

## 3.8. TRANSPORTATION

### INTRODUCTION

#### SCOPE OF THE ANALYSIS

The focus of this analysis is the transportation system, which consists of both the road and trail systems, within the American River and Crooked River analysis areas. Each analysis area is addressed separately. The current state of the transportation system is presented, followed by discussions of the changes resulting from the proposed action alternatives.

Two indicators, *miles of road* and *miles of trails*, are used to track the effects on the transportation system resulting from the proposed action alternatives. The indicator *miles of road* includes road decommissioning, with corresponding travel access changes, temporary road construction and road reconditioning. *Miles of trails* includes both summer trails and winter snowmobile trails.

#### REGULATORY FRAMEWORK

##### **NATIONAL POLICY:**

Federal regulations at 36 CFR, part 212, provide direction regarding administration of the forest transportation system. These regulations require development of a transportation plan for each forest. The plans provide for the construction, maintenance, and management of forest transportation facilities for the protection, administration, development, and multiple-use management of federally owned lands and resources served.

Forest Service Manual (FSM) 7712 establishes transportation system policy related to disclosure and decision-making issues required by the National Environmental Policy Act (NEPA). This policy includes requirements to perform an area transportation analysis, and to document road management objectives that include design, operation, and maintenance criteria.

Forest Service Handbook (FSH) 7709.55 defines transportation planning as the interdisciplinary process of identifying access needed to effectively and efficiently meet management objectives for a defined area. For project planning, transportation analysis is used to identify and address needed changes in road management objectives.

The Federal “Road Management Policy” published in the Federal Register on January 12, 2001, further defines agency policy regarding transportation systems. Terminology changes announced in the policy reflect the agency’s emphasis on maintaining environmentally sound access. Additional elements of the policy direct agency officials to identify the minimum transportation system needed to administer and protect National Forest System lands, and to document this system through the use of road management objectives.

The Road Management Policy requires the use of a science-based analysis to identify the needed transportation facilities. In an effort to preserve “**flexibility to further describe science-based transportation analysis in conjunction with other ecosystem analyses, and to adjust the process in response to new scientific knowledge of road and resource management interactions,**” a specific analysis process was not prescribed through the policy. While the policy does not establish a specific process as the standard to be used, the agency has produced a document entitled “Roads Analysis: Informing Decisions About Managing the National Forest Transportation System” (August 1999) that is to be used unless an alternative is approved by the Deputy Chief of the Forest Service.

## **NEZ PERCE FOREST PLAN**

The Nez Perce Forest Plan (USDA Forest Service, 1987b) contains guidance related to access and travel management. The goal of the Forest Plan is to provide a stable and cost-efficient transportation system through construction, reconstruction, maintenance, or transportation system management (page II-1.) The Forest Plan also includes direction to provide for standardized access prescriptions and to document travel management as part of the decision making process (USDA Forest Service, 1987a, 1988).

The Record of Decision for the Forest Plan provides guidance related to access management decision-making. It specifies that if we cannot justify leaving a new road open, it will be closed or restricted. Forest Plan Amendment 2 provides further clarification by incorporating Appendix Q, which identifies how motorized recreation and road access is to be managed, by Management Area, and specifies that roads would be considered open, unless signed otherwise.

Forest Plan Amendment 20 (PACFISH) contains additional requirements related to road system management and recreation management. The amendment requires us to document road management objectives, minimize sediment delivery from roads, reconstruct roads where needed to protect aquatic resources, provide for adequate flow capacity at culvert crossings, and provide for fish passage. We must also ensure that recreation facilities and their use does not retard or prevent attainment of Riparian Management Objectives or adversely affect anadromous fish.

### **ANALYSIS METHODS**

The roads information used in the development of the action alternatives was obtained from the Forest's Infrastructure database (INFRA) and from field survey data not previously stored in INFRA. All of the roads proposed for decommissioning as part of this project were identified in the American and Crooked Rivers Roads Analysis (USDA Forest Service, 2003) as not needed for future management of National Forest system lands within the analysis areas. The road data from INFRA is in the form of road management objectives and is presented in tabular form in Appendix F. Issues raised both internally and during the public scoping period were considered in the development of the alternatives. Spatial data is displayed using maps generated with ArcGIS software.

## **3.8.1. AMERICAN RIVER**

### **3.3.1.1. INDICATOR 1 – MILES OF ROAD**

#### **EXISTING CONDITION**

To aid in describing the current state of the road system, road management objectives for each road are presented in tabular form in Appendix F. Road management objectives describe the design, maintenance, and operational characteristics of a road.

