subwatershed matrix indicator ratings are expected to change as a result of implementing this alternative in the short term (0-5 years). All of the subwatershed matrix indicator ratings, including road density would be maintained. If OHV use is controlled in some manner, especially in RHCAs, subwatersheds would begin to move toward Functioning

Appropriately in the long term (10-20 years).

### *Alternative 2 – Listed Fish Species*

The proposed actions ‘may affect, and are likely to adversely affect’ listed Snake River steelhead. This is supported by the determination that the proposed actions would maintain or improve the environmental baseline of Matrix indicators for streams within the analysis area and would decrease the risk of aggregate and cumulative effects on population and/or habitat. A risk of direct effects from OHVs driving over steelhead redds has been identified, but that risk would be minimized through providing trails and bridges at all intermittent and perennial stream crossings. No off-road or off-trail OHV operation would be permitted. Monitoring will be done to assess compliance, and enforcement funds would be provided by the State of Oregon.

Refer to Table 3 for a comparison of road closures, OHV trail designation, and OHV trail construction by alternative. A total of 26 miles of currently closed roads and 45 miles of currently open roads would be converted to OHV-only trails, and 34 miles of existing open roads would be closed to all motor vehicles. Additional protection measures would be followed to further protect steelhead habitat during trail construction and use (refer to Mitigation Measures in Chapter 2). Refer to the Biological Assessment in the analysis file for further information on direct and indirect, aggregate, and cumulative effects.

Under Alternative 2, habitat conditions for listed Snake River steelhead would improve faster than Alternative 1 over time, mostly due to closing of 61 miles of road to all motorized vehicles, and the elimination of OHV off-road and closed road use. This alternative proposes three crossings of perennial streams and 2 crossings of intermittent streams. Crossings with bridges would be constructed within the upper reach of Buck, McAllister, and Mud Creeks. The construction of bridges at all intermittent and perennial crossings would prevent OHVs from entering streams and having a direct effect on Snake River steelhead. Bridges would be constructed of steel or non-treated wood, and would not impinge on the two-year floodplain. Bridges and any trails within RHCAs would be designed to prevent sediment from entering any stream. Trails within RHCAs would be rocked and have erosion control devices (dips and waterbars) installed. They would not parallel the stream, but would approach stream crossings perpendicular to the stream as much as possible.

### *Alternative 3 – Listed Fish Species*

Actions under Alternative 3 may hasten the rate of improvement over that of Alternative 2 because 1.2 fewer miles of new OHV trail would be constructed, and 35 more miles of road would be closed to all motorized vehicles. Alternative 3 would result in the greatest number of miles of road closed to motorized vehicles, and the fewest miles of newly constructed OHV trail. Refer to Table 3 for a comparison of miles of open and closed roads and proposed OHV trails by alternative. One intermittent stream crossing and two perennial stream crossings are proposed under Alternative 3, over McAllister and Mud Creeks. For the above reasons, and because this Alternative allows a shorter length trail

riding season (approximately 2 months), Alternative 3 would result in the least impact to fish and other aquatic species, among the alternatives.

#### ***Alternative 4– Listed Fish Species***

Alternative 4 proposes 20 miles of newly constructed OHV trail, two intermittent stream crossings and four perennial stream crossings. An additional bridge crossing on Burnt Creek is proposed in this alternative. This alternative falls between Alternatives 2 and 3 in all other categories of miles of road and trail construction/closure (refer to Table 3). The trail riding season would differ from all other action alternatives. Under Alternative 4, the opening of the riding season would vary from year to year, determined by soil moisture and trail conditions. Prior to June 15 Forest Service recreation and hydrology representatives would monitor “key” areas – those which would be most representative of the potential for rutting, soil displacement, and erosion – to determine when the trail system could be opened to riding. The trail “key” areas would be monitored throughout the riding season, and if trail conditions become too wet, the trail system would be closed until conditions become acceptable. The seasonal closure of the trail system would use the same monitoring procedure. The ability to open and close the trail system depending on trail conditions could further reduce the likelihood for soil displacement and erosion. With these things considered, Alternative 4 would have slightly less potential impact on Snake River steelhead than Alternative 2 and slightly more potential impact than Alternative 3.

#### ***Alternative 5– Listed Fish Species***

Short-term effects to SRB steelhead and redband trout from Alternative 5 are similar to the short-term effects from Alternatives 2 and 4 because of similar bridge construction activities. Under Alternative 5 bridges would be constructed over the same fish bearing streams as under Alternative 4, and over one more stream than Alternative 2. Therefore, Alternative 5 may affect, and is likely to adversely affect, SRB steelhead as a result of short-term effects from the construction of four bridges at trail crossings on Buck, McAllister, Burnt and Mud creeks. These adverse effects will result from short pulses of turbidity, crossing of heavy equipment and operation of heavy equipment adjacent to streams. Activities proposed under Alternative 5 may also impact redband trout and their habitat due to increases in fine sediment resulting from the construction of bridges at OHV crossings.

In the mid to long term (>5 years) Alternative 5 would improve watershed and aquatic conditions at a faster rate compared to Alternatives 2 due to the 10 fewer miles of motorized trail and 13 more miles of currently open road closed to all motorized vehicles (refer to Table 3). It would potentially improve watershed and aquatic conditions at a slightly faster rate than Alternative 4 due to 3.8 more miles of road decommissioning and a slightly shorter season of use. It would likely not improve watershed and aquatic conditions at a rate as fast as Alternative 3, because it contains 12 more miles of motorized trail (some of which is new trail construction) and 8 fewer miles of closures of currently open road. Like the other action alternatives, OHV travel would be restricted to designated routes only and the 38,283 acre Sled Springs OHV area would be closed to cross country

travel by OHVs. Unlike the other action alternatives, Alternative 5 would rehabilitate about 25 miles of user created trails over the next 5 years. Alternative 5 would result in 4.1 miles of road being decommissioned, 2.8 of which are located in RHCAs, compared to 0.3 miles under Alternatives 2, 3, and 4. This may result in higher erosion rates compared to the other alternatives in the short-term but will likely result in improved watershed conditions in the long-term.

Under Alternative 5, FSV/OHV trail segments would be open year round. OHV-only segments would be open from April 1 to three days prior to the opening of rifle elks season (late October) except for the McAllister Ridge area trails and roads. Resource triggers apply between these dates (see Chapter 2) to minimize damage and resulting erosion from trails during wet periods. Trails and roads in the McAllister Ridge area would close 3 days prior to bow season (late August).

Activities proposed under Alternative 5 may affect, will likely adversely affect SRB steelhead and their habitat due to increases in fine sediment resulting from the construction of bridges at OHV crossings. Activities proposed under Alternative 5 may impact redband trout and their habitat due to increases in fine sediment resulting from the construction of bridges at OHV crossings.

### *Existing Conditions – Aquatic Habitat*

Habitat is the most basic requirement for achieving or maintaining healthy fish populations. Viable, stable populations require abundant, high quality, and diverse habitats that satisfy requirements for all life stages. The most significant effects on fisheries from land management activities are indirect and cumulative. Proper riparian function would meet most habitat objectives for fish. Healthy riparian areas require preserving water quality, diverse and complex vegetative communities, and stream channel morphology. In most stream headwater reaches within the analysis area, degradation of the RHCAs from historical management activities has decreased habitat diversity and complexity. Historic road and railroad building, logging, and livestock grazing have negatively influenced these elements in localized sections of most streams in the analysis area where riparian areas are low gradient and easy to access. These are typically Rosgen C type channel sections with wider floodplains and fine-grained stream banks.

When analyzing management effects to Snake River steelhead and their habitat, the Forest Service uses the Matrix of Pathways and Indicators as described in *A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale* (NMFS 1996). The rating criteria for each Matrix parameter is contained in the analysis file.

The habitat indicators have been evaluated and rated using available data provided by stream surveys, Properly Functioning Condition (PFC) (BLM 1993) surveys, water quality monitoring, habitat improvement monitoring, personal visits by local biologists, and professional judgment. Habitat indicators are rated “Functioning Appropriately”, “Functioning at Risk”, or “Functioning at Unacceptable Risk”. Table 18 displays the rating for each indicator for the subwatersheds in the proposed project area. A more intensive discussion of habitat matrix indicators can be found in the *Upper Joseph Creek Watershed*

*Assessment 2005, Lower Joseph Creek Watershed Assessment 2001, and Lower Grande Ronde Subbasin Multi-Species Biological Assessment 2001.*

**Table 18 - Current Multi-species Matrix Ratings for Project Area Subwatersheds (refer to old USGS HUCs 24e, 24f, 24h, 24i, 24j, and 24l)**

Diagnostic or Pathway	Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
<b>Water Quality:</b>			
Temperature	24 h	24 f, i	24 e, j, l
Sediment/Substrate	24 f, h, i	24 l	24 e, j
Chemical Contamin.	All		
<b>Habitat Elements:</b>			
Physical Barriers	All		
Large Woody Material	24 e, f, i, j, l	24 h	
Pool Quality/ Frequency	24 e, h	24 l	24 f, i, j,
Off-Channel Habitat	24 e,h, i, f, l	24 j	
Refugia	24 e,f, h, i, l	24 j	
<b>Channel Condition and Dynamics:</b>			
Width/Depth Ratio	24 e, f, h, i, j, l		
Streambank Condition	24 e,f, h, i, l	24 j	
Floodplain Connectivity	24 e,f, h, i, l	24 j	
Peak/Base Flows	24 e, f, h, i, j, l		
<b>Watershed Conditions:</b>			
Drainage Network	24 e,f, h, i, l	24 j	
Road Density	24 e,h, l	24 j	24 f, i
Disturbance History	24 e, h, l	24 f, i, j	
Riparian Habitat Conservation Areas	24 e, h, l	24 f, i, j	
Disturbance Regime	24 l	All of 24 except l	

Matrix Indicator ratings were obtained from information in the Lower Grande Ronde Multi-Species Biological Assessment 2001, Upper Joseph Creek Watershed Assessment (2005), Lower Joseph Creek Watershed Assessment (2001), and Joseph Creek Section 7 Watershed Assessments of Ongoing and Proposed Activities (1998)

Indicators that would have no risk of being affected by the action alternatives of the OHV Trail Proposal include Temperature, Physical Barriers, Large Woody Material, Pools, Off-Channel Habitat, Refugia, Width-to-Depth Ratio, and Floodplain Connectivity. The following indicators would have a low risk of being affected by the action alternatives: Sediment/Substrate, Chemical Contamination, Bank Stability, Peak and Base Flows, Drainage Network, Disturbance History, Road Density (total road density) and Riparian Reserves. Open road density would be positively affected under all action alternatives for all subwatersheds due to the closing of roads to motorized vehicles. However, under all action alternatives, total Road Density would be increased with the construction of new trails, since OHV trails function hydrologically like roads. No habitat indicator would have a moderate or high risk of being adversely affected by this proposal.

The following three Matrix pathways (and indicators) can be directly affected by OHV trail construction, use, and maintenance and are the most sensitive to OHV impacts: Water Quality (Sediment/Substrate and Chemical Contamination), Channel Condition and Dynamics (Bank Stability and Peak/Base Flows), and Watershed Conditions (Drainage Network, Road Density, Disturbance History, and Riparian Reserves). These indicators are discussed in detail below.

**Water Quality** – There are two Water Quality habitat indicators that could be affected by OHV trail construction, use, and maintenance: Sediment and Chemical Contamination. If protection measures are followed during construction, and monitoring and maintenance are done, it is highly unlikely that the OHV trail system would result in degradation of water quality in the Grande Ronde River/ Mud Creek Watershed.

Sediment yield appears to be high in the upper reaches of the Middle Courtney (rated Functioning at Risk for sediment) and Buck (rated Functioning at Unacceptable Risk for sediment) Creeks. These ratings are due to the cumulative effect of past activities. Review of stream surveys and on-ground analysis of channels indicate that the majority of fine sediment comes from inchannel sources: the channel banks and bed. Poor bank stability and reduced riparian vegetation as a result of past timber harvest, livestock and elk grazing/browsing, and increased peak flows which have modified stream channels. Small localized sediment problems exist throughout the proposed project area, primarily where livestock and wildlife access streams for water. Generally bank stability in the Grande Ronde River/ Mud Creek Watershed is high, with bank stability estimates (from stream survey data) of >90% except for two streams. Buck and Burnt Creeks, were estimated to have 77% and 89% stable banks respectively in the upper reaches of these streams.

It is possible that a petroleum spill could occur in the riparian area of a stream, causing chemical contamination of its' water. However, trails would be located within RHCA's of perennial and intermittent streams for an estimated 0.5 miles of the 17.3-19.7 miles of total new trail construction (depending on Alternative). All perennial and intermittent stream crossings would use bridges. With the small scale of RHCA use, lack of fords, and proposed protection measures, maintenance, and monitoring, the likelihood of a chemical spill into a stream is discountable.

Based on stream survey data and on the ground observations, it appears that the streams within the project area are on an improving trend. The action alternatives in this proposed project are not expected to negatively affect water quality in the subwatersheds within the project.

**Channel Condition and Dynamics** – Peak and Base Flows and Drainage Network are the two Channel condition indicators that could be effected by the OHV trail system and its' use.

There is no current hydrograph data available on the Grande Ronde River/ Mud Creek Watershed. The subwatersheds within the proposed project area are all rated Functioning Appropriately for Peak and Base Flows.

None of the streams in the proposed project area, could be termed as "flashy". This is due

to the plateau-top location (near the headwaters with meadow buffers) and gentle terrain within the area. Water levels do not quickly rise and fall in response to rainstorms or snowmelt. Most streams are at least partially dry by early July. For all streams in the analysis area, flow quantity and timing have been altered by past management activities, especially road and railroad building, logging and livestock grazing.

The extent of which land management activities have effected the function of ground water recharge and movement is not known, however, activities which alter soil condition (compaction, displacement, burning, or puddling), cut into slopes and intercept groundwater flow, or occur directly within upland wetlands, seeps, or springs have an effect on ground water routing and quantity.

The drainage network within the project area subwatersheds has been increased by extensive road building. Three subwatersheds exceed the Forest Plan standard for open road density of 2.5 miles of road per square mile. These are Middle Mud (2.53), Tope (3.37), and Upper Mud Creek (3.46) subwatersheds. Overall the proposed project area subwatersheds are rated Functioning at Risk for the Drainage Network habitat indicator.

**Watershed Condition** – Disturbance History, RHCAs, and road density are indicators of watershed condition that could be affected by the proposed OHV trail system. Disturbance History is an indicator of how much past management practices have affected a subwatershed's drainage. A primary indicator is ECA (equivalent clear cut acres), which adds the amount of a subwatershed occupied by roads and timbered land acres less than 30 years old. If this total is less than 15% of a subwatershed, it is considered a low risk of increased streamflow. A total of between 15% and 30% is considered a moderate risk of increased stream flows, and greater than 30% is considered a high risk. The Grande Ronde River/ Mud Creek Watershed has been given a moderate risk, and a Functioning at Risk Matrix rating.

RHCAs consist of vegetation that provides shade, LWM recruitment, habitat protection, and connectivity within a subwatershed. RHCAs in the analysis area are generally in good condition, although isolated sections of all of the streams show evidence of historic road construction, timber harvest, and grazing, as well as current grazing and road use. These areas are characterized by riparian plant communities lacking the shrub species composition and diversity required for a healthy and functioning riparian community. Two of these stream sections, both along Buck Creek, have been included in riparian exclosures. Large wood has been added to the channel in Buck Creek for 3.3 miles. In addition, 16 springs and two ponds have had livestock exclosure fences built to protect water sources from livestock damage. These exclosures consist of a barbed wire protection fence, with native trees and shrubs planted where determined necessary. Although generally on an upward trend, due to sections of stream lacking adequate riparian vegetation and the associated loss of riparian function, this habitat indicator is rated Functioning at Risk for the analysis area.

The Road Density habitat indicator is currently rated as Functioning at Risk overall, with two subwatersheds in each rating category. Middle Courtney and McAllister Creeks are Functioning Appropriately, Buck and Middle Mud Creeks are Functioning at Risk, and Lower Tope and Upper Mud Creeks are Functioning at Unacceptable Risk.

**Clean Water Act** - The Clean Water Act provides direction “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters”. To carry out this law, the State of Oregon has established state water quality standards for factors such as water temperature, sedimentation, habitat modification and pH, and an anti-degradation policy to protect water quality conditions. Under the anti-degradation policy in Section 303(d) water bodies that do not meet water quality standards are designated as “water quality limited”.

Table 19 shows the 2002 ODEQ (Oregon Department of Environmental Quality) 303(d) list of Water Quality Limited Streams within the proposed project area and the reason for listing. Water quality limitations have been identified for one stream, Mud Creek, in the proposed project area for water temperature for spawning and rearing of Snake River steelhead. A TMDL (Total Maximum Daily Load) assessment has been started for Wallowa County by ODEQ, with the designation of a diverse committee of individuals from Wallowa County and the collection of preliminary data. Budget limitations have halted progress on completion of the TMDL. Upon completion of the TMDL, the information will allow land managers to write WQRP (Water Quality Restoration Plans), which when implemented will move water quality parameters towards desired goals and objectives. Water quality limitations have been identified for streams in the proposed project area for summer water temperature. Until the TMDL and WQRP are completed, projects are designed to comply with existing Forest Plan management direction, including PacFish.

**Table 19 – Project Area Water Quality Limited Streams ODEQ 303(d) List of 2002**

Subwatersheds	Stream Name	Segment	Listed Parameter
Mud Creek	Mud Creek	Mouth to Headwaters	Summer Rearing Temperatures* Spawning Temperatures*

\*State of Oregon DEQ Water Quality Standards state that there shall be no measurable increase in maximum water temperature that being less than 64°F in migration and rearing habitat and less than 55°F in spawning habitat. The upper lethal temperature for steelhead is about 75°F, with preferred temperatures ranging from 50-55°F.

***Alternative 1 – Aquatic Habitat***

**Water Quality** (Sediment and Chemical Contamination)– The continuation of current OHV use within the proposed project area would have little impact on sediment input or chemical contamination in the short term (0-5 years). Sediment production associated with riparian areas (streambanks) and uplands are expected to gradually improve a small amount in the short term under current management and OHV use. As new flood plains are developed and upland headwaters and springs stabilize a more noticeable improvement would occur (10-20 years). Hillslope and road related sediment regimes would change little from the existing condition. However, OHV use in the project area is on the rise and current management allows OHV riding off-road and on closed roads. OHV use is starting to result in bare soil in isolated areas where grass and forbs previously occupied the sites. Off-road trails are appearing in inappropriate locations (crossing creeks and running up steep hillsides) with no known maintenance being performed. Current management would likely result in increased sediment production in this watershed. No monitoring of use is currently being done.



**Channel Condition and Dynamics** (Peak/Base Flows and Drainage Network) – Isolated areas of poor riparian shrub quantity and diversity, unstable banks (mostly associated with livestock access to streams) exist within the proposed project area. These conditions are most directly due to grazing practices, historic railroad and road building, and wildfire, and have been on the upward trend for the last 20 years due to numerous restoration projects, road closures, reduced timber harvest levels, and better grazing management. Stream survey data from project area streams indicates that all streams except Buck (77%) and Burnt (89%) Creeks have greater than 90% stable banks. Continuation of current management is expected to result in an extended upward trend in subwatershed sediment regimes, primarily due to a greatly reduced amount of timber harvest, and continued improvement of grazing practices. Existing roads that are designated for closure (Refer to Table 3) would be closed as money becomes available. However, OHV use would continue to be allowed on all closed roads.

Runoff timing and quantity reflects the magnitude of disturbance in a watershed. Changes in vegetation, soil condition, floodplain function (capture and storage of water), and channel condition (safe release of water) all affect timing and magnitude of peak and base flows (MacDonald et al. 1991, Dunne and Leopold 1978). Historic management within the analysis area has altered the flow regime through soil compacting activities, road building, vegetation removal, and construction of water impoundments. Under Alternative 1 current management would continue leading to a gradual improvement in riparian vegetation species and age diversity, soil conditions, floodplain function, and channel condition. This would be due to restoration projects, improved grazing practices, and closing of existing roads as money becomes available. Open road densities in Middle Mud, Tope, and Upper Mud Creek subwatersheds would continue to exceed Forest Plan standards.

**Watershed Condition** (Disturbance History, RHCAs, and Road Density) – This alternative would allow an improving trend in Disturbance History as burned areas recover, regeneration harvest units age, and existing open roads are closed. However, open road densities in Middle Mud, Tope, and Upper Mud Creek subwatersheds would continue to exceed Forest Plan standards. Open road densities would be lowered as currently designated road closures are funded, but open road densities in the above named subwatersheds would continue to exceed Forest Plan standards.

This Alternative would provide long-range continued recovery to RHCAs. Riparian and water source protection fencing would continue to be maintained. Existing open roads designated for closing would be closed and problem culverts would be replaced as money becomes available. Livestock would continue to be managed in a way that allows riparian recovery from historic overuse. However, OHVs would continue to be ridden off-road and on closed roads.

The Drainage Network would likely remain the same in the short term (0-5 years), but may or may not improve in the long term (5-20 years) through the hydrologic recovery of closed roads depending on the amount of OHV use in the project area.

***Alternative 2 – Aquatic Habitat***

This analysis assumes that all trails are maintained, all mitigation/protection measures would be followed, the monitoring plan would be implemented, and law enforcement would occur.

This alternative has the highest OHV trail mileage and would result in the lowest number of road miles closed to motorized vehicles (refer to Table 3).

**Water Quality** – All of the subwatershed Matrix Water Quality Indicator ratings would be maintained.

Alternative 2 would result in 89 miles of OHV-only road/trail, 18 miles of which would be new trail construction. Most new trail construction would be outside of RHCAs and located on old abandoned road beds, old skid trails, and livestock trails. Trail construction would connect existing roads to make loops for a higher quality trail riding experience. New trail construction would be done with a SWECO 450 dozer, which is a machine designed to construct trail. The SWECO 450 is a tracked machine with a 6-way blade in the front and a backhoe in the back, and is 48 inches wide. It has 11 inch wide tracks and a ground compaction rating of 5.7 p.s.i. Trails would be constructed to bare soil to a width that would vary between 30 and 48 inches. An additional clearing of brush and downed logs would be done on either side of the trail tread for a distance varying between three and five feet, depending on the amount of side slope. Drainage would be facilitated through the construction of drain dips, and in a few places flexible water bars (constructed of conveyor belt material sandwiched between non-treated 2x6s) may be used. Trails would be constructed to have a rolling and winding character in order to keep sight distances short. Short sight distances allow fewer high speed and acceleration areas, resulting in less soil displacement. This would be accomplished by utilizing the terrain, vegetation, and rolling dip construction.

Under this Alternative three new crossings of perennial streams and two crossings of intermittent streams would be included as part of the new trail construction. These would be on Buck, McAllister, and Mud Creeks, which contain Snake River steelhead and on two unnamed intermittent streams. The bridge sites are located near the upper extent of steelhead distribution in stream sections that are intermittently dry late July. All stream crossings would be made with bridges. Stream crossings of perennial and intermittent streams would be done as follows: 1) Trail would be constructed within the RHCA as perpendicular to the stream as possible, minimizing the amount of RHCA trail construction, and would be rocked to prevent erosion; 2) a bridge would be constructed out of non-treated wood or metal and set on abutments that have been placed above the bankfull level.

The crossing at Buck Creek is currently a livestock crossing site. The stream banks at this site have been broken down for approximately 8 feet of stream length, and are contributing sediment to the stream. Construction of this bridge, with wood placed strategically along the bank, would force livestock to use the OHV bridge, potentially eliminating this sediment source. The McAllister Creek site is currently a ford on a closed road. This ford is being used occasionally by OHVs, and is a minor sediment source to the stream. A rocked

trail and bridge would eliminate this. In addition, RHCA segments of two roads in the McAllister Creek crossing vicinity, roads 020 and 024, would be decommissioned and hydrologically stabilized, eliminating these sediment sources to this stream. The Mud Creek crossing site is not currently being used by livestock or OHVs. This crossing is needed to tie the trail system east of Mud Creek with the system on the west side. Forest road 3035 crosses Mud Creek approximately one mile downstream of the identified trail crossing. However, the section of the 3035 road leading to the Mud Creek crossing is narrow with very low sight distances and unsafe for combined OHV and full-sized vehicle use.

New trail construction would cross approximately nine ephemeral draws. All trail crossings of ephemeral draws would be rocked, using large cobble-sized rock covered with smaller cobble and gravel, to allow ephemeral flow without erosion of the trail, and associated sediment.

No increase in sediment to steelhead streams would be anticipated from the trail construction due to protection measures that would be followed. The amount of sediment delivered to both Buck and McAllister Creeks would be less than current conditions by replacing existing livestock, OHV and road crossings with bridges, and by decommissioning roads 020 and 024.

Monitoring and maintenance of trails is proposed as part of Alternative 2 (and all other action alternatives). Enforcement of road closures and off-road travel restrictions would also be included. The monitoring, maintenance, and enforcement would serve to keep OHVs on designated routes, and would discover and correct problem areas.

The Chemical Contamination indicator of fish-bearing streams is currently Functioning Appropriately for all subwatersheds in the proposed project area. Implementation of this Alternative would maintain that rating. Having OHVs on designated routes that are monitored and maintained would lessen the probability of fuel spills that could reach any fish-bearing stream.

**Channel Condition and Dynamics** – All of the subwatershed Matrix Channel Condition and Dynamics indicator ratings would be maintained.

Bank Stability ratings in the proposed project area subwatersheds are Functioning Appropriately except for Buck Creek, which is Functioning at Risk. All perennial streams within the analysis area, except Buck (77%) and Burnt (89%) Creeks have bank stability levels greater than 90%. The proposed crossing at Buck Creek would increase bank stability in the vicinity by replacing the livestock ford with a bridge and adding large wood along the stream to discourage livestock access to the stream and help stabilize the banks. Replacing the vehicle ford across McAllister Creek with a bridge would allow increased bank stability at that site also. Decommissioning of RHCA sections of roads 020 and 024 in the vicinity of the McAllister Creek crossing would further reduce potential sediment input and bank damage. Installing bridges at all intermittent and perennial stream crossings would help prevent trail use from affecting streambanks. Aside from stream crossings, there would be no effect to bank stability from OHV trails or their use.

Peak and Base Flows would be minimally but positively affected by this alternative. There

would be 25 miles of existing open road closed to all motor vehicles. No motorized use would be authorized on any closed roads. No off-road use of OHVs would be permitted through this alternative. All trails would be monitored and maintained, and closures would be enforced. Overall, if this Alternative is implemented a net decrease in open road density would be realized in all analysis area subwatersheds. However, since all new trails constructed would function hydrologically as roads, the total road density would effectively be increased in all subwatersheds.

**Watershed Condition** – All of the subwatershed Matrix Watershed Condition Indicator ratings would be maintained. Open road density overall would be reduced from 2.75 to 2.56 during the riding season, and 2.27 during the trail closed season. However, total road density (when including new trail construction) would be increased in all subwatersheds.

Drainage Network, Road Density, and Disturbance History would be affected in a similar manner. Although this alternative contains the most miles of OHV trails, the resulting net loss in open road densities for all subwatersheds in the analysis area would offset some adverse effects on these habitat indicators.

RHCAs would continue to improve at approximately the current rate. Elimination of two chronic sediment sources, on Buck and McAllister Creeks and replacing them with bridges should have a net positive effect on those RHCAs. Decommissioning of the RHCA sections of roads 020 and 024 near McAllister Creek would contribute to additional improvement in RHCA conditions.

Designating no OHV use off-road or on closed roads would also have a beneficial effect on all Watershed Condition habitat indicators over current management.

As a result of the TMDL process, a Water Quality Restoration Plan will eventually be developed for the Lower Grande Ronde Subbasin. Until then, ODEQ requires that conditions will be maintained or enhanced relative to parameters for which a 303(d) stream is listed. No increase in stream water temperatures is expected with the implementation of this alternative. The current condition would be maintained. Fenced reaches are providing streamside shading which help regulate stream temperatures. Unfenced reaches would continue to experience livestock grazing of riparian vegetation within utilization standards.

Implementation of this alternative would help to alleviate existing conditions that affect hydrologic functionality to a small degree. Under this alternative, 18 miles of OHV-only trail would be constructed. There would be 34 miles of existing open road, and 58 miles of existing closed road (currently not closed to OHVs) closed to all motorized vehicles. This would result in a net gain of 92 miles of existing road bed that would recover at natural rates. In addition, this Alternative would no longer allow off-road use by OHVs. This would result in less soil disturbance across the landscape than is occurring currently.

The season of trail use would be from June 15 until 12” of snow accumulates at the staging area at mile post 19 on Highway 3, north of Enterprise.

Refer to the later section entitled Cumulative Watershed Effects for the cumulative effects analysis on aquatic habitat.

This alternative is consistent with the Wallowa-Whitman National Forest Standards and Guidelines for Watershed (1990, pp 4-22). The goal is to maintain or enhance the unique and valuable characteristics of riparian areas and to maintain or improve water quality, stream flows, wildlife habitat, and fish habitat. With the mitigation and monitoring attached to all action Alternatives and with current and proposed restoration projects, watershed conditions are expected to be on an upward trend.

**Clean Water Act** – This alternative is consistent with the Clean Water Act because there would be no additional effect to the parameters for which one stream (Mud Creek) in the analysis area was placed on the ODEQ 303(d) list.

### *Alternative 3– Aquatic Habitat*

In the short term (0-5 years), implementation of Alternative 3 would produce the same overall effects as Alternative 2. In the long term (5-20 years) this Alternative would improve watershed and aquatic conditions at a faster rate than Alternative 2 due to the lower miles of OHV trail and the much higher mileage of roads closed to all motorized vehicles (refer to Table 3). Under Alternative 3, only two crossings of perennial streams would be made, on McAllister and Mud Creeks and one crossing on an unnamed intermittent stream. These crossings are incorporated into all action Alternatives in order to tie three of the main ridge trail systems together. Another benefit to aquatic habitat from this alternative would be that the season of use is much shorter than Alternatives 2 and 4. All action alternatives begin the trail riding season on June 15, when the trails would be dry enough for use. Alternatives 2 and 4 would allow the riding season to extend until there is 12” of snow on the ground, which is not certain to occur. Alternative 3 closes the riding season 3 days prior to the beginning of archery season, in mid August. Closing the season this early would result in far less potential for trail erosion to occur when fall rains and early winter wet snows arrive.

### *Alternative 4 – Aquatic Habitat*

In the short term (0-5 years), implementation of Alternative 4 would produce the same overall effects as Alternative 2 and Alternative 3. In the long term (5-20 years) this Alternative would improve watershed and aquatic conditions at a faster rate than Alternative 2 due to the lower miles of OHV trail and the higher mileage of road closed to all motorized vehicles (refer to Table 3). It would likely not improve watershed and aquatic conditions at a rate as fast as Alternative 3, because it contains 13 fewer miles of road closure and 2.4 more miles of newly constructed trail. Under Alternative 4, the opening of the riding season would vary from year to year, determined by soil moisture and trail conditions. Prior to June 15 Forest Service recreation and hydrology representatives would monitor “key” areas – those which would be most representative of the potential for rutting, soil displacement, and erosion – to determine when the trail system could be opened to riding. The trail “key” areas would be monitored throughout the riding season, and if trail conditions become too wet the trail system would be closed until conditions become acceptable. The season closure of the trail system would use the same monitoring procedure. The ability to open and close the trail system depending on trail conditions

could further reduce the likelihood for soil displacement and erosion. This alternative is the same as Alternative 2 with respect to bridge installation, except it would add one more perennial stream crossing, on Burnt Creek, for a total of four perennial stream crossings and two intermittent stream crossings. The Burnt Creek crossing site would be located at a narrow point in the valley floor, so a minimum of RHCA trail location would be needed.

### *Alternative 5 – Aquatic Habitat*

Alternative 5 would establish a 156 mile OHV trail system in the Sled Springs OHV area that consists of: designating 60 miles of existing roads for OHV use only; designating 71 miles of existing roads for OHV and full-sized vehicle use; and constructing about 25 miles of new trail for OHV use only. About 18 miles of designated trail would be located in RHCAs, the majority of which would be located on existing roads. About 1.9 miles of new trail would be constructed in RHCAs. Bridges and trails within RHCAs would be designed to prevent sediment from entering any stream. Trails within RHCAs would be rocked, and would not parallel the stream. Trails would approach stream crossings perpendicular to the stream as much as possible. A total of six OHV bridges would be constructed over Buck, McAllister, Mud and Burnt creeks and two unnamed intermittent streams. Under Alternative 5, 83 miles of currently open road would be closed to motorized use and another 4.1 miles would be decommissioned, with 25 miles of new trail construction. One staging area would be constructed for unloading and loading OHVs. The staging area would not be located in an RHCA. In addition the 38,283 acre Sled Springs OHV analysis area would be closed to cross country travel off the designated trail system by OHVs except to access dispersed recreation sites up to 300 feet off of designated trails. About 25 estimated miles of user created OHV trails not incorporated into the designated trail system would be rehabilitated over the next 5 years. (Note: This effects analysis assumes that all trails are maintained, all mitigation/protection measures would be followed, the monitoring plan is implemented, and law enforcement occurs.)

Alternative 5 is a modification of Alternative 4 that addresses concerns expressed by Nez Perce Tribe. Adverse effects to aquatic habitat would differ from the effects of Alternative 4 because 4.1 miles of road would be decommissioned compared to 0.3 miles under Alternative 4. The majority of road segments to be decommissioned are located in RHCAs; about 2.8 miles in total. Also, unlike the other action alternatives, existing user created trails that are not incorporated into the new trail system (about 25 estimated miles) would be rehabilitated to speed their recovery and eliminate them as sources of fine sediment. These trails would be rehabilitated by waterbarring, filling in ruts, seeding with native species, and scattering material over trail. These trails would be rehabilitated over the next 5 years.

A greater reduction in fine sediment production from roads would occur under Alternative 5 compared to Alternative 2 because an additional 13 miles of existing open roads would be closed to all motorized vehicles. The amount of new OHV-only trail construction would be greater under Alternative 5 with seven additional miles constructed under Alternative 5 compared to Alternative 2.

The season of use of the OHV trail system under Alternative 5 would begin on April 1 and end 3 days prior to the opening of rifle elk season (late October). Alternative 5 also

introduces an additional seasonal closure for McAllister Ridge, which eliminates all motorized use on the ridge from 3 days prior to archery season to 3 days prior to the opening of rifle elk season. In comparison, Alternative 4 has a season of use that would begin when soil conditions are adequately dry and would end when 12 inches of snow are present. Under most annual conditions, Alternative 4 would allow for a longer season of use for the trail system than Alternative 5. Alternative 5 also adopts trigger monitoring for wet soil conditions, under which the trail system would be closed when soil conditions are not adequately dry to support trail use.

### *Alternative 1 – Evolving Baseline Condition*

The analysis area for the evolving baseline and cumulative watershed effects analysis is the five subwatersheds that include the Sled Springs area. The analysis area has a ‘moderate’ risk of adverse cumulative watershed effects based on past and ongoing activities. Implementation of Alternative 1 could reduce, in the long term (5-20 years), the risk of adverse cumulative watershed effects even when integrated with other ongoing activities if OHV use does not increase.

Road maintenance, vegetation management and fuels reduction projects, recreation activities (including OHV use on open and closed roads), and restoration projects are ongoing activities that would still occur within the analysis area. The cumulative effect of historic landscape changes and ongoing activities is evident in the uplands, headwaters and main channel riparian zones within the analysis area through:

- Changes in soil and water processes from past and current activities
- Channel downcutting through fine-grained soils from channel modifications and peak flows
- Increased channel bankfull width/depth ratios from past riparian harvest and stream-side grazing
- Reduced streambank function from the loss of vegetation and direct road and livestock impacts

Continuation of existing low levels of OHV use would maintain the current recovery of vegetation (1 to 5 years) and channel morphology (5-20 years) for sections of streams in poor condition. Uncontrolled high levels of OHV use over time would increase the risk of adverse cumulative watershed effects to ‘high’. In the short term, however, cumulative watershed effects would still be rated moderate.

### *Alternatives 2, 3, 4, and 5 – Cumulative Watershed Effects*

The following table lists actions that are either planned or ongoing within the Sled Springs OHV Trail Proposal and Access Management Project area.

**Table 20 - Summary of Ongoing and Reasonably Foreseeable Actions by Subwatershed**

Subwatershed	Project Name	Completed, Ongoing or Proposed	Risk of Cumulative Watershed Effects
Middle Mud Creek	Wolf Vegetation Management	O	L
	Dispersed Recreation	O	L
	Culvert Replacement	P	M
	Road Maintenance	O	M
	Harvest of Special Forest Products	O	L
	Buck Creek Allotment	O	M
	Tope Creek Allotment	O	M
	Mud Creek Allotment	O	M
	Buck Vegetation Management Project	O	L
	Noxious Weed Management	O	M
	Non-Commercial Thinning	P	L
	OHV Recreation	O	M
Tope Creek	Wolf Vegetation Management	O	L
	Dispersed Recreation	O	L
	Culvert Replacement	P	M
	Road Maintenance	O	M
	Harvest of Special Forest Products	O	L
	Tope Creek Allotment	O	M
	Noxious Weed Management	O	M
	Non-Commercial Thinning	P	L
	OHV Recreation	O	M
Upper Mud Creek	Wolf Vegetation Management	O	L
	Dispersed Recreation	O	L
	Culvert Replacement	P	M
	Road Maintenance	O	M
	Harvest of Special Forest Products	O	L
	Biomass Prescribed Burn	O	L
	Buck Creek Allotment	O	M
	Mud Creek Allotment	O	M
	Noxious Weed Management	O	M
	Buck Vegetation Management Project	O	L
	Biomass III Salvage	O	L
	Non-Commercial Thinning	P	L
	OHV Recreation	O	M
Buck Creek	Wolf Vegetation Management	O	L
	Dispersed Recreation	O	L
	Culvert Replacement	P	M
	Road Maintenance	O	M
	Harvest of Special Forest Products	O	L
	Buck Creek Allotment	O	M
	Day Ridge Allotment	O	M
	Noxious Weed Management	O	M
	Buck Vegetation Management Project	O	L
	Non-Commercial Thinning	P	L
	OHV Recreation	O	M
Middle Courtney Cr	Dispersed Recreation	O	L
	Culvert Replacement	P	M
	Road Maintenance	O	M
	Noxious Weed Management	O	M
	Harvest of Special Forest Products	O	L
	Buck Creek Allotment	O	M
	Day Ridge Allotment	O	M
	Non-Commercial Thinning	P	L
	OHV Recreation	O	M



For federally managed lands, the following general criteria were used to rate the risk of aggregate effects for each activity based on the matrices.

**Low:** A low rating is assigned if there are no questionable adverse effects on stream characteristics or fish habitat. No cumulative effects are expected. The activity is controlled by seasonal or spatial restrictions.

**Moderate:** A moderate rating is assigned if there are potential effects on stream characteristics or fish habitat. Cumulative effects are possible. The activity is not completely controllable and administration of the project is needed to prevent adverse effects.

**High:** A high rating is assigned if there are obvious adverse effects on stream characteristics or fish habitat. Cumulative effects are probable. The activity is not completely controllable and intense administration of the project is needed.

**Vegetation Activities** - Vegetation activities include the Biomass, Buck, and Wolf Vegetation Management projects, the Biomass 3 Salvage Sale, and proposed non-commercial thinning. The Biomass project (Decision signed in 1996) has completed harvest activities, which included 2040 acres of commercial thinning. Prescribed burning of 1,037 acres has not yet been completed. Buck Vegetation Management Project (Decision signed in 2000) involved harvest of 788 acres of commercial thinning and prescribed burning. There are 783 acres of prescribed burning remaining to be accomplished on this project. Wolf Vegetation Management Project (Decision signed in 2001) involves 550 acres of commercial thinning (completed), 1935 acres of prescribed burning, and 19.4 miles of road to be closed. The prescribed burning and road closures still remain to be done. Biomass 3 (Decision signed in 2004) was a salvage sale that included harvest of 203 acres of fire-killed timber. This project has been completed.

Potential effects from proposed burning activities in the Biomass, Buck, and Wolf project areas are short-term increases in fine sediment and mortality of trees in burned areas within RHCAs in the project area. Prescribed burning in RHCAs is accomplished by allowing fire to back into RHCAs rather than directly igniting in RHCAs. The use of backing fires in RHCAs will reduce fire intensities while reducing fuel loading. Reduced fire intensities in RHCAs will 1) reduce the potential for mortality of trees that provide shade, 2) reduce the amount of downed woody material consumed, and 3) reduce the amount of burned area in the RHCAs thus reducing the amount of ground cover loss. All of the vegetation management projects were rated as having a **low** risk of cumulative effects because no harvest or prescribed fire ignition would occur within RHCAs.

**Grazing Activities** - On the 13,200-acre Mud Creek Allotment, permits authorize up to 800 ewes with lambs from May 15 to September 25. This allotment is grazed as one unit as is characteristic of sheep allotments. The band of sheep enters the allotment from the northern end. Sheep are herded in a southerly route to camps. Bedding grounds are used for one night only. After the ewes and lambs are separated in early September, the ewes are herded back out north. On the 22,700-acre Buck Creek Allotment, permits authorize up to 310 cows with calves from June 1 to October 31. The allotment is divided into 6

pastures, which are managed under a deferred rotation strategy. On the 7200-acre Topo Creek Allotment, permits authorize up to 107 cows with calves from June 1 to September 30. The allotment is managed under a rotational system where two pastures are grazed alternately spring or summer. On the 2620-acre Day Ridge Allotment, permits authorize up to 100 cows with calves to graze from May 1 to May 30. The area is divided into three pastures that are grazed each year.

The risk of adverse cumulative effects from ongoing grazing within the analysis area is **moderate**. The moderate risk is due to the possible reduction in riparian shading, streamside trailing of animals, streambank trampling, and soil compaction and disturbance. In addition, administration of the activities is needed to prevent adverse effects. A high rating is not justified due to many areas of channel that are not accessible to animals because of the steep canyon topography, dense riparian vegetation or fencing. The implementation of livestock rotation systems, utilization standards, continued fence maintenance on existing enclosures and water developments will reduce the risk of the effects.

**Noxious Weed Treatment** - Noxious weed treatment is an ongoing project that occurs within all project area subwatersheds. These treatments were determined to either have No Effect or to May Affect, Not Likely to Adversely Affect Snake River steelhead. Consultation with NOAA Fisheries has been completed for the May Affect, Not Likely to Adversely Affect determinations. Mitigation measures that include type of chemical treatments, application rates, area treated, timing, and buffers on streams significantly reduce the risk of effects from this activity. However, the overall risk of adverse aggregate effects due to noxious weed treatment is rated **moderate** because they are not completely controllable, and need to be administered.

**Recreation Activities**- There are no developed campgrounds in the project area. A limited amount of dispersed camping occurs in this area, but due to the lack of lakes or streams that flow in late summer this activity is rated as having a **low** risk of cumulative effects on listed fish or their habitat.

**Road Maintenance** – The short-term effects from all of the transportation activities would be minimized through protection measures, such as instream work windows, operating under dry conditions, etc. (Refer to the *Addendum to the Lower Grande Ronde Subbasin*, March 6, 2005 for a specific analysis of the potential effects in the transportation activities section). In the long-term, this project would protect and improve existing habitat. The overall risk of adverse aggregate effects for transportation activities in the short term is rated **moderate**. The overall risk of adverse aggregate effects for transportation activities in the long term is rated **positive**.

There are five culverts proposed for replacement within the Grande Ronde River/ Mud Creek Watershed. However, no timeline has been developed to replace any of the 5 culverts at this time. These replacements are proposed to eliminate migration barriers to juvenile fish and to allow passage of 100-year flows. These projects were given a likely to adversely effect determination in the consultation with NOAA Fisheries due to the short-term possibility of sediment input to streams. In the long term, however, these projects are expected to have a positive effect on listed fish species and habitat. They are given a **moderate** risk of adverse cumulative effects due to potential short-term impacts.

**Special Forest Products Collection** - Collection of fuelwood, Christmas trees, saw logs and house logs (up to three truck loads per permit), and posts and poles are permitted only in Management Areas 1, 3, 6, 10, and 11. Harvest of these products is not permitted in administratively prohibited areas such as developed campgrounds or within 100 feet of wet areas, seeps springs, bogs, and standing or flowing water. No trees are permitted to be cut within 300 feet of perennial fish-bearing streams. Compliance with these regulations is monitored by USFS Special Forest Product Coordinators and Law Enforcement Officers. These activities are given a **low** risk rating for cumulative adverse effects to listed fish species.

**Private Land Harvest** – Oregon Department of Forestry regulates timber harvest on private land. Information on harvest of adjoining parcels is available in the analysis file. Refer to the Wildlife Section on effects to elk for a synthesis of this information.

**OHV Recreation** – OHV recreational riding has the potential to adversely affect fish species and soil resources through unrestricted riding through the landscape, which includes bank damage from crossing streams, turbidity from crossing streams, soil displacement from riding up steep hills and consequent erosion when water collects in ruts and runs downhill, soil compaction and displacement from riding while soils are wet, and riparian vegetation damage from riding next to streams. The overall risk of adverse cumulative watershed effects due to OHV recreation is **moderate to high; moderate** if riding is restricted to designated routes, routes are located away from streams, routes do not go up steep slopes, riding occurs only during dry conditions and stream crossings are protected by either rocked fords or bridges. The risk of adverse cumulative watershed effects is **high** if off-trail travel is allowed and there is no protection provided at stream crossing sites.

**Foreseeable Future Actions** – The Westside Rangeland Analysis is currently being prepared for reissuing grazing permits for the Buck Creek, Day Ridge, Mud Creek, and Tope Creek allotments as part of the Westside Range Analysis. Minor changes in management of the Day Ridge, Mud Creek and Tope Creek allotments and development of additional water sources are proposed to address resource issues related to livestock grazing. Aquatic habitat on these allotments is improving under the current grazing management regimes. The proposed changes will continue the improvement of aquatic habitat conditions and therefore there is a low risk of adverse cumulative watershed effects between proposed grazing activities on these three allotments and the Sled Springs OHV Trail System action alternatives.

**Cumulative Watershed Effects Summary** – Historic management activities such as historic railroad and road building, railroad logging, tractor and skyline logging, and intensive livestock grazing have had predominantly negative impacts to aquatic habitat, aquatic species (including SRB steelhead and redband trout) and soil productivity in the Sleds Springs OHV Trail System project area. Some impacts resulted in a decline in aquatic and riparian habitats through frequent road/stream crossings, undersized culverts, riparian harvesting and intensive grazing practices. Other impacts have resulted in soil compaction and displacement that persists to this day. Water temperatures and fine sediment levels in the project area are likely higher today than prior to European settlement, and some soil productivity has been lost due to the changes in soil structure from displacement and compaction by mechanized equipment and hoof actions on soft soils.

Current activities on Forest Service lands (refer to Table 20) are managed under the PACFISH standards and guidelines which were developed to recover riparian and aquatic habitats. Despite these improved management practices, the combined effects of historic and current management practices still exist on the landscape. The most affected sites include unmaintained roadbeds with poor or non-existent drainage structures, old skid trails within logging units, livestock trails in the uplands, livestock trails along stream bottoms, unprotected streambanks, springs, salting areas, and developed water sites. PFC assessments conducted in 2007 within the project area, however, indicate that the majority of streams are recovering from past degraded conditions.

As previously described in the Soil Productivity and Aquatic Habitat sections, Alternative 1 has the potential to have the worst effects on the soil productivity and aquatic habitat based on the likelihood that OHV use will increase dramatically over the next few years and there is unlimited opportunity to travel off-trail, through streams, up steep hills, at any time of year, no matter the water content of the soils, creating opportunities for erosion and sediment delivery to streams. There is a small chance that soil productivity and aquatic habitat may not change from the current condition in Alternative 1 if OHV use is not increased, but that scenario is highly unlikely. Alternatives 2, 3, 4 and 5 would likely improve soil productivity and aquatic habitat over Alternative 1 to varying degrees. Alternative 3 would have the greatest improvement due to the most miles of roads closed to all motorized vehicles, the lowest number of trail and road miles available for riding, and the shortest season of use. The effects of Alternatives 4 and 5 on soil productivity would be very similar, with Alternative 5 being slightly better with 3.8 more miles of road decommissioning and less potential for riding during wet times of the year due to the fixed October end date. Alternative 2 falls in between Alternatives 3 and 4 in effects to soil productivity and aquatic habitat.

Although recent PFC assessments show that the majority of streams in the project area are recovering, five planned or ongoing activities outlined in Table 20 have a moderate risk of having adverse cumulative watershed effects on soil productivity or aquatic habitat within the project area: livestock grazing, noxious weed treatment, road maintenance, culvert replacements and OHV recreation. Livestock grazing, noxious weed treatment road maintenance and OHV recreation are ongoing activities, while culvert replacements would be singular activities happening at a rate of 1-2 per year. These activities combined with implementing Alternative 1 have a moderate to high risk of adverse cumulative watershed effects depending on the level of OHV recreational use in the project area in coming years – a high level of uncontrolled OHV use producing a high risk of adverse cumulative watershed effects. Alternatives 2, 3, 4 and 5, through restricting OHV use to an established trail system, providing bridges over stream crossings, limiting the season of use, and constructing trails in appropriate locations with adequate drainage, would maintain a moderate risk of adverse cumulative watershed effects when combined with other ongoing activities, and would be preferable to Alternative 1.

## Botanical Resources

### *Existing Conditions – PETS Plant Species*

**Threatened or Endangered** - According to a pre-field review, there are no known listed threatened, endangered (T&E) or proposed plant species within the project area. Federally listed species (USFWS February 9, 2008 Federally Listed, Proposed, Candidate, Species And Species of Concern Which May Occur Within Wallowa County, Oregon) considered in this analysis and that might occur near the Sled Springs OHV project areas are the listed Threatened *Mirabilis macfarlanei*, & *Silene spaldingii*. No species or habitat exists within the analysis area for *Mirabilis macfarlanei*. The analysis area does have potential habitat for *Silene spaldingii*, but none have been found during surveys of the project area, or in other surveys conducted within the analysis area.

In addition to the above Threatened species, the USFWS lists *Botrychium lineare* (slender moonwort) as a Candidate species. Candidates “have no protection under the act but could be proposed or listed during the planning period, and would then be covered under Section 7 of the Act.” (USFWS 2002). Two known sites on the Wallowa - Whitman NF are near and in the Eagle Cap Wilderness in the cool, limestone influenced drainages emanating from the high elevation mountains. It is unlikely that there is potential habitat for this species within the Sled Springs OHV Project area. Any terrain that might be habitat within the project area, would be associated with riparian areas (seeps to creeks), and mesic, forb dominated meadows. This low potential habitat would fall within buffered riparian areas, in which there would be little impacts from activities associated with this project. Thus it is concluded that there would be no impacts to this species from project implementation.

No threatened, endangered, proposed, or candidate, plant species were located during any of the inventories completed for the Sled Springs OHV proposal or surveys for other proposals.

**Sensitive Species** - Based on this review and additional information (habitat condition, photo interpretation, local knowledge of the species of concern and the activities to be conducted) it was determined that possible habitat for the following sensitive plant species may exist within the project area: *Botrychium* species, *Calochortus macrocarpus* var. *maculosus*, *Carex backii*, *Erigeron engelmannii* var. *davisii*, *Mimulus clivicola*, *Phacelia minutissima*, and *Cypripedium fasciculatum*. Although additional species and habitat may exist within the project area, these are the ones considered to have the highest potential for occurrence, or occur within habitat types which are most likely to be impacted from project activities.

Field inventories completed for the Sled Springs OHV proposal and for other proposals in the area resulted in the identification of two populations of the FS Sensitive species *Calochortus macrocarpus* var. *maculosus* on McAllister Ridge and two populations on Day Ridge.

*Calochortus macrocarpus* is the most common and widespread species of Mariposa lily in the intermountain northwest. However, *Calochortus macrocarpus* var. *maculosus* is a

regional endemic known from a small area centering on Lewiston Idaho. It is found in the very northern end of Wallowa County from Jim Creek on the Snake River, west to the breaks of the Grande Ronde River and its tributaries. This bulbed perennial lily is a species of mid-elevation grassland (fescus or bluebunch wheatgrass) or sagebrush habitats to sparse, parkland-like pine stands. Its flowers and stem are highly palatable to livestock.

Two of the four known occurrences of this species within the analysis area are near the northern end of McAllister Ridge, and west of Forest service roads 215 and 3030. These are the two patches closest (w/in 500ft) to any route within the proposed project area and the only two locations to be discussed in the analysis of effects. The other two sites within the analysis area are along the northern part of Day Ridge, and are miles from any proposed route associated with the project area.

#### *Alternative 1 – PETS Plant Species*

This alternative would have no effect to Proposed Threatened, or Endangered species. There are no documented locations or habitat within the analysis area, and there would be no change in the activities under analysis.

Two of the documented Sensitive plant locations within the analysis area are approximately 250 and 400 feet from an existing open road (3056-589 (3056= county road 565, the Day ridge road)). The other two are approximately 214 and 195 feet from an existing open road (3025-215). There will be no change in available motorized use activities under this alternative. There is some potential for current off-route travel to intersect and impact the *Calochortus macrocarpus* var. *maculosus* sites but the probability of this interaction occurring is considered to be very low because of their distance from the road and slope location/topography. OHV impacts were not noted at the sites when they were located during the 2007 field season, so it is possible that the chance of future impacts remains low even under increased use levels. There is notable potential for habitat impacts (habitat degradation / weedy species spread) resulting from continued unregulated travel to eventually cumulatively (with range impacts) affect the *Calochortus macrocarpus* var. *maculosus* sites (through ground disturbance and weed spread) but the potential degree of impact can not be quantified. Without being able to identify and quantify more specific, imminent threats, it is concluded that Alternative 1 may impact individuals but is not likely to cause a trend to federal listing or a loss of viability of *Calochortus macrocarpus* var. *maculosus*.

#### *Alternative 2 – PETS Plant Species*

**Direct and Indirect Effects** - Of the four *Calochortus macrocarpus* var. *maculosus* sites known from within the analysis area, only two are close enough to any proposed route to warrant a discussion of effects. These two sites are between McAllister Creek and McAllister Ridge but are greater than 200 feet from any proposed route (3025-215) or segment of new route construction. It is anticipated that design criteria will function as intended during construction and use, and that the proposed closure of off route travel to recreational users will meet compliance expectations. Even if unauthorized off-route riding

were to occur in this area, it is unlikely that these vehicles would travel in the direction of the rare plant occurrences because of dissuading topography and the lack of attractive riding features in this direction. Therefore it is considered highly improbable that trail construction or off-route trail riding would lead to direct impacts. Thus there would be no direct effects to this (or any other known Region - 6 Sensitive species) from implementing this alternative.

Alternative 2 also proposes to construct 18 miles of new trail in previously undisturbed (or somewhat undisturbed) habitat as well increasing use along an OHV route system of 166 miles in length. The new trail construction areas do not currently pass through any known rare plant sites.

Indirect effects that could lead toward cumulative effects to *Calochortus macrocarpus var. maculosus* from adding a designated OHV route system to the analysis area, would center on habitat disturbance, ground disturbance, and the spread of unwanted vegetation. Other than habitat fragmentation where trails bisect timber/grassland stands, and segments of new trail construction, this project is not proposing any stand condition manipulation, so relative to Sensitive plants, there would be no cumulative effects from some form of habitat/stand alteration. Implemented weed prevention design criteria for trail construction, should minimize potential effects from noxious weed spread during trail construction.

It is expected that implementation of this project will lead to increased use of the over-all area for dispersed camping. Currently this activity occurs mostly during hunting seasons. The increase in camping activities could impact habitat adjacent to the remaining open roads - at least up to 300ft from an open road. Although every square inch of the analysis area has not been surveyed, fairly extensive surveys have been completed for a number of projects in the overall area, and few rare plants have been located. Those that were located are not directly adjacent to roads nor currently known dispersed camp sites. It is considered a low probability that additional camping activities would impact more than a few un-located rare plant individuals.

OHVs and livestock are the two most significant vectors for weed transport along, and off of existing roads (USDA 2008). OHVs track vegetative material around in mud attached to the machine, in tire treads, in the matrix of undercarriage parts or on the riders clothing, etc. Noxious weed and weedy species impacts would occur through deleterious competitive interactions between the weeds and native species including *Calochortus macrocarpus var. maculosus*. Many miles of proposed OHV route pass through recorded roadside noxious weed areas. Project design criteria will act to minimize the potential for OHVs to spread these noxious weeds along the routes through aggressive monitoring and treatment actions. Still this may do little to deter the spread of other unwanted weedy species such as annual bromes or hounds tongue that are not on a noxious weed list. Increased use by all OHVs, and OHVs from outside of Wallowa County will increase the potential for transporting (from outside the project area) and spreading unwanted vegetation which would impact *Calochortus macrocarpus var. maculosus* and its habitat as well as other desirable vegetation types. Although project design features direct users to ensure that their OHV is cleaned prior to entering National Forest lands, there is currently no clearly effective mechanism for ensuring this happens and compliance is expected to be mixed. However, Alternative 2 would allow motorized travel only on designated routes, thus restricting the

area for potential spread. Project prescribed monitoring and treatment actions will reduce the potential to spread weeds along the route as well as increase the opportunities for detecting weeds in the route vicinity. Although use levels are expected to increase with route designation, it is anticipated that overall, prohibiting off-route travel will reduce (compared to the current condition) the potential for cumulative effects to *Calochortus macrocarpus* var. *maculosus* from noxious weed spread associated with OHV use. Still, this relative analysis of effects trade-offs is without quantification. Permittee use of OHVs within the analysis area and project area will also be governed by these standards. Off-route use by permittees will require a permit except in the case of emergencies.

**Cumulative Effects** - Past and current management actions considered for possible cumulative effects would be timber/fuels/fire management, livestock management (grazing), transportation system use, recreation and wood cutting, and noxious weed treatments. Due to a lack of historical reference conditions, it is not possible to determine definitively whether any of these activities have negatively impacted (or enhanced) patches of *Calochortus macrocarpus* var. *maculosus* across the district or in this project area.

In recent times (since approximately 1990) and currently, vegetation management, transportation management, range management, weed management, and developed recreation activities are designed under Forest Service guidelines that direct that projects be planned and implemented to avoid impacts that would reduce the viability of Sensitive plants (though individuals may be impacted). Project mitigation measures / design elements are used in the planning process to protect known Sensitive plant sites (here for *Calochortus macrocarpus* var. *maculosus* sites). It is expected that future (vegetation management) projects would be planned and implemented the same. Thus direct effects would be avoided or minimized and there would be little to no measurable cumulative effects from the interaction of the Sled Springs OHV route and most Forest Service permitted projects. Relative to rare plants, interactions between OHV route creation/designation and other management actions are fairly oblique, given the lack of recorded historical reference conditions, the lack of habitat impact studies on the sensitive species involved, and the general minimization of direct effects under this alternative.

The creation of the OHV route will not change how vegetation management and fire management activities are conducted other than through access levels (open/closed roads). If these activities need access beyond what is provided once the OHV route system is implemented, those projects would have to analyze and address those effects. Wildfire suppression activities are much less predictable and could cause undesirable impacts, when not well coordinated with a local resource advisor. A century of fire suppression has also likely had an impact on *Calochortus macrocarpus* var. *maculosus* habitat and plants through altering successional pathways and competitive interactions but this assumption is without quantification.

Given the history of homesteading and pattern of unregulated livestock grazing before the establishment of regulated grazing under the Forest Service, and given the mosaic performance of regulated grazing enforcement in the analysis area, it is probable that historic livestock management has impacted *Calochortus macrocarpus* var. *maculosus* habitat and plants but this assumption is without quantification.

Livestock behavior is one permitted activity that has widespread influences across the



landscape and is difficult to manage with much precision. Establishment of, and increased use of the designated routes may cause livestock (and wildlife) within the area to travel, forage, loaf, and bed in a different pattern across the landscape, thus leading to (new) potential impacts (herbivory and trampling) to *Calochortus macrocarpus var. maculosus*. In fact, livestock interests in the area have expressed considerable concern about potential OHV livestock disturbances. The probability of this happening in a manner that it would impact (direct movement toward) the known *Calochortus macrocarpus var. maculosus* sites is likely low. OHV use would be restricted to known designated routes (narrow linear features) instead of being able to ride all over (under the current condition). While not 100%, on-route compliance is expected to be high. Even with riders being restricted to designated routes, it is expected that the volume of use the routes get will increase significantly with the trail system designation. So it is probable that the noise and activity could cause off-route disturbances ‘spooking’ livestock into moving elsewhere. Livestock, like to travel along routes of least resistance, and will likely travel along the trail system (to some degree) during times when OHVs are not using a particular trail segment, only to be scattered off when users do come by. Whether or not these potential OHV livestock interactions would drive livestock toward the known *Calochortus macrocarpus var. maculosus* sites is not predictable but is considered of low probability given the data we currently have to work with.

Livestock and OHVs are the two most significant vectors for weed transport along, and off of existing roads. Livestock track vegetative material around in equipment that moves them, in attached mud, in hooves and fur. This project is not designed to manage livestock, nor address the potential for livestock to spread unwanted vegetation. That issue is to be addressed in the concurrent planning effort called the Westside Rangeland Analysis (USDA 2008b). In that planning process the potential for noxious weed spread by permitted livestock operations will need to be minimized in order to meet Forest Service range management and noxious weed management guidelines. Still there will be some interaction between weed material carried by livestock and the influence of their movements by OHV route use. Conversely, livestock could pick up weedy material from along the OHV routes and redistribute them off route. Aggressive OHV route monitoring for weeds as prescribed in the design criteria will minimize this potential impact through detection and treatment actions, but may not reduce the spread of some unwanted vegetation that are not on the noxious weed list. As designed, (with weed treatments and monitoring) the trail system should remain minimally infected with noxious weeds thus reducing the opportunity for these weeds to be spread along, or off trail by livestock (or wildlife), thus reducing potential cumulative effects. Again project design features will have less effect on other weedy species.

Given the number of roads in the analysis area and their topographic locations (the kinds of habitats roaded), it is probable that historic road building has impacted *Calochortus macrocarpus var. maculosus* habitat and plants but this assumption is without quantification. Vehicles are one of the main weed vectors and roads are one of the major avenues for the spread of noxious weeds. Alternative 2 proposes to close 70 miles of currently open roads. From the standpoint of roads as weed transport pathways, Alternative 2 would reduce the threat of noxious weed spread compared to the existing condition and thus reduce potential cumulative effects to *Calochortus macrocarpus var. maculosus*.

Currently the primary recreation activities are hunting, dispersed camping, wood cutting, and motorized travel. There are no designated trail systems or developed campgrounds. Firewood gathering permits govern off route travel to within 300 ft of an open road and would do so within the open roads of the OHV route system. The same potential for impacts exists with wood cutting as discussed above for dispersed camping. As stated above, in this area the potential for impacts to located or un-located rare plant patches within 300 ft of open roads is considered to be low. Although these recreational activities add intrinsically to similar actions associated with the OHV route system, they are not expected to contribute measurably to cumulative effects.

Noxious weeds are one of the greatest threats to *Calochortus macrocarpus var. maculosus* and its habitat. The majority of the known weed sites within the analysis area are along the road system. These are knapweeds and some Dalmatian toadflax. Weed treatment and monitoring work has been on-going in this area since 1989, or in some cases since 1994. To minimize potential impacts to rare plants from weed treatment activities, treatment efforts have been coordinated with the area Botany program through program management actions and through treatment specific EAs. The current treatment regime involves conducting weed detection/treatment and monitoring work along the open road system within this analysis area at an interval of about once every two years unless there is a specific ground disturbing project being planned in the area. Monitoring suggests that most of the known weed sites in the analysis area are currently under a reasonable level of control. Treatment now involves chasing and treating (chemically and manually) the occasional scattered individuals that continue to germinate from a long lived seed bed and scattered individuals that are freshly transported into the area along the road system. Bio-control agents are also being utilized, with especially good results on the Dalmatian toadflax. These bugs do not impact non-target species. Integration of the annual District noxious weed treatment regime with the OHV project design criteria for detection and treatment of noxious weed spread should be beneficial and reduce the potential for noxious weed and noxious weed treatment cumulative effects. They would be somewhat less effective at reducing the spread of other unwanted vegetation.

A reduction in roads also would reduce the ease of accessibility for weed treatment activities. However project design criteria require that weed treatments be focused on weed sites along to-be-closed roads prior to their closure. Administrative use of motorized equipment for weed treatment would still be an option after the road closure and non-motorized access is always an option, though it might be more expensive and time consuming. Design criteria will also require that the route system be inventoried for noxious weeds (and treated if found) at least twice a season. This would increase the probability of weed detection and the potential frequency of weed treatment over the current situation. This quick response and consistent treatment would likely reduce the amount of area needing annual treatment and the amount of chemical used because patches would be treated before being able to spread or grow denser over longer periods of time. This should reduce potential cumulative effects to *Calochortus macrocarpus var. maculosus* from noxious weeds, noxious weed treatment and OHV use.

There are no known Sensitive plant sites along, or within 200 feet of the route system proposed under this alternative. Therefore there should be virtually no potential for direct effects. There is a small chance that project implementation will increase the likelihood of spreading noxious weeds and other invasive weedy species. The spread of invasive species

could over time spread to and displace Sensitive plant species. Though small, this risk is in addition to the potential to spread invasive species from range management and other recreation/transportation activities occurring within the same area. Project design elements and mitigation measures (especially the route monitoring and treatment elements) will substantially reduce the potential for this project to spread invasive plant species, but do not reduce the risk to zero. Thus a determination of may impact individuals but not likely to cause a trend to federal listing or a loss of viability of *Calochortus macrocarpus* var. *maculosus* is reached for this alternative. Although this is the same determination as concluded for Alternative one, Alternative 2 is considered to be substantially less likely (a smaller “may effect”) to impact Sensitive plants than Alternative 1.

### ***Alternatives 3, 4, and 5 – PETS Plant Species***

**Direct/Indirect and Cumulative Effects** - Relative to the rare plant resources in this analysis area, the actions proposed in each of the other action alternatives do not differ measurably. As with Alternative 2, no proposed route in Alternative 3, 4, or 5 passes closer than 200 feet from the known Sensitive plants sites, and none of these alternatives omit the use of routes in their vicinity. Each action alternative proposes slightly different amounts or areas of route use, route use through known noxious weed sites, route construction, and road closures, but the overall combination of each of these elements in each alternative relative to rare plants is a wash. So the analysis of direct and indirect effects discussed in Alternative 2 would apply equally well to Alternatives 3, 4, and 5. Given that, in general, the more activity and the more potential area disturbed, the greater the chance that weedy species will cumulatively affect rare plant resources in the analysis area. From that standpoint, (of the action alternatives) only Alternative 3 differs substantially (see the alternative comparison table above) in reduction of the total amount of potential disturbance and activity that could lead to cumulative effects, but the kinds of effects would be the same as discussed for Alternative 2. None of these action alternatives reduce the potential effects to Sensitive plants to zero. Thus Alternative 3, 4, and 5 also may impact individuals but are not likely to cause a trend to federal listing or a loss of viability of *Calochortus macrocarpus* var. *maculosus*.

All action alternatives reduce the potential for impacts to rare plant resources by eliminating cross country travel, and by designating routes that can be consistently monitored. Alternative 3 would intrinsically have the least potential to impact Sensitive plants and Sensitive plant habitat, based on the level of activity (lowest) and the amount of disturbance (lowest) that could affect these plants.

### ***Existing Conditions – Noxious Weeds***

Many non-native plant species are recognized as “pests” by federal and state government agencies. These species germinate under a wide variety of conditions, exhibit early growth and establish early in the season, taking up water, nutrients and other resources that are then unavailable for desired plant species. Weedy species and especially noxious weeds often out compete and displace native species, decrease available forage, increase erosion

and run-off (less root mass than natives), decrease one’s recreational experiences (thorns and reduced species diversity), and reduced habitat for native vertebrates and soil organisms.

“Noxious weed” is a legal term, used by state and federal agencies to denote plants that pose serious threats to agriculture and wildlife. According to the Oregon Department of Agriculture, 2005 Noxious Weed Policy and Classification System, plant species are rated as either A, B or T designated weeds, based on criteria including detrimental effects, plant reproduction, distribution and difficulty of control. From there, County weed departments issue specific lists, which closely follow the Oregon noxious weed law/list, but are chosen based on environmental risk to that particular county. Status, mandatory control, enforcement procedures, and target weed treatment for those in non-compliance are included in the county weed policy.

Noxious weeds are typically prolific producers of seed, which are usually dispersed by vehicles, wind, wildlife, livestock, water, machinery, and pack animals, often for long distances. (ICBEMP, 1996). Some of the densest infestations of noxious weeds are near roads, which provide a conduit for noxious weed spread by human-related activities.

The introduction of invasive plant species into this area has resulted in numerous weed sites. Some have been eradicated, some contained so that only new germinations from the seed bed need to be treated, and a few seem to be continuing to spread. Noxious weeds are also periodically reintroduced into the planning area. The following discussion contains a description of the currently inventoried weed infestations for the high priority noxious weed species. The analysis area has not been comprehensively surveyed for noxious weeds, though much of the analysis area has received inventory work in relation to other range, vegetation, and weed management projects. It is possible that more infestations occur than are documented. Additionally, the presence of many low priority invasive plant species, such as hounds tongue (*Cynoglossum officinale*) and St. Johns wort (*Hypericum perforatum*) is extensive, and these species are not generally inventoried on the forest. Those noxious weed species targeted by Oregon and specified by the County are to receive priority treatment, and are considered “high priority weeds”. The procedures used to deter the spread and establishment of high priority noxious weeds are also effective in the deterrence of lower priority noxious weed species, which are most persistent when associated with disturbed areas such as road systems.

Inventoried noxious weed infestations in the Sled Springs Area are shown in the following table.

**Table 21 - Noxious Weeds in the Sled Springs Area**

Scientific Name	Common Name	Acres
<i>Centaurea diffusa</i>	Diffuse Knapweed	325.69
<i>Onopordum acanthium</i>	Scotch Thistle	62.96
<i>Cirsium arvense</i>	Canada Thistle	49.96
<i>Linaria dalmatica</i>	Dalmatian Toadflax	146.11
<i>Potentilla recta</i>	Sulfur cinquefoil	Inventories ongoing

Currently there are eight inventoried weed infestations (composed of several individual patches of varying size and density) within the analysis area, which are closely associated with the road systems of the Sled Springs OHV trails project under analysis. Of these, the two species of greatest concern are the diffuse knapweed and dalmation toadflax. These noxious weed species are known to occur within the project analysis area, and occupy sites which are impacted from current and proposed project activities.

According to district noxious weed records, many of the sites were discovered in the early to mid 1990's, and several sites support more than one weed species. Most of the sites have received treatment to contain and control the infestations. Treatment methods include hand pulling and spraying with herbicides. Biological control agents were released at one diffuse knapweed site along Mud Creek, located to the west of the project area. Treatments have been ongoing, and repeated for the past three to 10 years for the majority of the infestations. Once contained, a particular weed patch may take several years of treatment and monitoring before it is thought to be controlled or eradicated. Often new individuals emerge in different parts of the overall site. By the time most new weed patches are located, the chances are high (unless detected at a few plants in year 1-3) that there are already several hundreds of seeds in the soil seed bank. It can take many seasons before all the seed have germinated or become unviable.

All new invader sites will be inventoried and brought under early treatment strategies (including containment, control and eradication) as rapidly as possible. Annual monitoring will be initiated. Prevention of all seed production is required. Corrective and maintenance strategies are generally employed in established infestations because prevention of the spread and establishment of noxious farm weeds is required under State (ORS 570.505-570.600) and Federal (PL 93-629) laws. Failure to attempt to control noxious weed spread and establishment is expected to result in progressive alteration of ecosystem processes. Established infestations are inventoried and managed under appropriate integrated weed management (IWMP) strategies based on site-specific objectives, priorities, and funding availability.

### *Alternative 1 – Noxious Weeds*

**Direct and Indirect Effects** - The most direct effect of OHV use on the spread of noxious weeds is primarily related to the transfer of seed or vegetative material, caught on the machines (especially the undercarriage), tires, or caught on mud stuck to the machines or clothing worn by the riders. Indirectly, OHVs cause soil disturbance in the areas where the rubber hits the earth. Disturbed soil is highly vulnerable to noxious weed invasion as most noxious weeds are highly adapted to germination in that setting. Once established, noxious weed (or any weeds for that matter) patches can then invade and displace desirable vegetation causing a cascade of detrimental effects to the environment. Within the planning area it is clear that vehicles are one of the main vectors of noxious weed spread given the pattern of weed occurrences. The majority (but not all) of weed sites are located along the transportation system, or emanating from it. However the frequency and extent of weed spread resulting from OHVs has not been quantified.

Under this alternative, there would be no change in the threat of noxious weed spread over the current situation. Under the current situation there is a threat of spreading noxious weeds through ongoing land management actions, recreation, and wildlife. Given that weed spread is primarily related to factors of seed transfer and disturbed soil, it is expected to grow as the number of Forest users increases and as more Forest users utilize OHVs (or any OHV) for travel. OHV use can be particularly effective at launching new populations of weeds because they can move weed materials great distances, both on routes and while being trailered to other locations. They can also transport weeds to remote areas where detection is more challenging. Known noxious weed sites within the planning area, being managed under our Integrated Noxious Weed Management system, would continue to be treated based on their current priority and status. Potential weed spread from other vectors (livestock, wildlife, human activities, wind) would continue. These vectors are currently intersecting existing weed patches at arbitrary (and un-quantified) intervals, sometimes spreading seeds to new spots. Occasionally Forest users and permittees report new weed patches. Sometimes new weeds are transported into the planning area from external sources. Wind frequently carries seed to new areas in search of disturbed ground. Effects from the non-implementation of this action are somewhat diffuse.

OHV use levels in the planning area have not been quantified. Though observationally, it appears that OHV use is growing steadily, use levels within the planning area are considered relatively low with the exception of hunting seasons. Similarly, across the District OHV use is being seen as increasing, and with it, increasing areas of soil disturbance. This trend would likely continue under this alternative. Currently off-route OHV travel is not restricted, nor is OHV use restricted to any particular set of routes. Thus there is currently an unregulated and un-quantified threat of OHVs spreading weeds cross country as well as through the old road system within the planning area. In the long run it is probable that the amount of ground disturbed by OHVs under this alternative would be larger than that in the action alternatives. By not designating routes this alternative does not contain the area disturbed to the same degree as the action alternatives, nor does it provide for additional monitoring, road closures, road decommissioning (temp. increase in disturbance) and road rehabilitation. The greatest opportunity for weed spread is along travel ways (roads and user-created trails). The greatest consequences of noxious weed spread may be that more remote terrain, accessed by off route travel, is infected. There, detection is more difficult, less likely and more delayed. This often results in noxious weed patches that are larger and tougher to control (more costly and more time consuming), and that act as source populations for additional spread.

Under this alternative, OHV use would not be contained, nor would OHV routes be designated. Route and off route use would continue. Detection, prevention, and treatment mitigations associated with the action alternatives would not be specifically implemented. Funding and persons would not be specifically directed toward monitoring specific routes for weed detection and treatment. Thus there would be fewer opportunities (person-days) for detection of new infestations. There would also be less travel ways (roads) closed, so in the long run there would be more (potentially) disturbed ground left untreated. However, it is also probable that the growth in OHV use within the planning area under this alternative would be slower and ultimately smaller (albeit less contained) than with the alternatives that develop a sanctioned, advertised and state-affiliated trail system. A difference in the weed-spread-threat under these two scenarios can not currently be

quantified. However it is probable that unregulated OHV use poses a greater chance of spreading weeds than the alternatives focusing use into a set of routes that can and will be looked after - even under the expected increases in overall use levels.

**Evolving Baseline Condition** - Other future Federal actions (ie. Vegetation management, special-use permits, road maintenance) would continue to undergo site-specific analysis, design, and mitigation for avoidance, detection, or treatment of noxious weeds. This would act to minimize (though not eliminate) their contribution to potential cumulative effects of spreading weeds. Recreation activities would continue at their present level or increase with increasing human population trends. Livestock management would continue to contribute toward the spread of weeds but prevention and detection measures, particularly from recent Regional amendments to the Forest Plan (USDA 2005), have been included in their annual operating plans, and would act to temper this risk. Many range permittees also are well versed in detecting and reporting noxious weed patches. This also helps temper the threat of livestock providing for noxious weed spread. Cumulative effects are the incremental impacts of the proposed action when added to other past, ongoing or reasonably foreseeable future action. Because OHV management would no longer happen, it would not be added, and thus would not contribute toward potential cumulative effects. Unmanaged OHV use would add to potential cumulative effects to the spread of noxious weeds even though the degree of effect is currently difficult to quantify.

#### *Alternatives 2, 3, 4, and 5 – Noxious Weeds*

**Direct/Indirect Effects** - This section describes the effects of implementing alternatives in relation to the spread of noxious weeds. The mechanisms of weed spread and consequences of weed establishment are the same as that discussed in Alternative 1. The risk of noxious weed spread and establishment due to the various activities under analysis may be influenced by a combination of factors, including type of activity (intensity), proximity to a source and vectors for dispersal (risk), size of the area affected (magnitude), and reclamation time - from disturbance to vegetative recovery (duration). The most tangible factors in evaluating the effects of this project on the spread of noxious weeds (and the consequences of noxious weed spread) are the amount of ground disturbed, the chances of off route travel, the locations of the weed patches relative to travel ways, and the ability to mitigate undesirable effects.

The following activities considered within this analysis include (1) new construction of connector (loop) OHV trails, (2) road closures, and (3) conversion of existing roads to OHV use only. Other related ground-disturbing activities include development of two staging areas for parking (one staging area for Alternative 5), and toilet/camping facilities at the site on Highway 3.

The following are roads scheduled for closure and support documented roadside noxious weed infestations:

3025-215	3025-223	3030-040	3030-055,	3030-074,	3030-075
3030-078	3030-085	3030-105	3030-123	3030-124	3030-125
3030-126	3030-135	3030-136	3030-137	3030-149	3030-151
3030-141	3030-153	3030-167	3030-169	3030-173	3035-353
3035-045	3040-061	3040-223	3040-271	3040-357.	

Under Alternative 2, 61 miles of road would be closed to all vehicle use.

Under Alternative 3, 96 miles of road would be closed to all vehicle use.

Under Alternative 4, 80 miles of road would be closed to all vehicle use.

Under Alternative 5, 83 miles of road would be closed to all vehicle use.

The use, maintenance, and/or closure of these roads poses a serious threat of exacerbating the roadside weed sites and spreading the noxious weeds because of the ground disturbing nature of this work. To mitigate this risk, careful monitoring of these sites post treatment will need to occur as there are likely many viable seeds lying dormant in the soil. Restoration work should be designed to retard noxious weeds, thus reducing potential cumulative effects by reducing the amount of disturbed ground.

Many of the roads proposed for conversion to OHV use only, pass through known noxious weed sites or adjacent to noxious weed locations. Although use of these roads by full-size vehicles would not occur, there is expected to be an increase in use by OHVs, which are just as effective at spreading the noxious weeds beyond their current location. The following roads are scheduled for OHV use only under the proposed analysis:

3025-215	3025-223	3030-074	3030-075	3030-076	3030-078
3030-085	3030-105	3030-125	3030-127	3030-135	3030-141
3030-145	3030-151	3030-155	3030-163	3030-171	3030-215
3030-451	3040	3040-455	3040-025	3040-030	3040-053
3040-045					

71 miles of road would be converted to OHV use only under Alternative 2

54 miles of road would be converted to OHV use only under Alternative 3

64 miles of road would be converted to OHV use only under Alternative 4

60 miles of road would be converted to OHV use only under Alternative 5

The treatment status of the noxious weed sites along these OHV-use-only roads would be a high priority for tracking, monitoring, and treatment. Careful monitoring, post treatment, will need to occur as there are likely many viable seeds lying dormant in the soil. Mitigations designed into the alternatives to minimize the risk of noxious weed spread, and increase the effectiveness of treatments are listed in Chapter 2.

Due to the close proximity of most weed infestations to the road systems there is the potential for motorized recreational use to continue to spread weeds. OHVs travel great distances in a short amount of time and can accumulate weed seed in their tire treads, undercarriage, and in mud/soil stuck to the machine. The noxious weed species of greatest concern for this analysis are the diffuse and spotted knapweed and dalmation toadflax



because the potential for these weed species to spread is high. They are prolific seed producers. Their seeds stay viable in the soil seed bed for a long time. Knapweed seeds easily attach to machinery, mud, and clothing by the small spinney comb-like bracts on the seed heads. Toadflax seeds are small, smooth and granular and stick to machines, mud and clothing. Thistle seeds have a plume of small hair-like structures that allow them to travel with the wind or cling to surfaces in search of disturbed ground where they can germinate or lay dormant.

Soil movement and disturbance associated with new trail construction and road closure activities does pose a potential to spread noxious weeds in these areas of disturbance. Disturbed ground is more vulnerable to noxious weed colonization than intact vegetation. A proportion of this disturbance would be short lived as rest and restoration processes provide for re-vegetation of closed roads, decommissioned roads and off route trails. The terrain directly in the wheel tracks is not going to support any vegetation but the ground along the margins of the wheel paths (routes) would be the area at most risk of increased weeds.

Implementation of any of the action alternatives would greatly reduce the potential for, and amount of, cross-country travel and user-created trail development. This reduces the potential for weed spread. It also significantly reduces the amount of, and potential for, disturbed ground. The action alternatives also reduce the amount of roads overall that are available for recreational uses. Thus the direct, indirect, and cumulative effects of establishing an OHV trail system are reduced as compared to the existing situation.

Of the routes that would be designated, it is expected that there would be some increase in the degree of weed spread along those courses as a consequence of higher use resulting from focusing use on designated routes and administering those routes as part of a national system. Mitigation measures designed into the alternatives should help reduce some of the potential weed spread. Particularly, the requirement to monitor and treat route-associated weed patches should soon be able to match the new potential rate of spread. Increased enforcement and self policing associated with route designation should also add strength to the mitigation measures.

**Cumulative Effects** – The majority of the noxious weed sites occur along roads, where they are spread via many actions, not just those associated with an OHV trail project. Noxious weeds can be spread by several activities. Vehicle or equipment use of any kind has the potential to spread seeds from site to site. Ground disturbance of any kind provides a likely seedbed for noxious weeds. There is a strong potential for animals to spread seed, but probably to a lesser extent than vehicles given the mobility of each. The Forest service has no control over the numbers or movement of wildlife, though overall fewer miles of motorized routes would be open after project implementation than currently, so some change in wildlife movements is expected, but it is not clear how this would affect their spreading noxious weeds other than there should eventually be less disturbed ground for the seeds to find as home. This project is not expected to measurably change the amount of wildlife residing within the planning area, so their contribution to cumulative effects would be little more than the existing condition.

Other future Federal activities (such as vegetation/fuels management, special-use permits, road maintenance) routinely undergo site-specific analysis, design, and mitigation for

avoidance, detection, and treatment of noxious weeds, as well as revegetating areas of ground disturbance. These actions act to minimize (though not eliminate) the contribution to the potential cumulative effects of spreading weeds. Landscape-scale burning has the greatest potential to exacerbate the growth and spread of noxious weeds and would contribute the most risk to the spread of noxious weed. These projects too are planned to try to avoid known noxious weed infestations but unknown patches may exist within a planning area or new seeds may get tracked in post-fire. Weeds tend to be very adapted at taking advantage of the thermal disturbance fires apply to the ground. Often, under prescribed and wildfire scenarios, the fire intensity and duration is not enough to consume the noxious weed seed heads nor kill the parent plants.

Currently, the Forest Service has a noxious weed program to inventory and treat both existing, and newly discovered noxious weed infestations. This activity reduces the cumulative effects of the potential to spread weeds regardless of the source action.

The Federal action with the most potential to cumulatively effect the spread of noxious weeds would be the issuing and administration of livestock grazing permits. Livestock management would continue to contribute toward the spread of weeds. The seed or vegetative materials are transported via their fur, digestive tract, and mud in their hooves. Livestock trucked into permitted areas from outside the forest are especially prone to transport weeds from foreign locations. Some ground disturbance is also expected with the trailing of livestock. Enforcement of LRMP standards and proper administration of the grazing permits would reduce this threat. Prevention and detection measures, particularly from Regional amendments to the Forest Plan from the recent Regional Weed EIS (USDA 2005), will be included in the permits annual operating plan and would act to temper this risk. Many range permittees also are well versed in detecting and reporting noxious weed patches and are frequently on the permitted ground. It is probable that OHV route designation would influence the movements of livestock (and wildlife) as the herds adjust to the changes in open and closed travel ways. Though the impacts of livestock spreading weeds may be tempered by operating standards and administration, the threat is not eliminated. So some level of cumulative impact is to be expected but cannot be quantified. The overall numbers of livestock running in the permitted areas that overlap the OHV route (analysis area) are not going to change, so the contribution of cumulative effects from livestock would not be expected to change much over the existing situation.

Non-motorized recreation activities would continue at their present level or grow with increasing interest in this area resulting from route use and increasing human population trends. There are no designated non-motorized trails or campgrounds in this area so use increases would likely be small outside of motorized activities and hunting seasons.

There is an interactive cumulative effect related to the potential for noxious weeds to spread to and from different land ownerships and to areas far away. This is unique to OHVs and motorcycles because weed seeds can stick to them, then the OHV or motorcycle is often moved long distances either in the back of a pickup or on a trailer. If the OHV or motorcycle is not cleaned, there is a potential for it to drop seeds far away from the population where it picked up the seeds. Alternative 1 would not change this situation. Through the designed mitigations, Alternatives 2, 3, 4, and 5 would limit the potential for noxious weed seeds to be transported into remote areas (off route) of the Forest. This would be particularly beneficial because remote areas are less likely to be effectively patrolled for

noxious weeds and treated. There would only be a little change to the seed spread from the Forest to other areas and vice versa under any of the alternatives.

The prescribed mitigation measures designed into the action alternatives would reduce the potential direct, indirect, and cumulative effects on the spread of noxious weeds. Public education over time could lead more OHV users to clean their vehicles more often, which would lessen the problem. Consistent and frequent route monitoring and treatment would reduce the ability of the noxious weeds to spread. The cleaning, prevention, and restoration measures would reduce the potential to introduce new noxious weeds or spread existing patches.

## Roadless Resources

### *Existing Conditions - Roadless*

The Tope Creek Roadless Area is within the Sled Springs Area. This roadless area is 8,674 acres in size and was considered in the Forest Plan (Appendix C, Page 49) for wilderness potential, with the conclusion that its narrow, relatively small sized, irregular configuration and many miles of boundary, make its manageability for wilderness difficult. An existing unauthorized road (3030-179) out Washboard Ridge enters the roadless area for approximately 1 mile. The road is currently used by OHV riders.

### *Alternative 1 – Roadless*

The road out Washboard Ridge (3030-179), as well as other relatively gentle terrain within the roadless area would continue to be used for OHV travel.

### *Alternatives 2, 3, 4, and 5 – Roadless*

With implementation of the OHV trail system, none of the designated trails would be located within the Tope Creek Roadless Area. Since off-trail use would not be allowed, further entry into the roadless area by OHV use would be prohibited. All of the newly constructed OHV connector trails would be located well outside of the roadless area or its adjacent unroaded areas. Implementation of these alternatives would have no adverse direct, indirect, or cumulative impact on the unroaded character of the Tope Creek Roadless Area as defined by the Forest Plan (Appendix C, Page 49).

## Specifically Required Disclosures

This section contains disclosures of effects that are required by federal law, regulation, policy, or Executive Order.

### *Other Specifically Required Disclosures*

**Cultural Resources** – Cultural resource inventories within the Sled Springs Area identified cultural resource sites and isolated occurrences. Any areas for potential ground disturbance were inventoried, and trail locations were changed if needed to avoid areas where cultural resources occur. A report on the proposal was prepared in accordance with the Programmatic Agreement between the Oregon State Historic Preservation Office and the Forest Service. A determination was made for “Historic Properties Avoided”. Under the Programmatic Agreement, the report and determination was forwarded to the State Historic Preservation Office, and no further consultation is needed under this type of determination.

**Relationship Between Short-Term Use and Long-Term Productivity** – The areas dedicated to OHV trail use under Alternatives 2, 3, 4, and 5 would receive regular compaction, thereby precluding long-term soil productivity. However, these areas would be identified ahead of time and would focus OHV use to specified areas rather than the current situation where OHV use occurs without restriction.

**Irreversible and Irretrievable Commitment of Resources** - There are no irreversible or irretrievable commitments of resources associated with implementing the alternatives that are not already identified in the FEIS for the Forest Plan.

**Potential Conflicts with Plans and Policies of Other Agencies** - Implementation of the alternatives would not result in conflicts between the provisions of the proposed activities and any goals or objectives developed for other government entities. All alternatives are consistent with water quality objectives for the area that have been identified in draft versions of the Wallowa County Total Maximum Daily Load analysis currently being prepared by the Oregon Department of Environmental Quality. In addition, the Wallowa County – Nez Perce Tribe Salmon Habitat Recovery Plan allows for recreation uses so long as salmon habitat recovery is being accomplished. As described in the aquatics section, greater protection of salmon habitat is provided by the controls contained in Alternatives 2, 3, 4, and 5 than in Alternative 1.

**Tribal Treaty Rights** - Certain rights and privileges are afforded members of the Nez Perce Tribe and the Confederated Tribes of the Umatilla by virtue of the treaties of 1855. These treaties resulted in cession by the Indians to the United States of a large territory which includes approximately two-thirds of what is now the Wallowa-Whitman National Forest. The Sled Springs Area is within ceded territory for the Nez Perce Tribe and is within territory traditionally used by the Confederated Tribes of the Umatilla. The treaties provide that the Indians will retain the rights of taking fish in streams running through and bordering the reservations and at all other usual and accustomed stations in common

with other citizens of the United States and of erecting suitable buildings for fish curing; the privilege of hunting, gathering roots and berries, and pasturing stock on unclaimed lands. All of the alternatives provide the opportunity for Indian tribes to assert these treaty reserved rights. Particular coordination with the Nez Perce Tribe occurred prior to developing the proposed action and during the process of completing this Environmental Assessment. Refer to the analysis file for a chronology of these coordination efforts.

**Prime Farmland, Rangeland, and Forestland** - Adverse effects on prime farmland, rangeland and forestland not already identified in the FEIS for the Forest Plan are not expected from implementing the action alternatives.

**Energy Requirements** - There would be no unusual energy requirements for implementing any of the alternatives.

**Threatened or Endangered Species** – Effects on Threatened and Endangered species were determined through the preparation of Biological Assessments/Evaluations (refer to the analysis file). For species with potential or known habitat within the analysis area, a determination of No Effect was made, with the exception of effects on summer steelhead. The determination of effect for summer steelhead and its Designated Critical Habitat was May Affect, Likely to Adversely Affect. The Biological Assessment that documented this determination was submitted to National Marine Fisheries Service and the US Fish and Wildlife Service for review. These reviewing agencies submitted comments on the Biological Assessment which were incorporated, and a final Biological Assessment was submitted in March 2006. Because a determination of No Effect was made for all species other than summer steelhead, only National Marine Fisheries Service was obligated to formally respond to the Biological Assessment. A Biological Opinion prepared by National Marine Fisheries Service and dated September 15, 2006 was received, documenting concurrence with the determination for summer steelhead. Terms and conditions were prescribed by the Biological Opinion, and have been incorporated into the alternatives in this EA. The Biological Opinion also documented completion of consultation under the Magnuson-Stevens Act.

**Wetlands and Floodplains** - Refer to the analysis of effects on aquatic resources. Jurisdictional wetlands and floodplains occur within the Sled Springs Area. As described, the effects of implementing Alternatives 2, 3, 4, or 5 would not increase effects on wetlands or floodplains beyond the existing situation.

**Civil Rights, Women, Minorities, and Environmental Justice** - Executive Order 12898 directs each Federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The President also signed a memorandum on the same day, emphasizing the need to consider these types of effects during NEPA analysis.

On March 24, 1995, the Department of Agriculture completed an implementation strategy for the executive order. Where Forest Service proposals have the potential to disproportionately adversely affect minority or low-income populations, these effects must be considered and disclosed (and mitigated to the degree possible) through the NEPA analysis and documentation. The alternatives are not anticipated to adversely affect

minority or low-income populations.

**Public Safety** – While OHV riding can be a dangerous activity, all of the action alternatives considered trail design features to create an environment that minimizes safety issues. The action alternatives would improve the situation regarding safe use of OHVs by designating a specific trail system, which is designed for the use, while eliminating off-trail travel.





## **Chapter 4 – Agencies and Persons Consulted**

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### **Scoping Participants**

The following list contains names of participants during the scoping period, who also received a copy of the Environmental Assessment for review and comment.

#### **Federal, State, and Local Government**

City of Enterprise  
Oregon Department of Fish and Wildlife  
Wallowa County Natural Resources Advisory Committee

#### **Organizations**

Capital Trail Vehicle Association  
Hells Canyon Preservation Council  
Northwest Access Alliance  
Oregon Wild  
Oregon Recreation Coalition  
Public Lands Council  
Wallowa Valley Trail Riders Association  
Wallowa Resources

#### **Individuals**

Tom Crimmins  
Janet Homan  
Skye Krebs  
Duke Lathrop  
Doug McDaniel  
Donald Morrow  
Millie Read  
Oliver Wentz  
Leon Werdinger  
Bill Wirth

#### **Tribes**

Rick Christian, Nez Perce Tribe  
Mike Lopez, Nez Perce Tribe  
Joe McCormack, Nez Perce Tribe  
Angela Sondanaa, Nez Perce Tribe  
Ryan Sudbury, Nez Perce Tribe

## **Preparers**

The following agency personnel participated in the preparation of the Environmental Assessment:

Ken Bronec	Fisheries Biologist
Jim Gilsdorf	Acting Wallowa Valley District Ranger
Alicia Glassford	Interdisciplinary Planner
Rob Gump	Recreation Specialist
Jerry Hustafa	Botanist and Weed Coordination
Alan Miller	Fisheries Biologist
Dana Nave	Hydrologist
Mark Penninger	Wildlife Biologist
Teresa Smergut	Range Management Specialist
Barbara Van Alstine	Former Wallowa Valley District Ranger

## Appendix A – Issue Tracking Sheet

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Issues were considered by the Interdisciplinary Team and characterized as key issues or other issues. Key issues are listed in Chapter 1 of the analysis, and other issues are listed below. The following tracking sheet shows where in the Environmental Assessment the other issues were addressed.

<b>Issue Statement</b>	<b>Source of Issue</b>	<b>Response</b>
Aquatic and wildlife resources	Brett Brownscombe, HCPC, 5/18/05 letter	Addressed in Chapter 3, Aquatic Resources and Wildlife Resources
Range operations	Skye Krebs, Krebs Ranches, 5/17/05 letter	Addressed in Chapter 3, Issue 5 and Chapter 1, Public Involvement
Road closure effectiveness	Janet Homan, 3/15/05 letter	Addressed in Chapter 2, Alternatives
OHV riding opportunities	Ken Sato, Capital Trail Vehicle Association, 6/17/05 letter	Addressed in Chapter 1, Purpose and Need and Chapter 3, Recreation Resources
Specific trail design	Heath Williamson, Wallowa Valley Trail Riders Association, undated letter	Addressed in Chapter 2, Alternatives
OHV riding opportunities	Tom Harris, Oregon Recreation Coalition, 3/1/05 letter	Addressed in Chapter 1, Purpose and Need and Chapter 3, Recreation Resources
Roadless, aquatic, and wildlife protection	Chandra LeGue, Oregon Natural Resource Council, 3/15/05 letter	Addressed in Chapter 3, Roadless Resources, Aquatic Resources, and Wildlife Resources
Letter of support	Irv Nuss, Mayor of Enterprise, 3/3/05 e-mail	Will be considered by Deciding Official
Road closures effectiveness	Leon Werdinger, Joseph, Oregon, 3/1/05 e-mail	Addressed in Chapter 3, Aquatic Resources and Wildlife Resources and Chapter 2, Alternatives
Noxious weed spread	Doug McDaniel, Lostine, Oregon, 2/23/05 letter	Addressed in Chapter 3, Botanical Resources and Chapter 2, Mitigation and Monitoring
Perennial stream crossings	Brad Smith, Oregon Department of Fish and Wildlife, 3/25/05 letter	Addressed in Chapter 3, Aquatic Resources
Big-game conflicts	Pat Matthews, Oregon Department of Fish and Wildlife, letter	Addressed in Chapter 3, Issue 3 and Wildlife Resources

<b>Issue Statement</b>	<b>Source of Issue</b>	<b>Response</b>
OHV riding opportunities and recreation conflicts	Bill Wirth, Pendleton, Oregon, 3/16/05 telephone conversation	Addressed in Chapter 3, Recreation Resources
OHV Trail Riding Opportunities	David Vig, Northwest Access Alliance, 3/3/05 letter	Addressed in Chapter 3, Recreation Resources
Salmon Plan consistency and project viability	Wallowa County Natural Resources Advisory Committee, 5/25/05 letter	Addressed in Chapter 3, Aquatic Resources and Chapter 2, Alternatives
Range operations	Jeff Eisenberg, Public Lands Council, 8/24/05 letter	Addressed in Chapter 1, Public Involvement

## References

### Botanical Resources

Oregon Natural Heritage Program. 1998. Rare, Threatened and Endangered Plants and Animals of Oregon. Oregon Natural Heritage Program, Portland, Oregon.

U.S.D.A. Forest Service. 2004. R - 6 Regional Forester's Sensitive Species List, updated July, 2004.

United States Department of the Interior, Fish and Wildlife Service, 2005. Reference #1-7-050SP-0154, Federally Listed and proposed Endangered and Threatened Species, Candidate Species and Species of Concern that may occur within the area of the Wallowa-Whitman National Forest Project,

### Aquatic Resources

Dunne and Leopold. 1978. *Water in Environmental Planning*. W. H. Freeman and Company. New York.

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## **Appendix B - Comments and Responses**

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Copies of the Environmental Assessment were distributed for a 30-day public review period. A total of 21 comments were received from agencies, organizations, or individuals during the comment period. The text of these comments is provided below along with an agency response in italics. The comments are arranged under the headings of 1) Project Design, 2) Environmental Effects, 3) Analysis Process, and 4) Support for or Opposition to Alternatives. Additional comments were received after the comment period and were considered by the responsible official prior to issuing a decision. However, responses to those later-arriving comments are not included in this appendix.

### **1. Project Design**

#### **Trail System Logistics**

We strongly disagree with development of a play area for OHV's. [ODFW, Wildlife]

***Confined play areas designed in locations that minimize resource damage (with this project, in a rock pit several acres in size) provide OHV users with an opportunity to play, part of the experience OHV riders seek. Part of a design feature with this project is to create a system that is enjoyed by the OHV users, thereby reducing pressure for unauthorized activity in other locations on the Wallowa-Whitman National Forest.***

Season of use should not occur during traditional fall hunting seasons, and should close 3 days prior to archery season. [ODFW, Wildlife]

***Season of use is an issue addressed through Alternative design. Alternative 4 allows use during the hunting seasons, providing for the longest season of use of the action alternatives. Alternative 5 refines this period further. This additional time allows for the best enhancement for the recreational opportunity. Providing for an enhanced recreational opportunity is a part of the purpose and need for the proposal. In light of the National OHV rule and the direction to restrict cross-country travel in the near future, providing one location in Wallowa County area for motorized use is seen as desirable. Providing this experience in a shortened season with a closure during the hunting season is viewed as restricting the recreational opportunity.***

Pat Mathews from the Oregon Department of Fish & Wildlife strongly encouraged FS to designate a season of use of July 1 to 3 days prior to archery season, for the protection of



the critical fawning and calving season. Under Alternative #4, there could be OHV use in any month of the year or all year long if the conditions were dry and less than 12 inches of snow. There should be a specific season so that wildlife, hunters, permittees, and the other users of the Forest know when OHV users will be allowed. A specific season will also help the United States Forest Service (USFS) in providing a police presence during the OHV season. Funding could be obtained for a given season instead of an undefined period such as, "dry conditions until 12 inches of snow." [PLC and permittee]

***Even though there is not a defined season with known dates, other users of the National Forest can expect that the area will be used as an OHV trail when the ground conditions are dry enough. This approach to allow use of a motorized trail system has been successfully used by other National Forests in Region 6. Funding for law enforcement and educational efforts has been very successful for an approved trail system through the Oregon State Parks and Recreation department.***

There should be a limit on how many riders can be on the trail on a given day and party size limited to a reasonable number. In particular, number of riders should be limited during sensitive periods of the year for wildlife and livestock. This could be handled by the OHV coordinator through a permit system. Limiting OHV participants would also help in law enforcement. OHV users would have to apply for a permit, show a license, and also where they will be camping and riding. [PLC and permittee]

***OHV Trail systems managed with State OHV funds on National Forest System lands have party size limitations. However, the most effective way to manage number of riders is through Staging Area design in the number of parking spaces available. If through monitoring, the number of OHV users in the Sled Springs area is seen as excessive, then further restrictions through party-size limitations can be put in place. In conferring with other managers of OHV Trail systems and with the State Parks and Recreation personnel, it is not anticipated that large number of users will be attracted to this small of a trail system.***

We do not think it is unreasonable to require OHV users to have a permit stating the days and area they will be on the trails, pay a small fee, and register at the Visitor Center. These and other ideas are necessary to research before progressing forward with the OHV proposal. [PLC and permittee]

***Currently, OHV users across the State of Oregon are required to pay a fee to ride their OHV. The funds generated through this requirement are then made available for development and maintenance, as well as education and enforcement of the OHV trail systems around the State. Some Region 6 National Forests charge an additional fee for OHV users to use their trail system; however, it is not anticipated that additional fees will be charged for OHV users for riding the Sled Springs OHV Trail system, as long as adequate funding is provided from the State OHV Fund.***

**A 'use-permit' that allows monitoring of the number of users is possible. A similar system is in place for visitors to Eagle Cap Wilderness; this system does provide useful information on where visitors are from, where they go in the Wilderness, and the average length of stay.**

If the Sled Springs Trail Proposal is to happen, it should be under a trial basis only, and reviewed after a given period of time for evaluation. [PLC and permittee]

**The trail system will be constructed in stages, as it is not possible to construct the entire system in one snow-free season.**

I do not see that your use data can justify the addition of the proposed number of miles of 'easy' difficulty level. I would like the trail system compliment other systems in the area in terms of a mix of difficulty levels. Riders become bored with familiarity and no challenge then they will develop their own challenges. [LeBold]

**The local Wallowa Valley Trail Riders Association have been working with Wallowa Valley Ranger District on what type of trail system they, as users, would like to see. In addition, Oregon Parks and Recreation officials who are experts in OHV trail systems have been consulted with review of the proposed area and discussions on trail design elements. Through these efforts, the design of the trail system is intended to meet the local need and demands for an enjoyable recreational experience.**

I believe the current thought by many OHV recreation developers is that development of a linear OHV system of this size both in miles and acres would be considered to be unmanageable without a disproportionate budget allocation for law enforcement. [LeBold]

**The design of this trail system is intended to provide an enjoyable riding experience for weekend-type duration—roughly 50 miles per day. Along with implementation of a trail system of this size will be a considerable investment in adequate signing, education, and enforcement. As stated previously, funding for law enforcement and educational efforts has been very successful for an approved trail system through the Oregon State Parks and Recreation department.**

Cost-effective analysis is essential for prudent consideration of a system this large when attempting to provide the length of season that is being proposed. The expense of providing an all weather trail system of this size for the limited number of riders interested in 'easy' difficulty level and the costs of law enforcement and noxious weed monitoring will be difficult to justify. [LeBold]

**Although a 'cost-effective' analysis as described by the commenter was not done,**

***the selected alternative will not be an 'all weather' trail system. The trail system will be closed to use when wet conditions exist that would damage the trail tread. Alternative 5 introduces trigger monitoring to determine when wet soil conditions exist and the trail system should be closed. The costs associated with developing and managing the trail system (including law enforcement) will be through funding provided from the State OHV Fund. The Oregon State Parks and Recreation through the Oregon Trials 2005-2014: A Statewide Action Plan (February 2005) identify a need to establish a motorized trail system in the Northeast Region of the State of Oregon.***

. OHV rider use after Labor Day is a mere fraction of the June-August use period and I don't think we have any trail systems in the area of the Umatilla or Wallowa-Whitman N.F. that can show a different trend. The assessment talks to monitoring soil conditions to allow extended season riding; I believe this to be unnecessary and a profligate use of operation funds. [LeBold]

***The selected alternative will be closed for the duration of the bow season (3 days prior to the start of the season through 3 days prior to the start of the buck season near the first of October). The fall season of use will really be limited to about a 4 week season, depending on the snow season. The local club of OHV riders has provided their input to have the season available to ride. In addition, the State OHV allocation committee has expressed concern for funding a shortened season of use (June through Labor Day, for example).***

A system of this size would benefit by phase development. The unique characteristics of the area riders will become evident and you will have the ability to adapt as the system evolves. This is necessary in order to prevent the embarrassment of over building and under utilization as in the instance of the La Grande/N. Frk. John Day systems. [LeBold]

***The trail system will be constructed in stages, as it is not possible to construct the entire system in one snow-free season. The overall size of the trail system was designed for users to ride within a weekend. The trail system will not be over built for the users; generally comments from proponents call for more miles of trails than is identified in the selected alternative.***

OHV systems are very costly to construct and operate properly. Operating the system in a professional manner will demonstrate the effectiveness of proper maintenance, noxious weed monitoring, and law enforcement. OHV systems will only continue to exist if can maintain credibility with the OHV allocation committee, publics, and the riders. [LeBold]

***The success of this trail system will be through proper engineering, education and enforcement; all of which has been acknowledged in the Environmental Analysis as not possible without continued adequate funding from the OHV allocation committee.***

I do note that OHV seems to be comprised of Class I & III vehicles and Class II (4WD) is considered quite apart. Your 74 miles seems to be more of a consideration of local woodcutting, hunting, etc. than 4WD trail. With 84 miles of road I would think it not too difficult to offer some challenge loops for 4WD that would reconnect with your full-size roads. [ORC]

***The design of this system does focus on Class I and III vehicles, and does not preclude designing Class II vehicle trail systems in the future. The purpose and need for this action in designing for Class I and III vehicles was precipitated from comments received from primarily local users associated with the Wallowa Valley Trail Riders Association, as well as Oregon Trails 2005-2014: A Statewide Action Plan issued by Oregon State Parks and Recreation Department.***

Challenge need not include mud bogs or damaging hill climbs, nor do we subscribe to them, but could contain short stretches of rock strewn terrain\_ either natural or constructed. Possibly you don't have organized 4WD expertise locally to confer with. Most managers are concerned about the antics of the unorganized full size users. We call that the "bubba factor" and resent being painted with that stigma. [ORC]

***Please refer to the comment above: the design of this system does focus on Class I and III vehicles, and does not preclude designing Class II vehicle trail systems in the future.***

Also, I believe that ignoring the needs of this group will not solve your problem, and may even jeopardize the protection you are trying to address. As your time schedule indicates, there is still time to consider a few alternative diversions for the full size Class II folk. [ORC]

***Please refer to the comment above: the design of this system does focus on Class I and III vehicles, and does not preclude designing Class II vehicle trail systems in the future. However, the amount of analysis that has already been done does, at this time, preclude additional alternative development for Class II vehicles.***

Pertaining to trail closures, I recommend only closing the section that is of concern, if we get a really wet summer or spring, with most of the trails being on established roads. The impact from wet weather would be minimal, if *only* the worst areas of the new trail were closed, until conditions improved. [WVTRA]

***Trail closure management will be specific, and depending on conditions and the type of trails, may include the entire trail system or a specific trail segment.***

I would like to comment on campers' and hunters' access to an area known as Camp 10. Camp 10 is at the junction of USFS roads 187, off of Hwy 3 just past mile post 21, and

USPS road 193. This is all in Township 25 on the left side of Hwy 3. Presently, you have 1/3 mile of road 193 open to everyone, and road 185, access from Hwy 3, closed. FS road 193 is barely a single ATV width, while FS road 185 is a wide, easily accessed, and maintained gravel road. This area is a favorite camp site for locals with camping room for 2 to 3 groups. To open FS road 193 would cost a considerable amount of time and scarce resources, which makes no sense when FS road 185 is a solid-rocked road that needs little or no upkeep. [WVTRA]

***The road closure in question was an error in mapping within the analysis, and has been corrected with the decision notice. FS road 185 will remain open to Camp 10, while FS road 193 will be closed.***

What is the 12" of snow cut off based on? Elk science? Arbitrary numbers? Do you wish to prevent any snowmobiling in this area? [WVTRA]

***The snow depth came from other Region 6 trail systems managed through resource triggers such as soil conditions. The intent of this trigger is the amount of moisture is likely enough to place the trail system in a 'too wet' condition.***

Is the depth going to be a base of 12" or after the first 1' of snow falls? I was at the proposed staging area at the gravel pit off of Hwy 3 Saturday, April, 14th and it snowed nearly to" that day. I just want to make sure a foot of snow in September doesn't shut us down completely, since it will most likely be gone in 2 days and stay good until November or December. [WVTRA]

***Please refer to the comment above: as long as the trail is dry enough to ride, then the riding opportunities will continue.***

Signing is mentioned on page 40. Proper signing will be a great educational tool. Signing will help safety concerns and increase enjoyment of the area. Some examples of signing are.

1. Signs should be placed on Forest roads that could have two-way traffic.
2. The main trail loops should be named and signed.
3. Short trail spurs should be numbered and signed.
4. View points and points of interest should be signed [WVTRA]

***The Environmental Assessment states that common to all action alternatives that trail-layout would include adequate signs. Adequate signing of the trail system was not extensively discussed in the Environmental Assessment, but is integral to a well-designed trail for a number of reasons, including safety and compliance. The outline of suggested examples will be done, as well as any other signing needs necessary to have a well-functioning trail system.***

Two areas with fine viewpoints were omitted by including two moderate quality elk security areas. This was done late in the planning stage without any open discussion concerning this issue. [WVTRA]

***As the environmental process evolves, alternative(s) developed to address the issues may modify what is in the proposed action. What has developed as the preferred alternative does not include the viewpoints mentioned in order to offer elk security areas within the alternative. However, the proposed action, Alternative 2, does contain the viewpoints.***

### **Enforcement**

Good intentions are simply inadequate to prevent resource degradation. The Forest Service lacks the resources to enforce rules of proper OHV use. Establishment of illegal trails and stream crossings are and will continue to be problems. [ONRC]

***We recognize that the proposal requires enforcement to be successful. We added a monitoring measure on Page 23 of the EA which better describes the intended monitoring and enforcement associated with the position referred to as the OHV Trail Coordinator. We also have incorporated a permit system into Alternative 5 which will increase our ability to inform users and track violations.***

There is no proposal to increase law enforcement with this project. Presently law enforcement is woefully inadequate on the WWNF and this project would make it worse unless more enforcement is put in place. The illegally user-created trails are just one example of the growing problem. Closing roads without increased enforcement will effectively not close the roads. Assuming that ORV users would no longer illegally create trails if this proposed trail system is in place is naive at best. Thinking that cross country travel will stop after this project is done is also naive. [HCPC and Sierra Club]

***As described in the preceding response to comment, we recognize that the proposal requires enforcement to be successful. We added a monitoring measure on Page 23 of the EA to address this and have incorporated a permit system into Alternative 5 for increasing our ability to inform users and track violations.***

On page 13 (Key Issue 3) it states that the high level of disturbance to elk would be for 4 months, while table 9 (p 27) indicates 5 months (May-October). This season of use would not include the moderate level of disturbance items outlined on page 27. Would the money available through the State Park OHV fund really be adequate to practically enforce the closure orders? Only through effective patrols and enforcement can the public be assured that users do not travel off designated routes, which would exacerbate the problem by leaving a sign for someone else to follow. Additionally, definition of the season of use for Alternative 4 is vague and open to interpretation so will be almost impossible to enforce. By allowing use until "at least 12 inches of snow have accumulated" (p 13), Alternative 4 could

potentially extend the OHV season well into the fall and early winter during some years. A set period of use such as that proposed for Alternative 3 "June 15 and ending .. three days prior to the beginning of archery hunting season" (p 12) is much more clear, easily enforced and has the added benefit of limiting conflicts with hunters and providing better elk security during the hunting season. How do any of the alternatives consider and account for the Oregon Department of Fish and Wildlife's seasonal road closures during hunting seasons in this area? [NPT]

***We note the correction and have changed the EA to show consistent numbers between the table and the narrative. We have refined the role of the OHV coordinator, and are certain that the funding available would adequately provide enforcement for the trail system. Based on comments such as yours, we have clarified the use season for Alternative 4 and developed Alternative 5. The cooperative travel management areas maintained by the Forest Service and Oregon Department of Fish and Wildlife do not occur within the Sled Springs trail system area. The Shamrock/Whiskey Creek closure area is north of the trail system area and the Noregaard closure area is west of the trail system area.***

Inability of enforcement personnel to administer this project, specifically OHV use of closed roads, cross country travel, and travel on to adjacent private forest lands that are closed to motor vehicles. Oregon State Police officers familiar with the proposal area, coupled with their experience with OHV trails in other areas, are concerned about enforcement problems that will be created by implementation of this proposal. [ODFW, Wildlife]

***Refer to the response to the following comment.***

As stated in the 5-11-05 meeting, the funds for this program will come from the state. If there is no state funding, then the USFS, "will shut down the program." There is no mention of this in the EA. Government funds is scarce in Oregon today, it would appear that a more secure source of funding be available before taking on a project of this size. Policing alone will be a budget item that will need to be addressed on an annual basis. Why initiate a project that will disrupt long-standing uses of the NF, but that has no chance to be implemented appropriately without the necessary funding. We urge you, at a minimum, to delay implementing the project until a secure funding source is identified. [PLC and permittee]

***We appreciate your concerns about sustained funding levels to manage the trail system. All of the action alternatives are based on successful completion of the mitigation and monitoring items. If funding is not available to complete the mitigation and monitoring, the trail system will not be operational. However, organized trail riders in the State of Oregon have expressed a strong interest in maintaining trail systems, and we are confident the State of Oregon Park ATV Allocation Committee will provide funding.***

### **Monitoring**

How will the salary of the Forest Service hydrologist be paid for regarding the consultation with the coordinator and OHV representative? Monitoring the use of this system is vital to its success. From the Environmental Assessment it is not clear that the level of this type of monitoring will adequately protect the resources in this area. For example, how will the monitoring coordinator and enforcement officials coordinate with each other? How will the monitoring coordinator insure that the closed roads and unauthorized trails are not being used by OHVs and full size vehicles, which *is* currently occurring in this area? [NPT]

The EA also fails to provide a methodology for monitoring elk and OHV conflicts. What specifically will be measured, how will it be measured, and how often? What is the threshold for mitigation measures to be enacted? [NPT]

We support the adoption of wet weather closures. However, in this case, we notice a complete lack of specific criteria for implementation of closures. Specific criteria must be developed to ensure that closure decisions are consistent and understood. [NAA]

Wet weather closures can be an effective tool provided efforts are made to harden particular problem areas so that the riding season can be extended. We would urge you to determine if specific problem areas exist and then prioritize actions necessary to make the trail more sustainable. [NAA]

The monitoring section gives little information on the specifics of monitoring. We would urge you to identify a series of photo points throughout the trail system and ensure that photos are retaken on a regular basis. Photo monitoring provides a cost effective and efficient way to track changes on the trails. When problems are identified additional site specific monitoring can be undertaken. [NAA]

The monitoring section indicated that you will monitor conflicts with big game use of the area. How would this monitoring be done? The annual meeting is a good idea but monitoring conflicts with animals is impossible unless you implement a costly radio telemetry program. [NAA]

In the Sled Springs Proposal, the closing of the trails is discussed when conditions warrant it. But neither specific conditions or if just sections of trail will be closed is mentioned. These areas need to be explicit so that no one person can make decisions on a whim. Possibly a club officer, or two, and the district ranger could specify conditions. That way we could have some input into the decision. [WVTRA]

***The previous comments on the monitoring plan were evaluated by the ID team and discussed with many of the commenters. Although it would be desirable to be more specific about the monitoring locations and triggers used to change future trail use, we believe that this information will be determined over time as trail use occurs and is evaluated. We invite all of the commenters on the monitoring plan to participate in developing the specific locations and triggers to be used in making the trail system compatible with other uses of the Sled Springs area.***



## **2. Environmental Effects**

### **Adverse Impacts**

The full suite of OHV impacts include: soil compaction, displacement, puddling, rutting, and erosion; water quality degradation; irreversible spread of invasive weeds; wildlife mortality; wildlife harassment; wildlife habitat degradation; noise pollution; displacement of other more compatible uses of the public forests; safety hazards; and fire hazards. [ONRC]

This EA clearly contemplates large OHV events yet the effects of those large OHV events are not disclosed and considered. [ONRC]

Until a comprehensive plan is developed that accounts for all the adverse impacts of OHVs, we urge the WWNF to limit OHV use to existing open roads and only during the dry season. [ONRC]

While the Tribe generally opposes the creation of OHV trails, the Tribe understands that the Forest Service has a mandate to provide for the multitude of uses on the Forest. However, in this particular area, the Tribe requests that old trails, or unused roads be permanently put to rest by culvert removal and obliteration or decommissioning, whichever is most appropriate in that specific instance. This is the only way that OHV impact can be restricted to trails with as little impact as possible. [NPT]

While I understand your desire to make accommodations for recreational forest users of all types, I have concern regarding implementation of this proposal's selected Alternative 4 and potential impacts resulting from substantially increased OHV use in the proposed project area. By design the project will increase area OHV use and will subsequently increase potential for unauthorized activity and related impacts. I understand planned road closures will mitigate for a certain level of sediment production. But it appears to me that progress made over the years in weed control, riparian habitat protection and sediment reduction will be dismantled by the level of OHV activity allowed in this proposal. [ODVW, Fisheries]

***We acknowledge that unmanaged OHV use in the Sled Springs area would create adverse effects on several resources. Alternative 1 in the EA represents continuation of this scenario. We have developed mitigation measures and monitoring items to limit the extent of effects, including enforcement by an OHV Trail Coordinator funded through the Oregon State Parks OHV Trail fund. We also appreciate offers by Nez Perce Tribe staff to participate in efforts to close roads not authorized for motorized travel.***

**Wildlife - Elk**

The increasing harvest by Forest Capital on lands surrounding the Sled Springs Area should be considered for effects on elk. [HCPC]

***As noted in the analysis of Key Issue 3 of the EA, we considered that the potentially highest quality summer range exists on the National Forest within this analysis area. Alternatives were designed to provide for varying amounts of elk security within the Sled Springs area to account for choices among adjoining landowners to harvest lands according to notices of intent to harvest regulated by Oregon Department of Forestry under the Oregon State Forest Practices Act. Alternative 3 was designed to protect four elk security areas in the upland habitat while Alternatives 1 and 2 provide no elk security areas in the upland habitat. Alternative 4 provides two elk security areas in the upland habitat and Alternative 5 provides three elk security areas.***

The conflicts between OHV and elk are considerable as research shows including the Starkey information referenced in the EA. Degrading elk habitat will hurt elk and many other species in the area and compromises the natural resources for all Americans. No HEI analysis is disclosed for the project area. Figure 7 gives a visual view of the detrimental impact alternative 4 will have on elk. [HCPC and Sierra Club]

***Effects to elk are discussed in the analysis of Key Issue 3 in the EA and in the Wildlife Resources section. The EA notes that an HEI analysis is inappropriate for this project since the alternatives only change one variable of the model. It is much more meaningful to focus on the effects of the alternatives to changes in motorized route distribution and density. Your observation related to Figure 7 is correct in noticing that very little security habitat will exist, which would negatively effect elk distribution, behavior, and potentially overall herd condition.***

Encouraging OHV use in this area will have detrimental impacts to Treaty resources, including plants, steelhead and local elk herds that Nez Perce tribal members utilize for subsistence. It has been clearly documented that elk use of an area is directly related to the amount and intensity of vehicle use. Research has shown that elk use declines dramatically within 12 mile of open roads (Thomas & Toweill 1982; Leege 1984; Lyon 1979; Hieb 1976; Perry & Overly 1977; Rost & Bailey 1979; Witmer & deCalesta 1985). In fact, elk use diminishes about 88% within the first 100 feet from any open road, 53% from 100 to 660 feet and 28% up to one mile away (Lyon 1984). Research conducted on the Starkey Experimental Forest has shown that persistent disturbance from roads may lead to permanent shifts in resource use by elk and subsequently have negative impacts on local resources and/or carrying capacity (Rowland *et at.* 2000). In addition, open road densities are directly related to bull elk vulnerability during the hunting season (Leptich & Zager 1991; Unsworth & Kuck 1991). Even though hunted elk avoid open roads (Irwin & Peek 1979, Unsworth *et at.* 1998), those that remain in areas near open roads are three times

more likely to be killed (Hurley & Sargent 1991). The potentially negative impacts to local elk herds resulting from the Sled Springs OHV trail system are a significant concern for the Nez Perce Tribe. [NPT]

***The effects of motorized access to elk populations are well documented in the scientific literature as you point out. The effects you describe are addressed in the analysis of Key Issue 3 and the Wildlife Resources portion of the EA.***

On page 31, it states that, "Leaving security areas for elk which also provide blocks for livestock grazing away from motorized trails." This will have deleterious effects on elk habitat by congregating cattle in the only secure areas for elk in the analysis area. Not only will this increase elk-cattle interactions it will also likely result in over grazing of the security areas. Alternative 3 provides the largest number of elk/cattle security areas, has the shortest season of use with the lowest potential disturbance period so addresses this issue better than any of the action alternatives but still fails to provide adequate security for elk. The Tribe recommends closing more roads to all motorized use to improve the elk security area quality and quantity in the Sled Springs area. [NPT]

***The intent of providing lower disturbance areas for elk may have secondary benefits for livestock, but reduced disturbance to livestock was not the primary consideration in proposing the security areas. Grazing utilization standards will not change as a result of any of the proposed alternatives; therefore permittees will continue to be responsible for meeting the terms of their permits. Alternative 3 does provide the most security areas, and additional closures will be considered (agreement in meeting with NPT in January 2007) to enlarge or increase the amount of secure habitat for elk.***

Elk displaced by OHV activity will move to adjacent private lands and result in additional damage to agricultural crops. [ODFW, Wildlife]

***Displaced elk are likely to move to adjacent private lands and could potentially create problems with agricultural crops, fence damage, and over utilization of winter range forage. These potential effects are recognized in the Wildlife Resources portion of the EA. "The result of this disturbance is 1) fewer elk on public lands for viewing and hunting, 2) increased utilization of range where elk congregate, 3) increased range, crop, and fence damage on private lands, 4) negative physiological effects to individual animals related to stress and resource acquisition, and 5) behavioral changes that negatively effect herd dynamics."***

### **Wildlife – Open Road Densities**

The open road densities are above the Forest Plan standards for much of the area and will

essentially be made worse if this proposal moves forward. A forest plan amendment would be necessary if this project moves forward. A significant adverse impact on the public land environment is likely from this proposal. An EIS is warranted on this proposal due to the likely impacts of increasing motorized use in the Sled Springs area. The alternatives don't meet the stated purpose and need of this proposal but only narrowly addresses only one user group. [HCPC and Sierra Club]

**Open motorized routes are defined for the purpose of the elk habitat analysis on Page 52 of the EA where it states “For the purpose of this analysis motorized routes refers to all categories of roads and trails where motorized travel is not prohibited by CFR. Although roads that receive different levels and frequencies of traffic are believed to have different effects to elk, it would be misleading to categorize roads and trails according to use levels in the absence of actual use data.”**

Page 28 states that, "Because OHV use was not prevalent when the Forest Plan was developed, the standard was only developed for full-sized vehicles.. Alternatives 2, 3, and 4 are consistent with the Forest Plan.. ". This seems like a technicality. Elk and other wildlife respond to all motor vehicles similarly - regardless of axle width. Research cited in the EA (Wisdom 2005; p 47) indicates that "ATV's have the greatest effect to elk" compared to other modes of transportation studied. The hope is that the Forest Service would seek to achieve the greatest resource protection possible, rather than using technicalities to meet FPS&G. Therefore, the Tribe strongly suggests decommissioning, treating and removing the culverts on more miles of road, which would allow for road and trail densities well below the 2.5 miles per square mile standard. Currently, none of the alternatives meet the open road density standards in all subwatersheds, although Alternative 3 meets those objects best compared to the other alternatives. [NPT]

**Motorized route densities are not below 2.5 miles per square mile for any of the alternatives. The following Table11 from the EA contains the densities of motorized routes by alternative. “For the purpose of this analysis motorized routes refers to all categories of roads and trails where motorized travel is not prohibited by CFR. Although roads that receive different levels and frequencies of traffic are believed to have different effects to elk, it would be misleading to categorize roads and trails according to use levels in the absence of actual use data”.**

Alternative	Motorized Route Density – Elk Summer Range	W-W LRMP Standard for Maximum Density	% of Area $\geq$ Moderate Quality Security Habitat
1	3.57	MA 1: 2.5 mi/sq mi (W-W LRMP, page 4-58)	0 %
2	4.45		>16 %
3	3.89		>18 %
4	4.23		>17 %

**The EA also displays open road densities for full-sized vehicles in Table 12. The EA further describes that because OHV use was not prevalent with the Forest Plan was developed, the plan only addressed full-sized vehicles. While the open road**

**densities for full-sized vehicles are shown as consistent with Forest Plan guidelines, the analysis also provides densities for all motorized access to display the difference among alternatives associated with the OHV trail systems.**

How was the type of decommissioning (scarification and seeding) for roads 020 and 024 determined (p 14)? Will this adequately address resource issues for those roads? Are these the only two roads that will be treated beyond closure? Where are they located specifically? Additionally, the construction of 20 new miles of OHV-only trails is not acceptable to the Tribe. There are numerous specific examples on the Alternative 4 map (p 22) where existing roads could be utilized in creating "loops" for trail riders to use, rather than constructing new trail segments. Additionally, the preferred alternative contains two subwatersheds (Upper Mud and Tope Creeks, Table 4, p 16) that would have open road densities higher than allowed in the Forest Plan Standard and Guides (FPS&G). Why are new trails proposed in subwatersheds that contain road densities that are currently above the FPS&G? Implementation of this road management project should be used as an opportunity to improve resource conditions while reaching compliance with FPS&G. [NPT]

**The Sled Springs roads analysis identified additional roads for decommissioning; however, unless considered necessary to mitigate the effects of the proposed OHV trail system, these road decommissionings were not proposed. Funding for this level of road decommissioning was not considered likely for these types of activities. Roads 020 and 024 were considered direct effects to sedimentation from proposed OHV use, and therefore would be decommissioned under the proposal. Since then, Alternative 5 has identified additional roads for decommissioning that could be implemented with projected budgets for watershed restoration**

Before any alternative is selected the Tribe would like to see additional road closures proposed to increase wildlife habitat protection and reduce sediment impacts to resident fish and steelhead habitat. At a minimum FPS&G for road densities should be met in all subwatersheds under all Alternatives. [NPT]

**Refer to the responses to the first two comments under this subsection.**

The lack of big game security areas due to the high density of road and trail miles needs to be-addressed. [ODFW, Wildlife]

**Alternative 3 addresses elk security habitat to a greater degree than the other alternatives although these areas are minimally large enough to influence elk distribution. The EA describes the difference in potential effects between alternatives relative to elk security habitat in the analysis of Key Issue 3.**

There appears to be a good meld of uses in your Preferred Alternative #4. Your ability to achieve that mixture while keeping your average road density below 2.5 miles per square

mile is very good. While there are a lot of reasons for those road density criteria, the net result includes aesthetics and we appreciate that. [ORC]

**Refer to the responses to the first two comments under this subsection.**

### **Wildlife - Corridors**

The Sled Springs area is likely an important wildlife corridor for many species including elk. There is no analysis of linkages of core areas for predators or other wide ranging species. Without understanding these important wildlife corridors, the WWNF can not significantly explain the needs and opportunity for wildlife movement in the area. Increased ORV use in the area will negatively impact any wildlife corridor in the area. [HCPC and Sierra Club]

***The Sled Springs OHV Project analysis area is not an appropriate scale to discuss corridors for elk. Elk distribution is addressed in the Wildlife Effects Analysis, but there is no recognition of “corridors” at this large of a scale. More secretive wide ranging predators would likely avoid the area in its current condition, and the action alternatives would further decrease the suitability of this area for these species.***

### **Wildlife – Old Growth**

Old growth on the WWNF is way below what is needed for wildlife species. This Sled Springs proposal would compromise much of the old growth in the area for old growth dependent species. The noise alone will displace most wildlife. 5 of the 11 old growth areas would be directly negatively impacted by Alternative 4. The quality of this existing old growth would be degraded and there is no analysis of fragmentation caused by the ORV trail. There is no analysis of LOS habitat and if it is well connected to other LOS stands. [HCPC and Sierra Club]

***The effects of noise (and other parameters) from motorized vehicles is poorly understood for many wildlife species, with the exception of elk which has been studied extensively. It is reasonable to assume that noise from OHV’s would disturb and displace other species as well. However, these effects are difficult to quantify except to compare alternatives in terms of security habitat, motorized route densities, or overall miles of motorized routes.***

We note the lack of protection for old growth that translates into effective habitat for old growth dependent species. [HCPC and Sierra Club]

***There would be no difference in “protection for old growth” than currently exists. The Wildlife Effects Analysis discusses effects to allocated old growth areas and to***

***snag/log habitat from changes in motorized access patterns.***

Large snags are in serious deficit, yet this proposal will reopen closed roads and build new roads and require the felling of hazard trees for years to come. [ONRC]

***The deficit in large diameter snags is acknowledged in the Wildlife Resources portion of the EA. Changes in access that can facilitate legal and illegal firewood cutting are also discussed in the Snags and Down Wood section of the Wildlife Effects Analysis. Hazard (danger) trees will be removed along all roads and OHV trails which would reduce snag habitat. The amount of snag habitat lost as danger trees is expected to be relatively small.***

**Wildlife – MIS**

We note the lack of project level surveys and population data for key MIS and habitat. [HCPC and Sierra Club]

***Effects to MIS are discussed in the Wildlife Effects Analysis in several locations. Habitat for pileated woodpecker and marten are covered in the old growth habitat section and in the snag section, primary cavity excavators in the snag/log section. Elk and goshawk are addressed in separate sections. Monitoring of MIS can be done at many levels that range from very simple cursory monitoring for specific projects (like this one) to intense research that covers larger geographic areas. The wildlife effects analysis meets the letter and intent of NEPA by disclosing the potential effects of this project commensurate with the scale, nature, and complexity of the project. No further monitoring of MIS is necessary in order to make an informed decision regarding this proposal.***

**Noxious Weeds**

It is well known that weeds spring up along roads often carried by motorized use. This proposal will make this problem worse as ORV use will spread weeds further off roads. [HCPC and Sierra Club]

***The Sled Springs OHV Trail system is accompanied by a road management plan and closure order that will no longer allow off-road or off-trail motorized travel. Consequently, OHV use will be concentrated along specific routes, which will receive an increased level of monitoring for resource issues, such as noxious weed introduction and spread. Detected sites will be treated, and if needed, trails will be closed to motorized use until the site is eradicated. In addition, users will be educated about noxious weed identification and prevention. As described in the noxious weed section of the EA, “Implementation of any of the action alternatives would greatly reduce the potential for, and amount of, cross-country travel and user-created trail development. This reduces the potential for weed spread.”***

Roads also promote the spread of noxious weeds and invasive plants (Sheley & Petroff 1999). Roads provide dispersal of exotic species via three primary mechanisms: providing habitat by altering conditions, making invasions more likely by stressing or removing native species, and allowing easier movement by wild or human vectors (Trombulak & Frissell 2000). Vehicles, including OHV s, transport the seeds of exotic plants and encourage growth, displacing native plants and their communities (Sheley & Petroff 1999). [NPT]

***Refer to the response to the previous comment.***

Spread—of noxious weeds and their control has not been adequately addressed in the proposal. [ODFW, Wildlife]

***We carefully considered the means for controlling and preventing noxious weeds. We believe that the mitigation measures and monitoring items in the EA will successfully control the spread of noxious weeds within the Sled Springs area.***

I did not see any mention of a vehicle wash facility in your plans. The noxious weed problem will probably demand that all too soon. The Morrow County OHV facility features a wash station you might look at. Believe they saved some money by being innovative, too. [ORC]

***The ID team considered requiring a wash station for the Sled Springs area. In the Sled Springs setting, the prevention and control measures prescribed in the EA were considered to be as effective as installing and operating a wash station.***

To facilitate development of the weed education program mentioned on page 17, we would urge you to contact the Montana Trail Vehicle Riders Association for copies of the weed education material developed in cooperation with the Forest Service and focused towards OHV riders. [NAA]

***Thank you for the suggestion. We have been gathering weed education from several sources, and we will be sure to secure any information available from the Montana Trail Riders Association.***

### **Soils**

We note the Forest Service's failure to adequately analyze and mitigate impacts to soils under the National Environmental Policy Act. [HCPC and Sierra Club]

***As described in the effects on soils in the EA, OHVs by their nature cause detrimental soil conditions through compaction and displacement. However, a***



***decrease in detrimental soil conditions is expected because ongoing off-road travel by motorized vehicles would no longer be authorized under the action alternatives, and currently compacted or displaced soils would begin to recover. A closure order would eliminate off-route travel, and this order would be enforced by a position described in the monitoring section as the Sled Springs Trail Coordinator.***

Soil compaction due to the ORV trail will further limit the productivity of these public lands. [HCPC and Sierra Club]

***As described in the previous response, a decrease in detrimental soil conditions is anticipated as currently compacted and disturbed areas recover after a trail system is designated and a closure order is implemented to eliminate off-route travel.***

### **Water Quality**

Erosion will be increased and add to sediment problems for area streams. [HCPC and Sierra Club]

The extensive road network created to facilitate the massive logging campaigns of the early 20th century negatively impacted every aspect of the Tribe's treaty resources, as well as many cultural and spiritual sites. Roads eliminate habitat through their development; they fragment habitat, compact soils, disturb or destroy organic layers, and cause higher rates of erosion or mass wasting. Roads are one of the single biggest contributors of sediment to the regions streams and rivers, and in some cases as much as 40 percent of the sediment produced in a watershed was attributed to logging roads (Reid 1980; Kahklen 2001). This sediment ruins the gravel beds which support viable spawning habitat, chokes redds already in the riverbed, and lowers the success and recruitment (Cederholm *et al.* 1980). As such, the Tribe is opposed to building new roads or trails without decommissioning and recontouring old roads. [NPT]

***Many of the roads to be closed in conjunction with the Sled Springs OHV trail system are ridge-top roads with limited road prisms. Recontouring these roads may not accomplish hydrologic benefits. We are planning to close these roads using a combination of closure orders, signs, berms, and entrance disguises. We appreciate offers by tribal staff to cooperate with the agency in accomplishing these closures.***

Some currently closed roads would be converted to OHV-only trails (Table 3, p 15). The analysis failed to consider the detrimental impacts this would have on the recovery of those roads. One of the underlying assumptions apparent in this document seems to be that roads closed by a physical barrier will recover on their own without further resource degradation. There are numerous inferences to this throughout the Environmental Assessment (e.g. p 28-30; *Summary* p 83; Alternative 2, p 66). The leap from decreased sediment in years following construction to "Roads that are mostly covered with vegetation or duff, . . . , are

well on their way to recovery" (p 29) is erroneous. Numerous studies have documented that the sediment originating from roads that were simply closed was up to 1500 times more than roads that were treated (obliteration or decommissioning) (Bloom 1998; Weaver & Hagans 1999; Bundros & Hill Unpublished data). Furthermore, how will "soil compaction in closed roads.. 'recover" (Alternative 2, p 66), when it has been well documented that roads that are closed with physical barriers still cause resource damage? Therefore, the Tribe urges the Forest Service to consider other treatment options (levels of decommissioning) and removing old culverts for those roads that will be closed, *prior to closing them*. It is imperative that any decommissioning occur before the road is closed, because once the road is closed, it is taken off of the Forest Service system and is unlikely to receive additional work after that time. [NPT]

***Again, we appreciate offers from tribal staff to work with us on implementing road closures. We are also interested in leaving closed roads in a condition that minimizes sedimentation and look forward to identifying opportunities to work together toward that end.***

The TMDL is not complete for Mud Creek and the WQRP has not been written yet. The ORV trail will add more sediment to Mud Creek and likely impact other users such as grazing when the WQRP is complete. [HCPC and Sierra Club]

***The EA recognizes that the TMDL and WQRP for the Sled Springs area is not completed. The EA states that until a WQRP is completed, the ODEQ requires that conditions will be maintained or enhanced. The action alternatives were described as maintaining the parameters for which Mud Creek was designated a 303 (d) stream, and that road closures will contribute to alleviating existing conditions that affect hydrologic functionality to a small degree.***

We note the Forest Service's failure to adequately analyze impacts to riparian, water quality, and fisheries resources, threatening violations of the Inland Native Fish Strategy (INFISH), PACFISH and the Clean Water Act. [HCPC and Sierra Club]

***The EA addresses impacts to riparian, water quality, and fisheries resources and concludes with statements of consistency with PacFish, ESA, and the Clean Water Act. The project area does not contain fisheries covered by InFish.***

### **Fisheries**

Steelhead and redband trout would be negatively impacted by this proposal. Spawning and rearing habitat would be adversely impacted by the increased sediment generated by this proposed trail. The Rosgen C type channels found in the project area are very important for steelhead spawning. Table 17 displays many stream segments functioning at risk or functioning at unacceptable risk. This OHV trail proposal will only make things worse. The EA suggests that streams are on an improving trend but there is no data to support this

claim. There is no predictive model used to estimate trail impacts on streams. [HCPC and Sierra Club]

***Effects on listed fish species and habitat are addressed in the aquatic resources section of the EA. This analysis shows an improvement in conditions from alternatives that introduce a managed OHV trail system and full-sized vehicle road system. The determination of May Affect, Likely to Adversely Affect for this project was based on potential short-term impacts associated with the bridge installations.***

The Tribe understands that an OHV trail in the Sled Springs area will likely impact steelhead habitat. Therefore, the Tribe wanted to take this opportunity to state its position. On numerous occasions Tribal staff have identified OHV use on closed logging roads. These are roads that, on the one hand, the Forest Service claims are not contributing sediment to streams because they are not being used, and on the other hand the Forest Service acknowledges are being used as an OHV trail. The Tribe is not claiming that the Forest Service is being purposefully deceptive, but rather OHVs are quickly becoming ubiquitous in this part of the Country, and their users do not necessary follow road closure regulations. In fact, the lack of effective road closure enforcement strategies and necessary personnel is a significant concern with this proposal. This trail system will encourage increased OHV use in the area which will likely result in unrestricted access to sensitive fish and wildlife habitat, such as riparian areas and wet meadows. Potential impacts to cultural sites from unauthorized entry to closed areas are also a concern that was not addressed in the EA. [NPT]

***The Sled Springs OHV Trail system includes a monitoring plan and a trail coordinator to facilitate the monitoring. Funding will be secured through the Oregon State Parks OHV fund. We appreciate offers by the Nez Perce Tribe to cooperate in closing roads not designated as open for OHVs or full-sized vehicles. Refer to Page 119 of the EA for measures taken to protect cultural sites from trail impacts.***

Most of the data referenced in this section is from stream surveys that were conducted in 1992-94. This information is outdated and a one time survey. Thus, parameters that address status and trend, like bank stability (p 72) extrapolated from this information are inaccurate. The Tribe requests an overlay of Table 17 (p 71) on a map of the proposed trail system. This would allow for a visual comparison of the subwatersheds in the "functional at risk" and "functional at unacceptable risk" categories (5 of the 6 subwatersheds). Furthermore, the Tribe suggests that subwatersheds in these two categories be further enhanced and protected utilizing active restoration strategies, which would preclude the development of this trail system as proposed. [NPT]

***We appreciate your support for continued restoration of the subwatersheds within the Sled Springs area. We look forward to joint efforts in closing roads that are not designated for motorized use in this area. We also recognize the tribe's success***

***in attracting funding for active restoration projects throughout the area and look forward to future projects that would respond to a need to restore riparian conditions.***

On page 83, the document states, "There are six culverts proposed for replacement.. .to eliminate migration barriers to juvenile fish. . .". How can all subwatersheds be "functioning appropriately" (Table 17, P 71) for physical barriers, while there are at least six known passage barriers in the project area? On the same page it states that the development of this system with the closure of 70.8 miles of roads would increase the recovery rate of vegetation and channel morphology. Specifically, how will that occur, and how was that conclusion reached? Where are the research and references that validate these statements? [NPT]

***The determination of "functioning appropriately" for physical barriers was made considering that six culverts within the entire Wildcat-Mud-Courtney watershed were identified as passage issues for juveniles or not being able to carry 100-year event flows. This watershed contains 13 subwatersheds, of which 11 contain portions of the National Forest. The improvement in the recovery rate of vegetation and channel morphology in sections of degraded stream systems is based on the assumption that closed roads would eventually revegetate. Where these roads cross or parallel streams, this revegetation would contribute to an improvement in stream condition.***

Page 97 indicates that a, "determination of effect for summer steelhead was May Affect, Likely to Adversely Affect". The Tribe would like to request a copy of the final Biological Assessment and Biological Opinion for this proposal. This determination indicates that more restoration work is warranted to mitigate for this project. Without additional restoration activities, this is an unacceptable risk to steelhead. [NPT]

***Copies of the Biological Assessment and Biological Opinion were provided to the Nez Perce Tribe staff, as requested. Please note that the determination of Likely to Adversely Affect was associated with the short-term impacts related to bridge installations.***

The final comment on this section is related to the trail crossings on the nine ephemeral draws (p 77). The Tribe suggests the Forest Service use a size of rock that will not be suitable spawning gravel for steelhead or resident rainbow/redband trout at these crossings. [NPT]

***We have incorporated this suggestion into the mitigation measures for the action alternatives.***

During recent trips to the area I have noticed evidence of existing OHV trails in very

inappropriate locations. These trails can be observed on the very steep slopes of the area's canyons where they create gully erosion and contribute to the already significant road system related sediment input to the project areas streams. [ODFW, Fisheries]

***We have noticed some of the same evidence. The designated trail system would not include these inappropriate locations and would be designed to minimize sedimentation into streams.***

Given the Alternative selected, I question the Forest Service's ability to focus enforcement effort in the area adequate to prevent increasing watershed impacts above the current level. Unauthorized development and use of non-system trails will result in increased wildlife harassment, increased weed dispersal, increased riparian damage and increased sediment entering area streams where it impacts ESA listed Snake River summer steelhead. [ODFW, Fisheries]

***By proposing a designated trail system, and designing it with features that make the designated trails attractive to users, we conclude that enforcement needs will be reduced. However, to describe our commitment to monitoring, we have further described enforcement efforts associated with the action alternatives in the EA.***

### **Botany**

There is no botanist on the list of personnel who participated in the preparation of the Sled Springs EA. This fact does not assure the public that the plant species analysis is complete or accurate. [HCPC and Sierra Club]

***Chapter 4 of the EA lists the analysis preparers, including a highly qualified botanist. The project botanist reviewed the project area for the presence of rare plants and noxious weeds, participated in the analysis, and prepared a Biological Evaluation, which is contained in the project file.***

### **Economics**

We note the Forest Service's failure to adequately analyze impacts to economics under the National Environmental Policy Act. [HCPC and Sierra Club]

***Economic effects were not raised as a concern during the external or internal scoping process.***

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### **Roadless**

The impacts to the adjacent Tope Roadless area are not disclosed nor is there an analysis of

the changes in wilderness characteristics for this roadless area. [HCPC and Sierra Club]

***An analysis of effects on the Tope Creek Roadless area is provided on Page 118 of the EA. This analysis does describe ongoing impacts from the existing unauthorized road on Washboard Ridge. However, the analysis describes that under Alternatives 2, 3, 4, and 5, this road would be closed to further entry into the roadless area by motorized vehicles. Because there would no longer be motorized use in the roadless area, the impacts on wilderness characteristics were not analyzed in detail.***

### **Tribal Treaty Rights**

On page 19, it states that annual meetings will occur with the ODFW Wildlife biologist to monitor potential conflicts with big-game use of the area. All of the other involved parties appear to be represented during this annual meeting, except for the Nez Perce Tribe. It would seem appropriate and necessary for the Nez Perce Tribe to be a participant in these meetings as well. This would allow for discussions of potential conflicts with the trail system and Tribal members exercising their Treaty rights in this area. There is a very real potential for conflicts with users and Tribal members exercising their Treaty rights in this area (e.g. hunting with rifles), which has not been addressed thus far. This is a safety issue for all parties concerned.

***We have included the Nez Perce Tribe in annual meetings as shown in the EA.***

"In order to maintain the customs and culture that are most important to our Heritage, our great, great fathers' intuition at the Walla Walla councils preserved access to the land so the impacts of population by whites would never snuff out our inert attachment to the cultural resources which perpetuate our culture. The A TV is only one more harmful addition to the incidents that have impacted the land for not only the Tribes, but also for those who value the natural resources the forest is home to" (Joe McCormack). [NPT]

***We will refer your comment to the responsible official for consideration.***

### **Livestock Grazing**

The proposed Trail and Road Management Plan in Wallowa-Whitman National Forest will have a substantial adverse impact on the livestock industry if implemented as proposed. The trail system will impact 3 grazing allotments in the Wallowa-Whitman. There are many concerns that we have with the proposal of the trail system. Some of these problems include: seasons of use of OHV in the NF; number of OHVs active at any certain time; detriment to livestock grazing and viability; and funding for the proposal. [PLC]

***We have been meeting with the affected permittees and incorporated additional measures to protect their operations during the trail-riding season. We have***

***adopted a permit system for OHV use and will be closing designated trails to riding if conflicts cannot be resolved between trail use and sheep grazing.***

More than 50,000 people participate in OHV activities on the Wallowa-Whitman National Forest yearly. When the USFS implements an OHV management plan, all OHV riders will be confined to designated trails. This will develop a huge impact on an area such as Sled Springs. Under the proposal, there can be an OHV rally on any given day. This causes concerns of 1000's of riders legally driving through grazing allotments during calving, lambing, fawning or hunting season when livestock and wildlife stress is extremely high. OHV riders could possibly take the lives of many livestock/wildlife animals without meaning to cause harm, but stress on animals can cause death. [PLC and permittee]

***Other OHV trail systems on the Wallowa-Whitman National Forest are within range allotments and have resident wildlife, and have not experienced undue stress to the animals.***

Livestock grazing and OHV use are not compatible. Primarily due to the topography of the area proposed for the trails, with narrow ridge tops, riders and livestock will have to share land, which definitely sets up a potential conflict. Permittees have to meet standards and conditions on their allotments in order to be in compliance with the forest plan, but now with the OHV users disrupting the grazing patterns, through no fault of the permittee's, they could be found in violation of these conditions. [PLC and permittee]

***A mitigation measure was added to the EA that would allow the adjustment of key areas for rangeland monitoring to more representative locations if OHV use disrupts livestock use patterns.***

Another potential conflict is the use of livestock guarding dogs on the Mud Creek Sheep allotment to protect the sheep from predators. Over 250,000 sheep and 150,000 cattle are lost each year to predation; therefore, any prevention strategy for the loss of sheep to predators is necessary. Disruption of the tranquil grazing routines by OHV riders has the potential to provoke these dogs into attacking the riders if they feel the flock they are guarding is being threatened. [PLC and permittee]

***This issue will be addressed through informational signing at the staging areas and through discussions with the local OHV club.***

Another factor in the incompatibility is that these machines are powerful and fast. If a speed limit is not set so that riders are not riding on the trails at excessive speeds and making excessive noise, the consequences of scattering livestock and the disruption of production such as weight gains and breeding percentages will occur. [PLC and permittee]

***The design of the trail system is intended to be family friendly, with shortened***

**sight distances that keep speed down. If through monitoring and joint discussions with the Wallowa Valley Trail Riders and local livestock permittees speed is seen as a problem in certain sections of trail, design features such as warning signs, or added difficulty to the trail tread itself to slow traffic down can be done.**

If OHV use is going to be managed in the Wallowa Valley Ranger District, why not put the trails in an area where there are no active grazing allotments? We understand there is an existing system of snowmobile trails on the forest where there is no livestock grazing. We believe the best multiple use management accommodates all prescribed uses of the forest. We urge you to use the existing snowmobile trails for OHV use. [PLC and permittee]

**A feasibility study for OHV trail development was completed for the Wallowa Valley Ranger District, and the Sled Springs area was seen as the most suitable location for establishing a motorized trail system. Most miles of snowmobile trails are currently on existing open roads (roads traveled by full-sized vehicles), and some of the snowmobile trail system is on the FS 39 Road, a paved scenic byway. Although the design of the Sled Springs used the existing road network to the extent possible, a significant number of miles of existing road in the Sled area will be converted from full-sized vehicles to a trail width from 30-54 inches. Areas managed by Wallowa Valley Ranger District without cattle allotments are not large enough for establishing a motorized trail system. Establishing a motorized trail system on either Hells Canyon National Recreation Area or Eagle Cap Ranger District are not compatible with the current management direction for those areas.**

### **3. Analysis Process**

#### **Purpose of and Need for Action**

The purpose and need for this proposal says, "... to provide for a wide variety of recreation opportunities in an attractive setting and make those opportunities available to all segments of society." The WWNF assumes that OHV opportunities are lacking. This clearly is not the case given the many opportunities available for OHV use that are presently available on the WWNF and other lands in the area. According to the draft roads analysis there are over 4,000 miles of open roads throughout the WWNF available for OHV use. The WWNF has already designated many acceptable(?) motorized routes on the forest. Increasing more opportunities for this small user group is going way beyond the necessary amount needed and degrades the forest health of Sled Springs area and will cause conflicts with other user groups. [HCPC and Sierra Club]

**Until the Wallowa-Whitman National Forest implements the National OHV policy, you are correct that opportunities for OHV use are available because there are currently few regulations on OHV use. As the National Policy is implemented over the next 3 years, OHV use will become restricted to designated routes only. Our**



**forecasting of appropriate areas for future OHV trail systems precludes many other areas on the north end of the Wallowa-Whitman National Forest. We expect that very soon, appropriate OHV motorized trails will become limited, and at the same the demand for this type of recreation opportunity continues to grow.**

### **Range of Alternatives**

The action alternatives narrowly focus only on the perceived needs of ORV users; not on a "wide variety of recreation opportunities" for "all segments of society" as stated in the purpose and need. There is no alternative that would limit cross country motorized use and decommission roads to meet the Forest Plan standard which would have many benefits for wildlife and generally for forest health. Converting roads to ORV -only trails does not decrease the motorized use impacts on most resources. We note the lack of a full range of alternatives necessary under NEPA that relate to the stated purpose and need. [HCPC and Sierra Club]

**We disagree that the alternatives narrowly focus on the perceived needs of ORV users. As described in the response to the previous comment, within 3 years, opportunities for OHV trail systems will be limited as the National OHV Policy is implemented. As documented by increasing OHV sales and evidence of decreasing physical fitness among Americans, the need for motorized recreation opportunities is increasing rapidly while the National Forests will be implementing a policy to restrict OHV use only to designated routes.**

### **Cumulative Effects**

The cumulative effects of the project area including timber sales, prescribed burning, weed treatment, grazing, lack of road maintenance, firewood collection, private logging and roads all contribute to adverse effects of the area. An ORV trail will add to the problems and not offer solutions to the present adverse cumulative impacts. [HCPC and Sierra Club]

**The Forest Plan Environmental Impact Statement anticipates a certain level of impact associated with multiple-use management, and standards and guidelines were established for managing those impacts within acceptable thresholds. Our analysis shows consistency among the action alternatives with Forest Plan Standards and Guidelines.**

We note the lack of a complete cumulative effects analysis to inform the public of past and proposed activities impacts on the project area. [HCPC and Sierra Club]

**A cumulative effects analysis was prepared for each resource area described in Chapter 3. Table 6 lists the actions and activities considered for cumulative effects later in the chapter.**

### **Roads Analysis**

We note the lack of a finalized Roads Analysis for the WWNF. [HCPC and Sierra Club]

***A Roads Analysis was completed for the Sled Springs Area and is contained in the analysis file.***

### **Analysis Validity**

We note the Forest Service's failure to establish the validity of science used in this analysis and have not disclosed shortcomings or inaccuracies of the applied methodology. We strongly suggest you add more analysis that uses valid science and relevant data to support your findings. [HCPC and Sierra Club]

***We would respond by asking what specific information you have that indicates shortcomings or inaccuracies of the applied methodology? We have used relevant data and science in the analysis of effects. Are you familiar with any data or science that we did not consider?***

### **Forest Plan Revision**

One further general question the Tribe has is how the Forest Plan Revision may impact this system. This is a foreseeable action that will have a direct and cumulative effect on this trail system. [NPT]

***We expect that upon adoption of a revised Forest Plan, a reconciliation of all ongoing projects will be needed to ensure consistency with the Forest Plan. At this point, not enough sufficient detail is available to predict what management direction the revised Forest Plan will contain.***

### **Public Involvement**

We do not believe adequate notification has been given to hunters, especially those outside of Wallowa County. Nearly 2000 deer tags are authorized for the Sled Springs unit and few of these tag holders are aware of this project and the impacts it will have. There are also many archery and rifle elk hunters that traditionally use the area and have not been made aware of this proposal. We recommend the comment period be extended and hunters sent a summary of the proposed project. Address lists for hunters could be made available by the Enterprise ODFW office. [ODFW, Wildlife]

***The distribution of our scoping letter which outlined Alternative 2 in the EA was sent to a mailing list of 280 individuals, organizations, and agencies. This mailing list was generated over the years by those who are interested in***

**participating in Wallowa Valley Ranger District projects. Some names are hunters who have regularly returned to the district. While we did not contact all hunters successful in drawing a tag for the Sled Springs Management Unit, we are convinced that we reached a cross section of people who recreate on the district. The EA identifies changed conditions for hunters in the Sled Springs Areas by alternative. We do not feel the need to reinitiate a public comment process to confirm that change.**

#### **Document Errors**

The description of Alternative 4 on page 12 indicates that there will be four bridges. The map for Alternative shows 6 bridges. [NAA]

**Thank you for catching this error. Alternative 4 includes installation of 6 bridges.**

### **4. Support for or Opposition to the Alternatives**

**The following comments have been forwarded to the District Ranger for consideration in alternative selection.**

When the full impacts of OHV s are accounted for we feel that it is best to limit OHV use rather than encourage and accommodate it. OHV users should be encouraged to practice their destructive sport on private lands. Establishing this OHV area might seem convenient at the moment but it is at best a "lesser of evils" approach to the OHV problem. In the future, we will look back at this decision and recognize that this area was "sacrificed" and that the area no longer supports the diverse public values that the National Forest were established to protect and serve. [ONRC]

According to the WWNF visitor survey, less than 11 percent of visitors use OHV and less than 1 percent use OHV as their main activity. From the public's view point, catering to the small special interest group wants is inappropriate for many reasons. First OHV use is in conflict with many other users on the forest. OHV trail system basically excludes most of the public from the area due to noise, dirty air, degraded natural resources including water and wildlife and weed spread. OHV use will greatly change the condition of this area. Wildfires are more likely to be started by humans or OHV machines, poaching is likely to be increased and wildlife will avoid the area. [HCPC and Sierra Club]

The Nez Perce Tribe would like to briefly state its opposition to creating additional roads/OHV trails in the Wallowa-Whitman National Forest. The Wallowa County portion of the Wallowa-Whitman National Forest is wholly within the Nez Perce Tribe's aboriginal territory, which was ceded to the United States in the Treaties of 1855 and 1863 in exchange for the United States' protection of the Tribe and its retained rights and resources. Tribal members routinely use the Wallowa-Whitman NF to exercise many of their retained treaty rights, including fishing, grazing, hunting and gathering. This is

particularly true in this specific area. [NPT]

Furthermore, the Tribe questions the reasoning in selecting Alternative 4 as the preferred, when the OHV club indicated that they preferred, "the opportunity to ride in the early part of the season when dust is minimized" (p 39). This seems more conducive to Alternative 3, which would also provide the highest level of resource protection of the analyzed alternatives. If this project must be implemented, the Tribe supports Alternative 3 as the preferred alternative for the following reasons.

1) Alt. 3 includes the highest number of permanent road closures, although more are needed to meet FS standards, 2) Alt. 3 creates the fewest new roads and re-opens the fewest closed roads, 3) Alt. 3 provides the greatest number of elk security areas although there are still concerns about the quality of those areas and increased elk/cattle interactions as a result of this action, 4) Alt. 3 has the shortest season of use and the most enforceable opening and closure guidelines, and 5) Alt 3 has the lowest potential negative impact to goshawks of any action alternative. [NPT]

Projects such as this are difficult to change or reverse once established, and we recommend that you consider implementing alternative 3. This alternative provides greater protection of natural resources, provides OHV use during a specific time period, and minimizes conflict with traditional recreational use. We recommend alternative 3 be implemented in 3 phases. Phase 1 could begin with the area east of Mud and Sled Creeks. Phase 2 add the area east of Tepee Creek. Phase 3 add the area east of Tope Creek. Each phase should be monitored for a period of 3 years and only implemented if no serious problems arise. We recommend that roads identified to be closed to motor vehicles be physically closed prior to project implementation. Implementing the project in this manner would allow the forest and users to evaluate the project over time and apply necessary changes based on program evaluations. [ODFW, Wildlife]

In conclusion, I would like to state that we are firm believers of the multiple use concept, but we also think that it is not right for the OHV users be given an open season to use the Forest with unlimited numbers in an area. The USFS needs to manage the OHV use because it has been compared to a "cancer on the land" in many areas throughout the West. As with all users of the Forest, there are more good ones than bad, but the bad make it difficult for everyone. A few trips on an unauthorized trail will lead to many more in-depth problems with grazing and safety of both the riders and the animals. [PLC and permittee]

We support your decision to adopt Alternative 4 as the preferred Alternative. However, we do have some specific comments on information in the EA. [NAA]

I have concluded reading the for the trail proposal for the Sled Springs area and as a hunter, I would support Alternative 3. This alternative does provide the greater protection for deer and elk during the rut and fawning and calving seasons. Alternative 3 does still provide adequate area for trail riding during the summer months when there would be less liking hood of the A TV s causing ruts in the soil. The deer and elk herds in the Sled Springs area are subjected to heavy predation by cougars, bears and coyotes and adding heavy road traffic from OHV s would only add to the stress that these animals must

endure. For this reason, I ask that you give greater consideration to Alternative 3.  
[Schaller]

I have reviewed the Environmental Assessment for the Sled Springs Off-Highway Trail (OHV) Proposal and Road Management Plan. I wish to commend the USFS, ODF&W, WVTRA, other agencies and individuals that have worked so long and hard to develop this much needed plan. [WVTRA]

After reading the proposed OHV plan and considering the four alternatives, I endorse Alternative 4. [WVTRA]

The Wallowa Valley Trail Riders Association (WVTRA) have explored and developed trails in several areas of the Wallowa Valley Ranger District. USFS personnel was informed and aware of these club activities. [WVTRA]

The WVTRA spent four years (1999 to 2002) developing a trail system in the Coyote, Dougherty Campground area. About this time the USFS told WVTRA they could no longer develop a permanent trail system in the Coyote C.G. area because of ODF&W concerns about elk habitat. There were also concerns by the Nez Pierce Indian Tribe. This area is close to the tribe's traditional hunting ground. [WVTRA]

At this time USFS suggested the Sled Springs area. The club was told there would be no conflict with ODF&W because this area was low quality elk habitat and was not a concern. We worked on developing a trail system through 2003 and 2004. At this time USFS for undisclosed reasons suggested we move toward the Roberts Butte area. Same story-after working on new trails through 2005 we were directed back to Sled Springs again. Nothing new was said about concerns for elk around Sled Springs. [WVTRA]

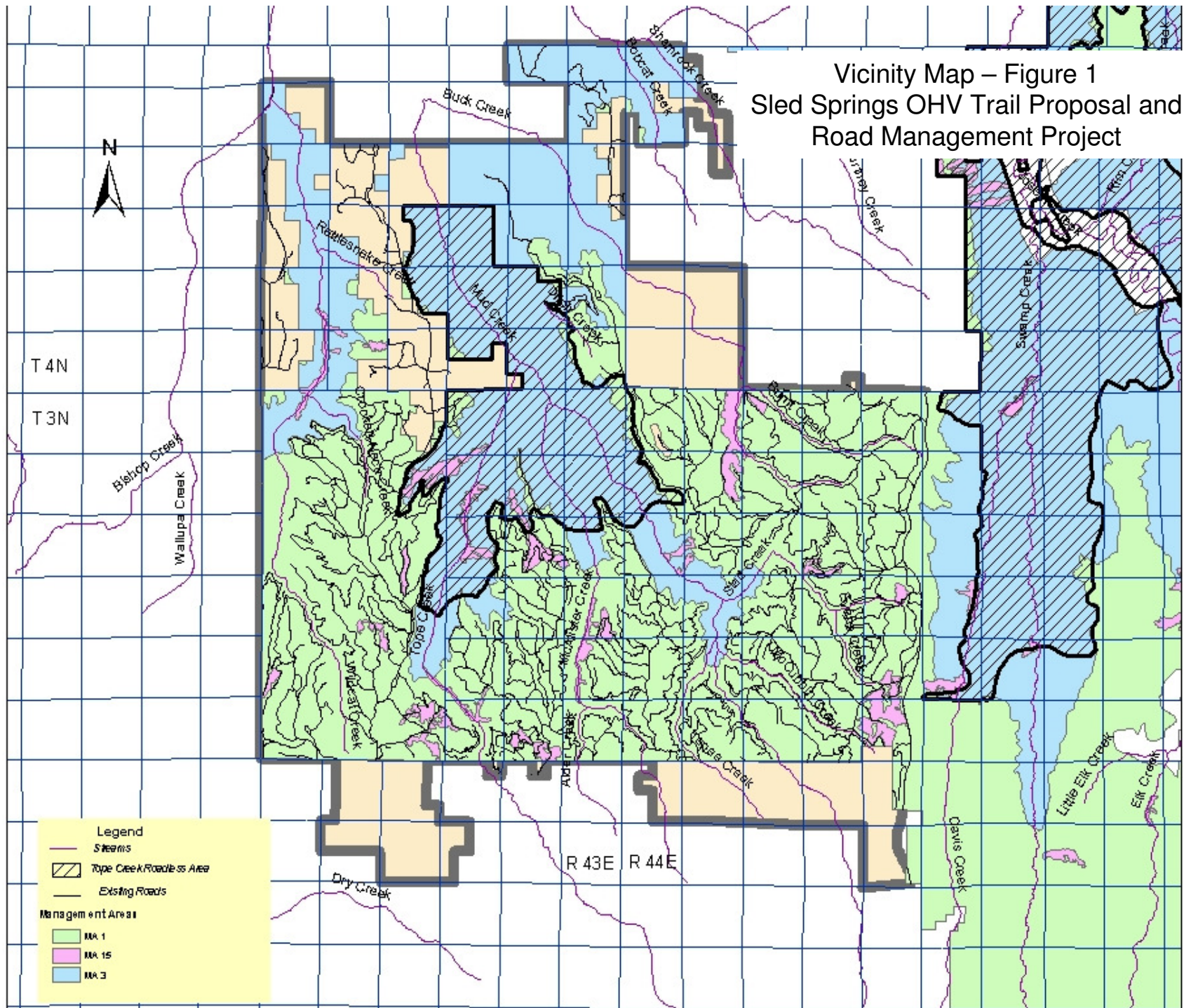
The Sled Springs OHV Trail Proposal and Road Management Plan is a great piece of work. [WVTRA]

This is a good plan. Alternative 4 is the best way to go. Alternative 4 addresses the concerns of all the issues. [WVTRA]

I urge you to reconsider alternative selection for this project and to strongly consider adopting an alternative that insures better resource protection by providing fewer miles of open trail and more limited season of use. Selecting a more conservation minded alternative will in turn allow better monitoring and enforcement of project related activities both authorized and unauthorized. [ODFW, Fisheries]

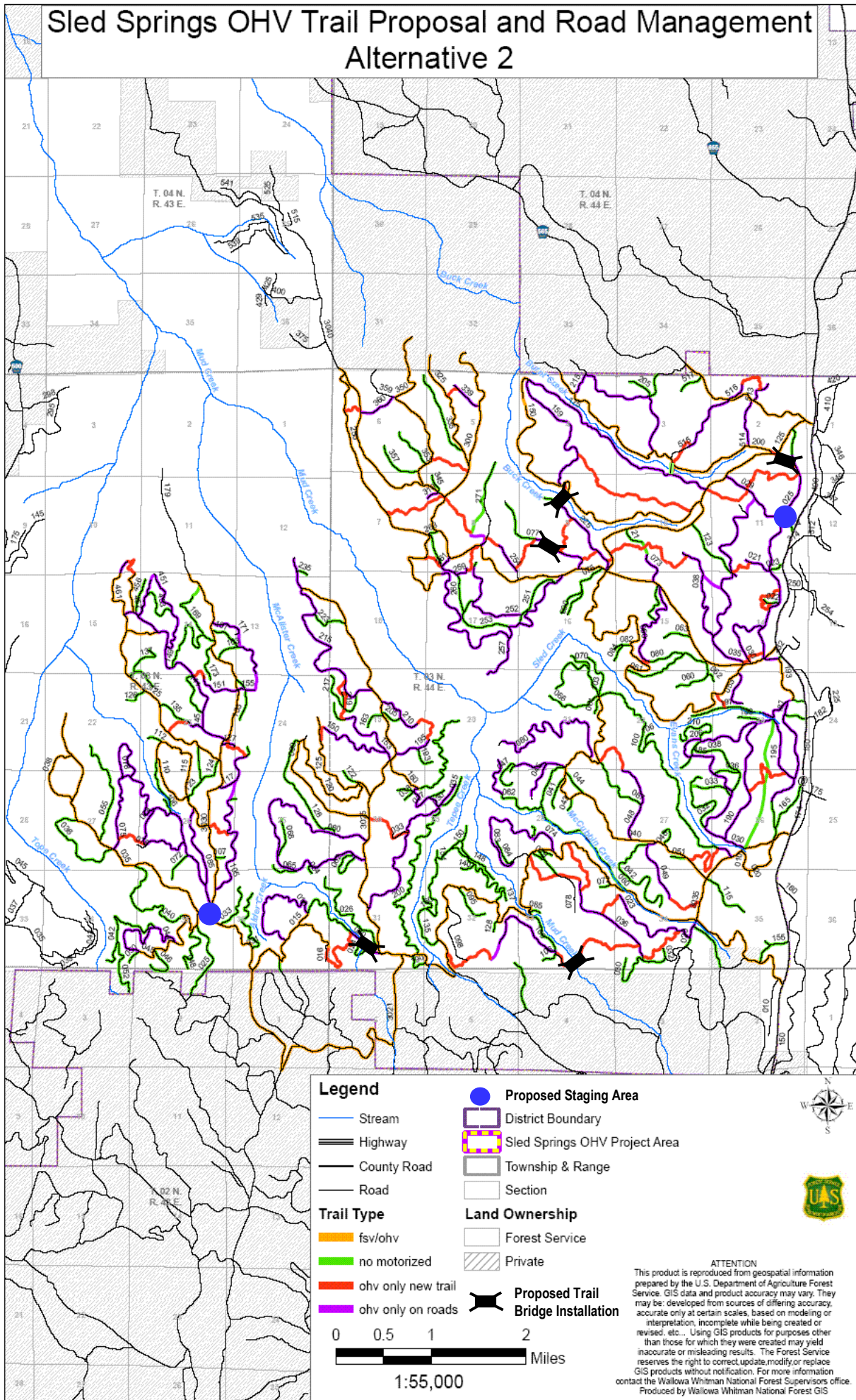
As a hunter, I don't agree with having OHV trails in the Sled Springs hunting unit.  
[Walker]

Vicinity Map – Figure 1  
 Sled Springs OHV Trail Proposal and  
 Road Management Project

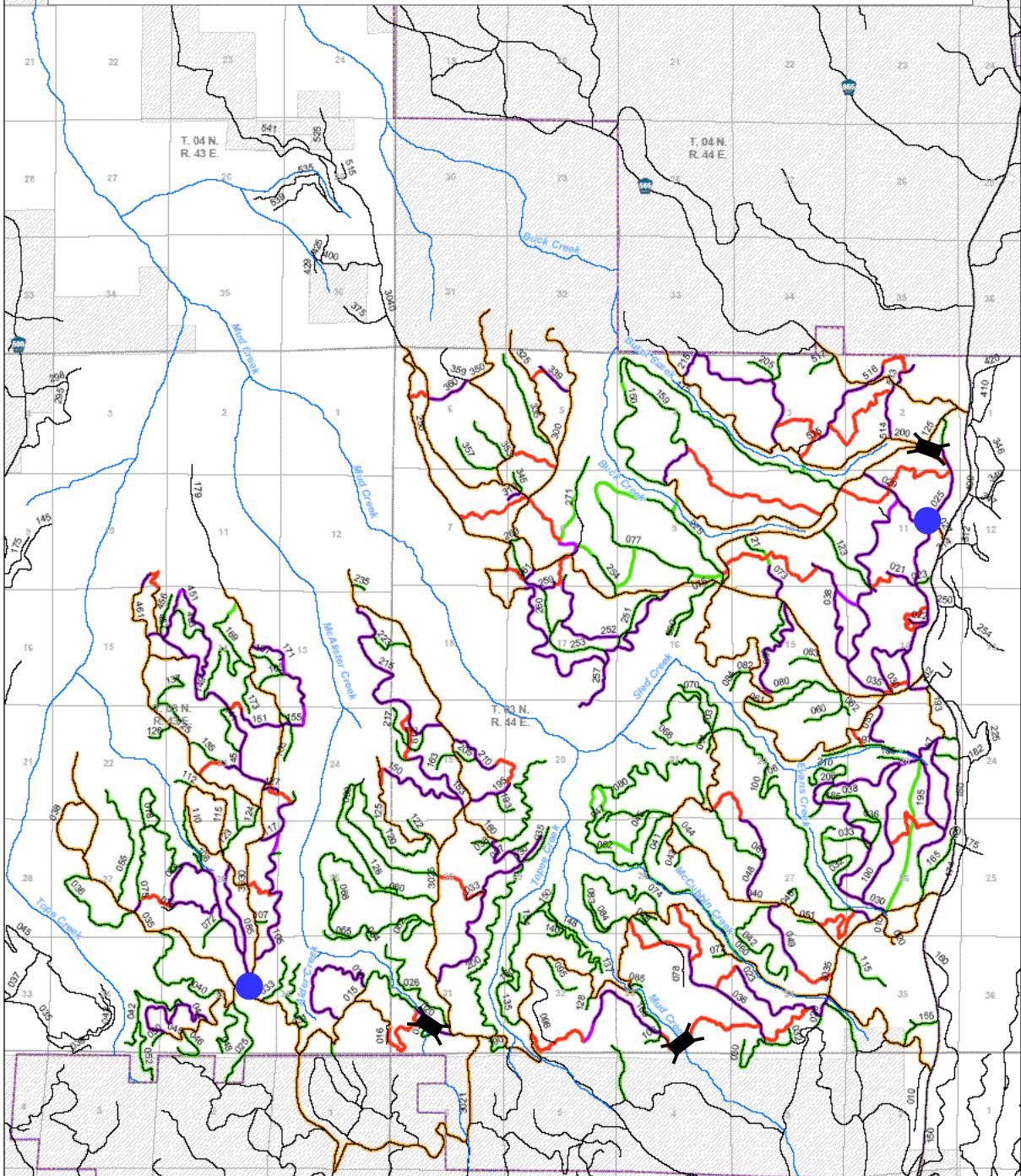


0 0.5 1 2 3 4 Miles

# Sled Springs OHV Trail Proposal and Road Management Alternative 2

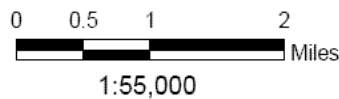


# Sled Springs OHV Trail Proposal and Road Management Alternative 3



## Legend

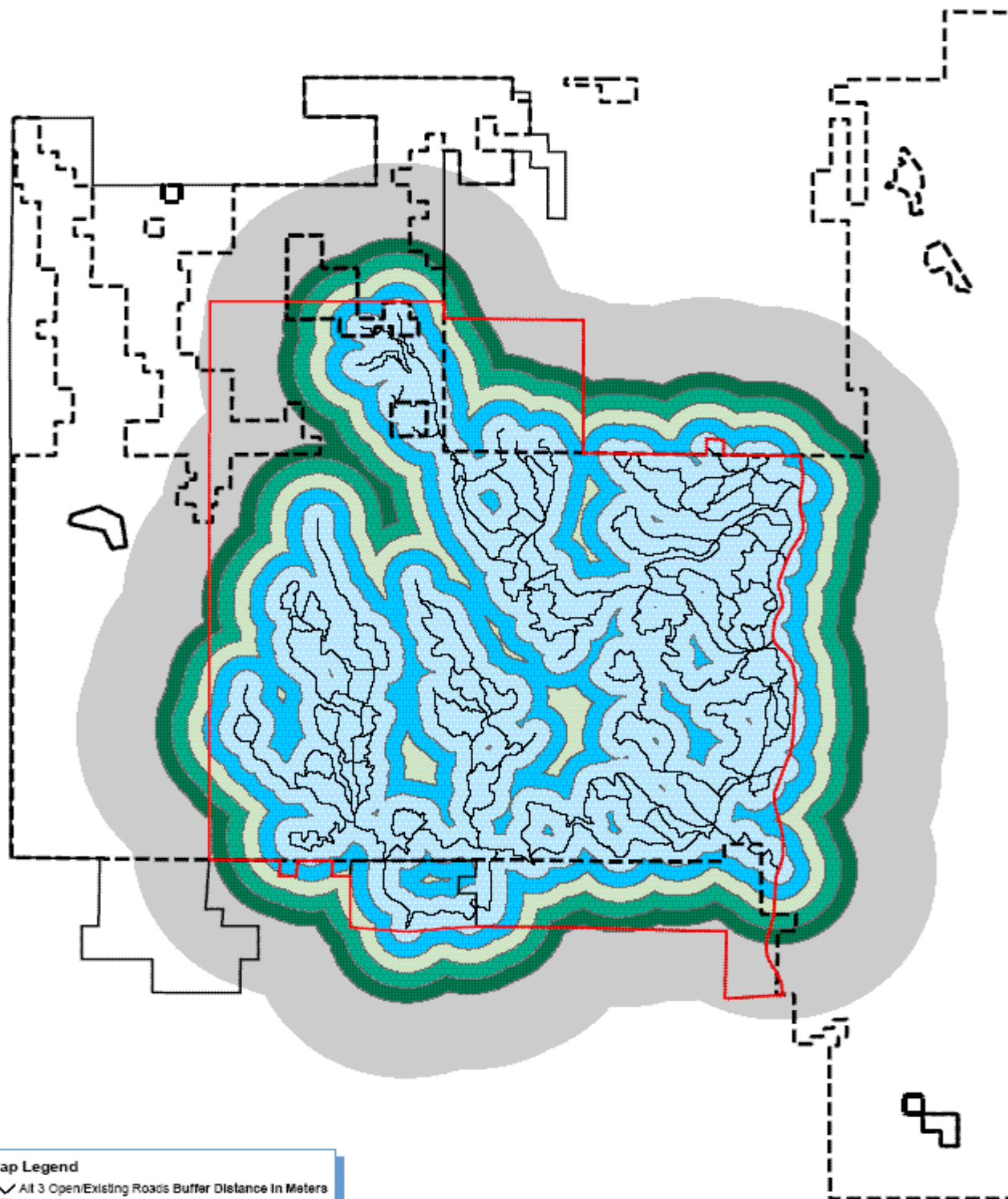
- |                    |                                    |
|--------------------|------------------------------------|
| Stream             | Proposed Staging Area              |
| Highway            | District Boundary                  |
| County Road        | Sled Springs OHV Project Area      |
| Road               | Township & Range                   |
| <b>Trail Type</b>  | Section                            |
| fsv/ohv            | <b>Land Ownership</b>              |
| no motorized       | Forest Service                     |
| ohv only new trail | Private                            |
| ohv only on roads  | Proposed Trail Bridge Installation |



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**Figure 7**  
**Sled Springs OHV Trail Project**  
 Distance Band Analysis  
 Alternative 3

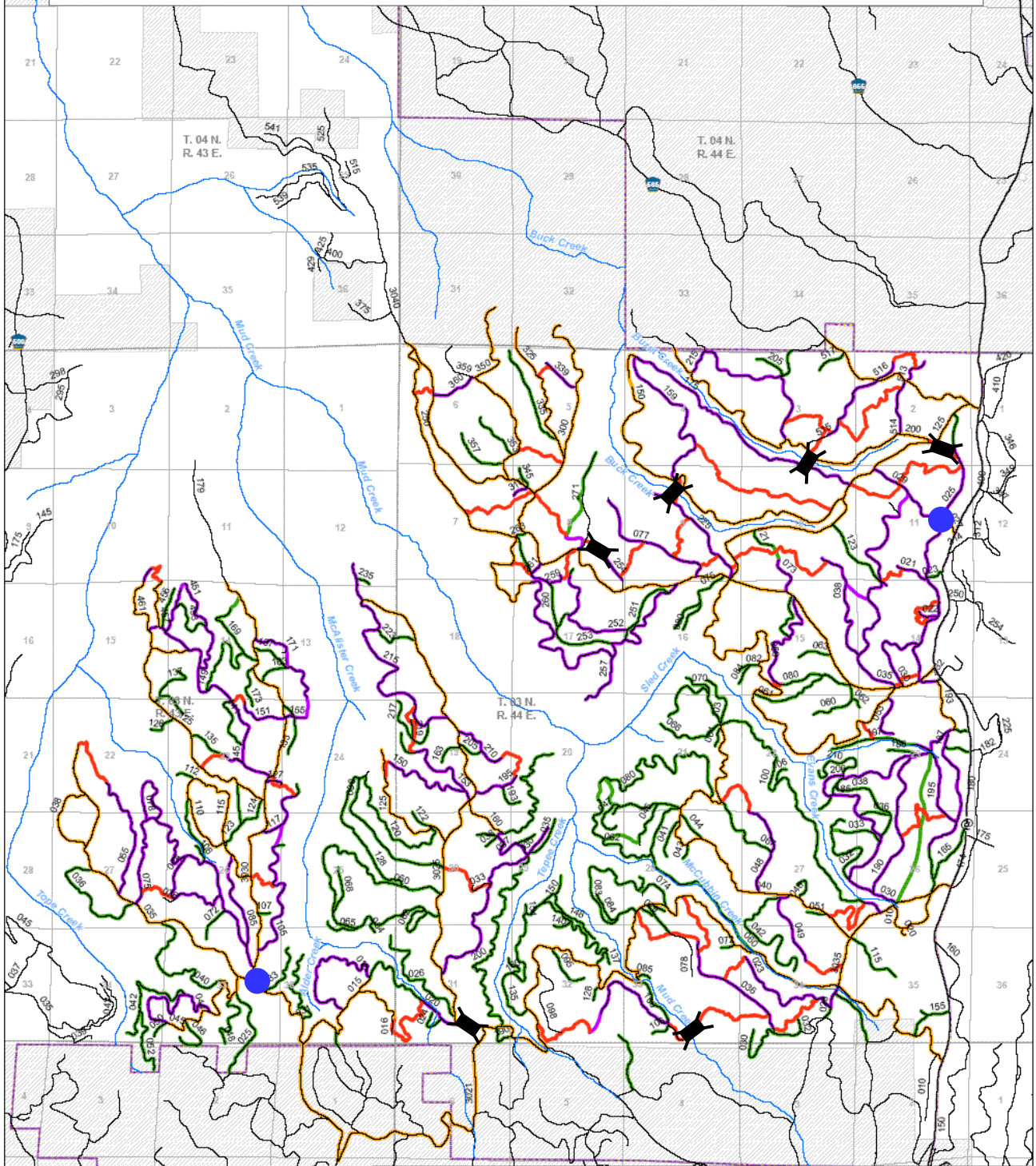


**Map Legend**

	All 3 Open/Existing Roads	Buffer Distance In Meters
	Road Band Analysis Area	0.00 - 360.00
	Sled Springs Project Area	360.00 - 720.00
	National Forest Boundary	720.00 - 1080.00
		1080.00 - 1440.00
		1440.00 - 1800.00
		1800.00 - 3600.00

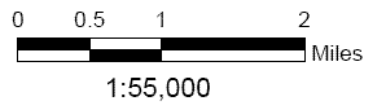
Scale  
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# Sled Springs OHV Trail Proposal and Road Management Alternative 4



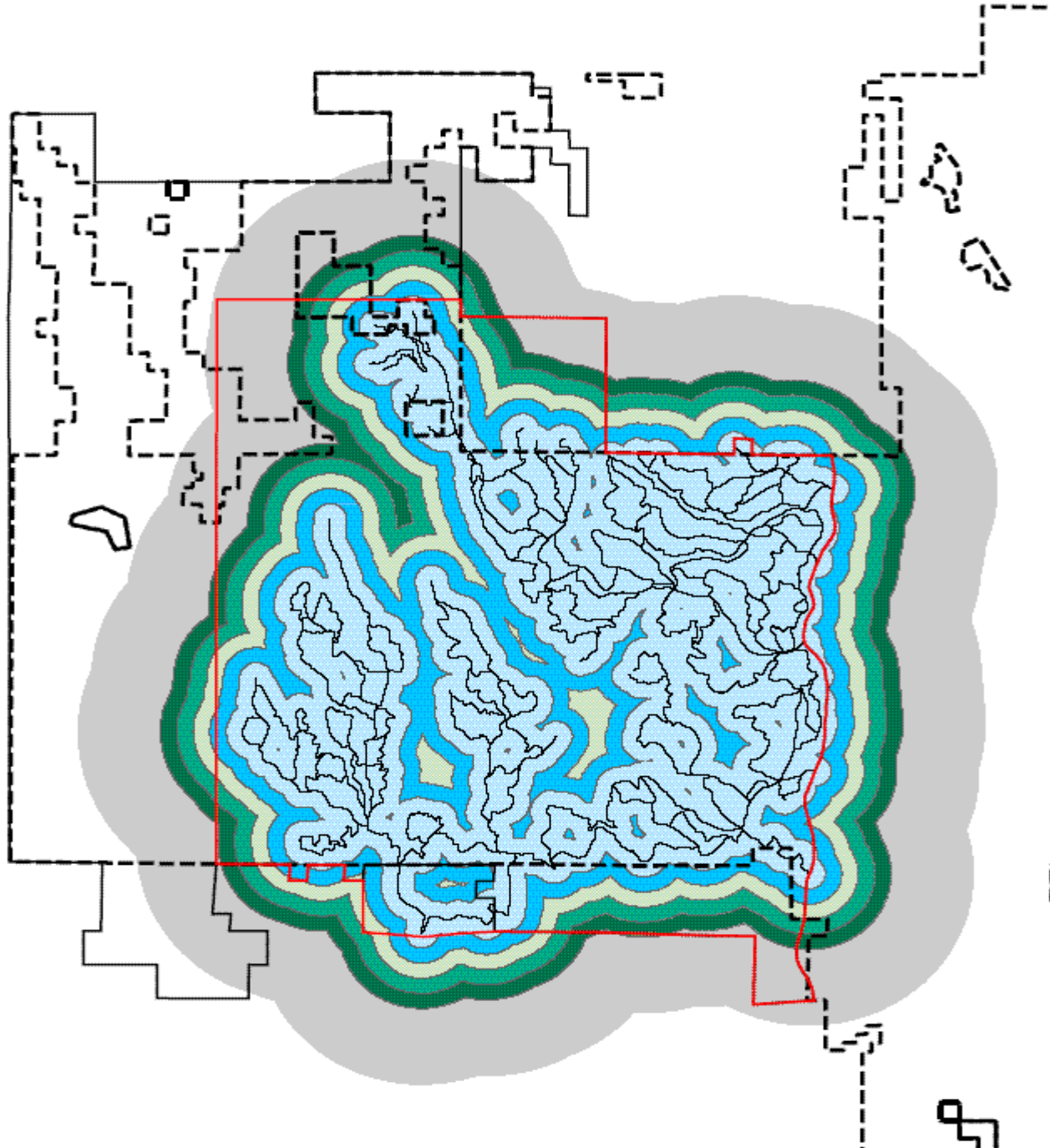
**Legend**

- Stream
- Highway
- County Road
- Road
- Proposed Staging Area
- District Boundary
- Sled Springs OHV Project Area
- Township & Range
- Section
- fsv/ohv
- no motorized
- ohv only new trail
- ohv only on roads
- Proposed Trail Bridge Installation
- Forest Service
- Private














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**Figure 8**  
**Sled Springs OHV Trail Project**  
 Distance Band Analysis  
 Alternative 4



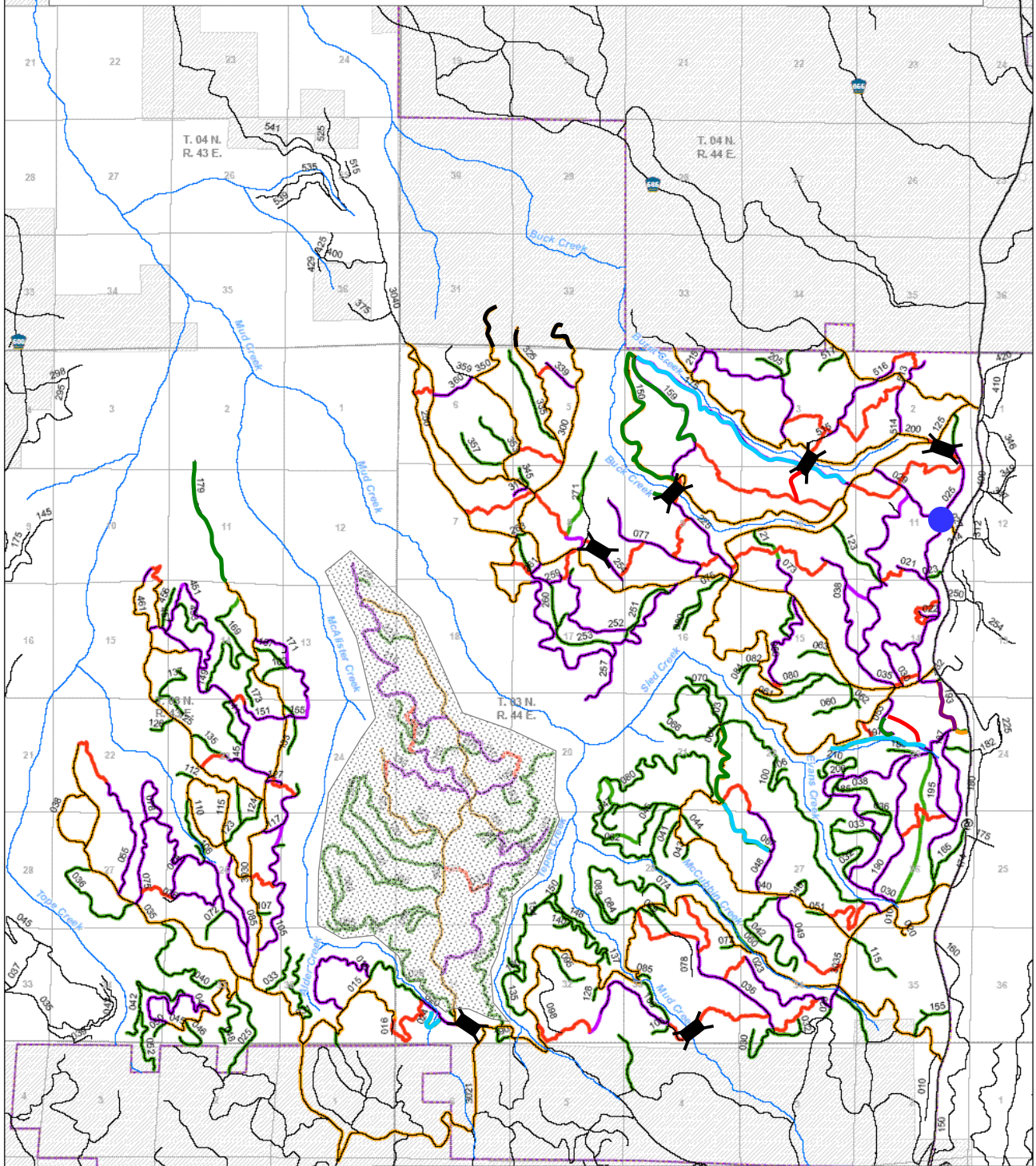
**Map Legend**

	Alt 4 Open/Existing Roads		0.00 - 360.00
	Road Band Analysis Area		360.00 - 720.00
	Sled Springs Project Area		720.00 - 1080.00
	National Forest Boundary		1080.00 - 1440.00
			1440.00 - 1800.00
			1800.00 - 3600.00



 Scale  
1:91,500

# Sled Springs OHV Trail Proposal and Road Management Alternative 5




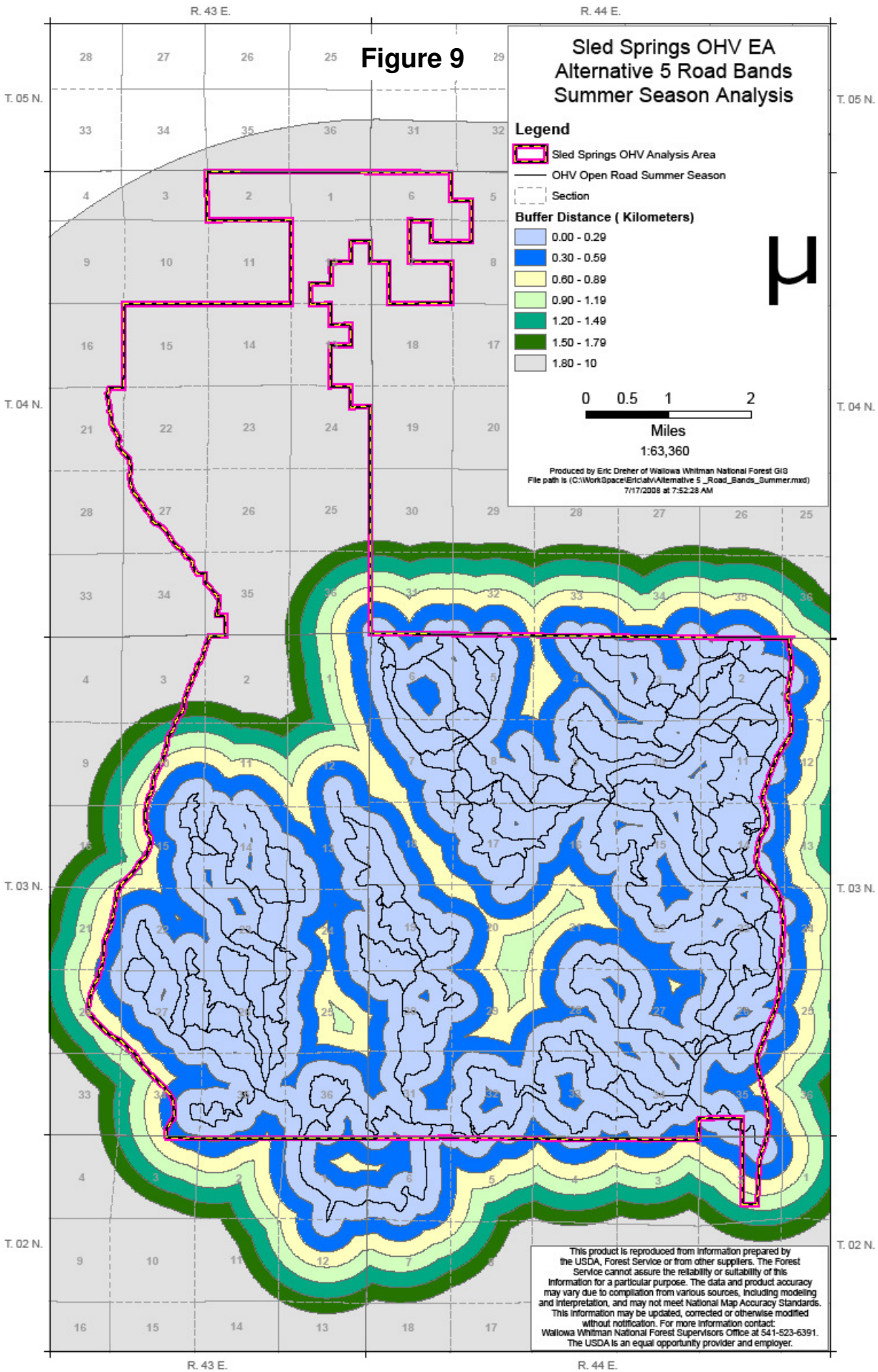
**Legend**

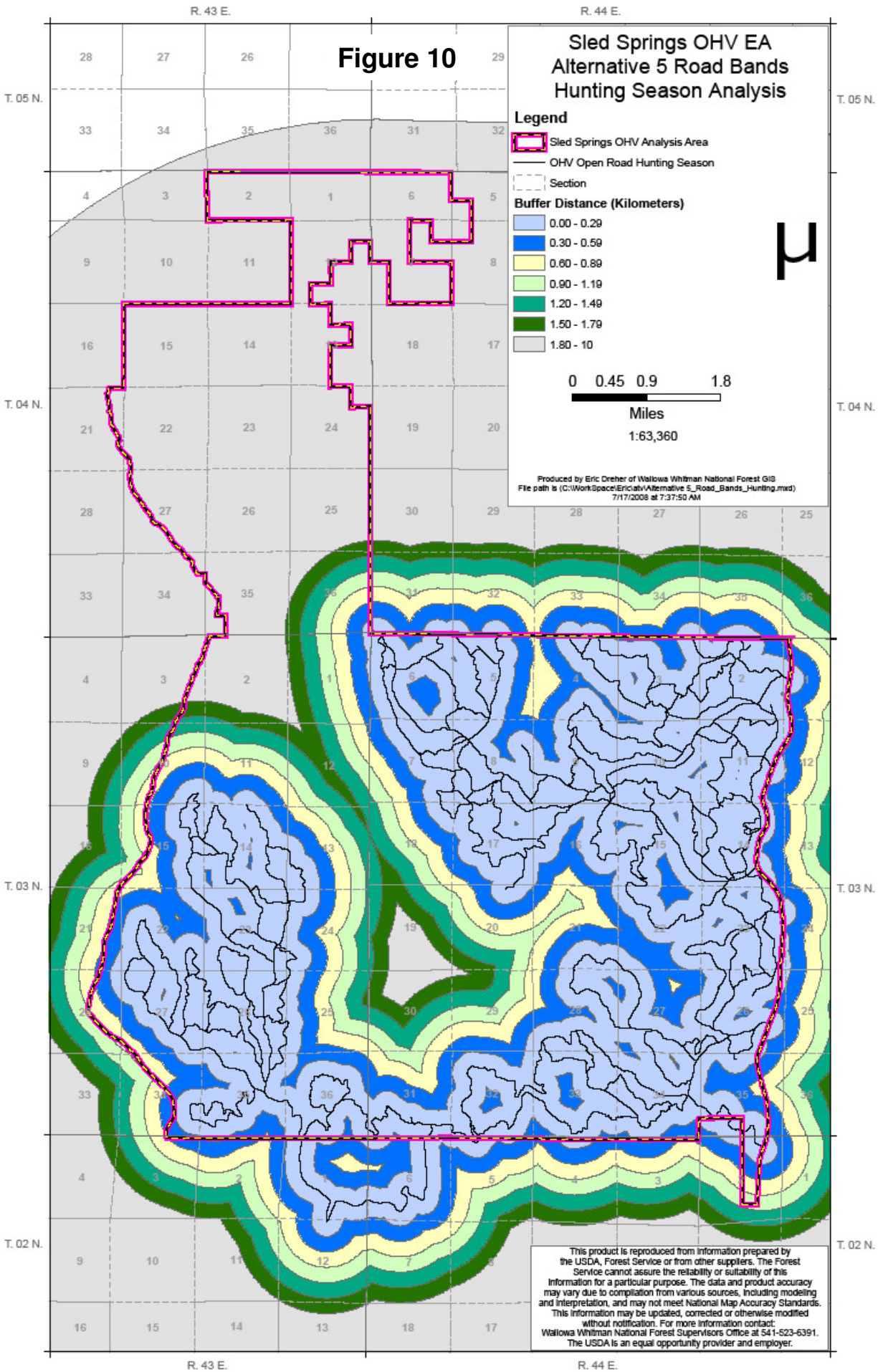
- Stream
- Highway
- County Road
- Road
- Trail Type: fsv/ohv
- Trail Type: no motorized
- Trail Type: ohv only new trail
- Trail Type: ohv only on roads
- District Boundary
- Sled Springs OHV Project Area
- Township & Range
- Section
- Land Ownership: Forest Service
- Land Ownership: Private
- Proposed Staging Area
- Trail Bridge Installation
- Area subject to seasonal closure
- Proposed Road Decommissioning

**Scale:** 0 0.5 1 2 Miles  
1:55,000

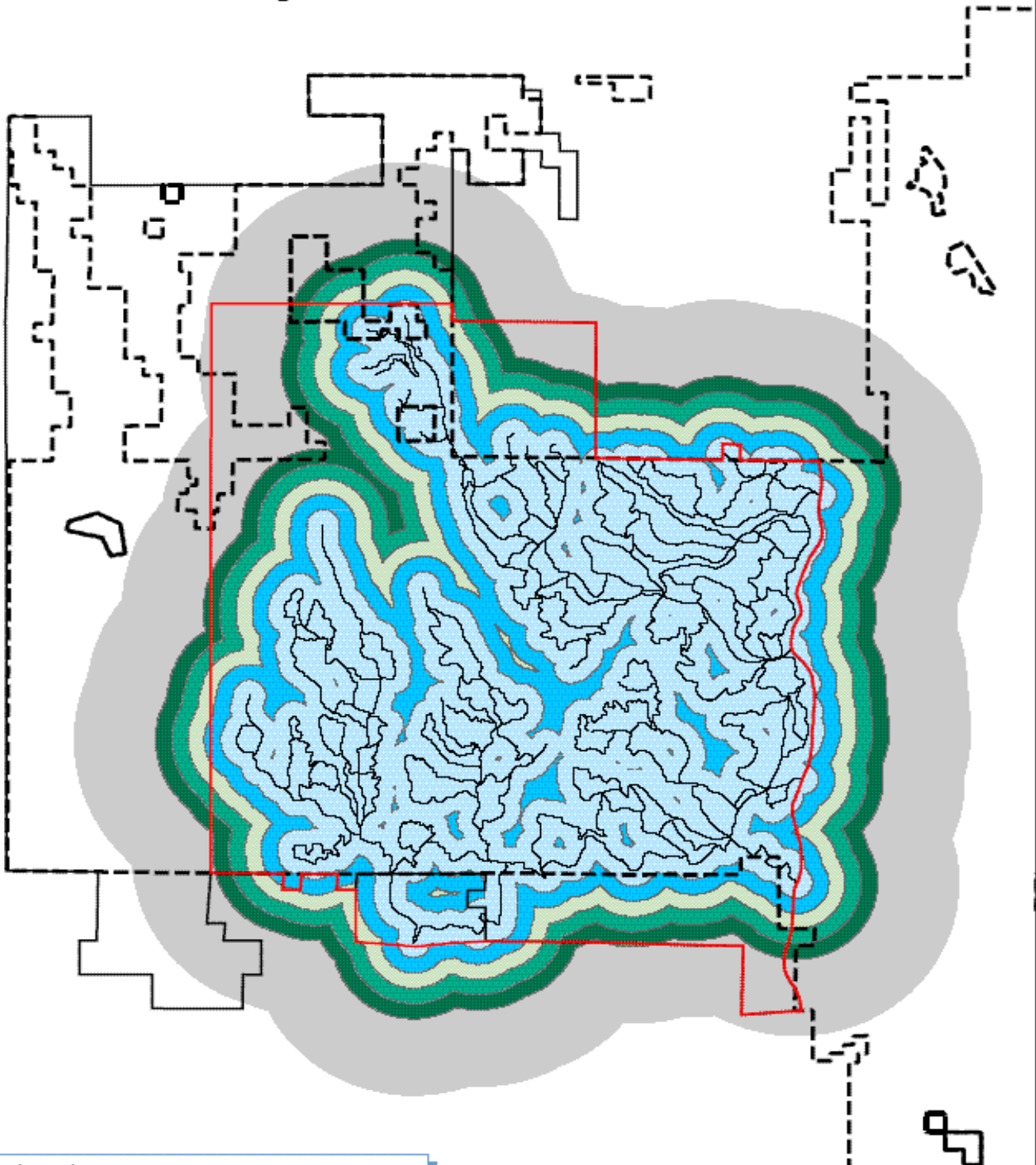
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**Figure 6**  
**Sled Springs OHV Trail Project**  
 Distance Band Analysis  
 Proposed Action Alternative



**Map Legend**

	Proposed Action Open/Existing Roads		0.00 - 360.00
	Road Band Analysis Area		360.00 - 720.00
	Sled Springs Project Area		720.00 - 1080.00
	National Forest Boundary		1080.00 - 1440.00
			1440.00 - 1800.00
			1800.00 - 3600.00

Scale  
1 : 91,500

0 1 2  
Miles