A few road management objectives that are of particular interest to the road user are the access prescription code and the objective maintenance level. Access prescription codes are used to designate the extent to which access is allowed by various modes of travel. Current access prescription codes, as well as code definitions, for the roads in the American River and Crooked River analysis areas are presented in Appendix F. In general, access restrictions on forest roads are established for the purpose of protecting forest resources or wildlife habitat.

The objective maintenance level assigned to a particular road dictates the type and degree of maintenance the road receives. This term also provides an indication of the relative ease with which a road can be traveled with various types of vehicles. The maintenance levels range between 1 and 5. Maintenance level 1 applies to roads that are closed to all vehicular traffic and

require only a minimal degree of maintenance. Roads with a maintenance level 5 designation, on the other hand, require the highest degree of maintenance and provide the user with the highest degree of travel comfort. Objective maintenance levels for the roads in the American River and Crooked River analysis areas are presented in Appendix F.

There are approximately 66 miles of inventoried road in the American River analysis area. All of these road miles are under the jurisdiction of the Forest Service. The following four tables summarize the current state of the road system within this analysis area in the form of road management objectives. Refer to Appendix F for definitions of these road management objectives.

**Table 3.44: Current Access Prescriptions – American River Roads**

Access Prescription Code	Length of Road (Miles)	Percent of Total Road Miles
Open	6.2	9.4
Y-2	5.0	7.5
Y-3	32.2	48.4
Y-4	21.3	32.0
B	1.8	2.7

**Table 3.45 Objective Maintenance Levels – American River Roads**

Objective Maintenance Level	Length of Road (Miles)	Percent of Total Road Miles
1	57.4	86.4
2	1.0	1.6
3	6.1	9.2
D	1.8	2.7

**Table 3.46: Traffic Service Levels – American River Roads**

Traffic Service Levels	Length of Road (Miles)	Percent of Total Road Miles
C	18.1	27.3
D	46.5	70.0
NA	1.8	2.7

**Table 3.47: Road Surface Type – American River Roads**

Road Surface Type	Length of Road (Miles)	Percent of Total Road Miles
Aggregate	28.8	43.4
Native Material	37.6	56.6

Regarding access prescription codes, of particular interest to many is access on roads with highway vehicles. For the American River analysis area, the **Open** access prescription code is the only code that allows access with highway vehicles. Currently, 9.4 percent of the total miles of road are open to highway vehicles. Access on the remaining length of road is restricted year-round for the reasons stated previously in the subsection entitled **Scope of the Analysis**. Refer to map 14a for a display of roads in the American River analysis area that are open, either year-round or seasonally, to highway vehicles.

## **ENVIRONMENTAL EFFECTS**

### **ALTERNATIVE A – NO ACTION ALTERNATIVE**

With Alternative A, the road system, including the road management objectives, in the American River analysis area would remain much as it currently is.

### **ALTERNATIVES B, C, D, AND E**

#### ***ROAD DECOMMISSIONING***

All roads proposed for decommissioning with these alternatives were identified in the American and Crooked Rivers Roads Analysis (USDA Forest Service, 2003) as not required for future management needs. These roads were selected for decommissioning primarily because of the resulting benefit to watershed health by returning the landscape to near its natural state. Refer to Appendix F for a list of the roads proposed for decommissioning by alternative in the American River analysis area, and Appendix D for the method of decommissioning recommended for each of these roads. Refer to maps 2a, 3a, 4a, 5a, and 6 for graphic displays of the roads proposed for decommissioning. A summary of the costs associated with the proposed road decommissioning is presented in section 3.12 (Socio-Economics).

The physical process, or method, of decommissioning (referred to as *decommissioning level* in Appendix D) depends on the condition of the road template, the magnitude of the side slope on which the road is located, the proximity of the road to streams, and cost. This process can range from simply abandoning the road to removing the road template completely, including removal of drainage structures, and recontouring the landscape. In general, the preferred method is to remove the road template and recontour the landscape, because this method is most effective in removing the road as a source of sediment and restoring the natural hydrologic function of the watershed. It is, however, the most costly method. If the road is located on relatively flat terrain, is not close to a stream, and is substantially overgrown with vegetation, abandonment may be a better option.

In addition to the two decommissioning methods just discussed, there is a category used in Appendix D to describe an intermediate level of decommissioning. This category, called **Varied** (for varied treatments), can include removal of drainage structures, decompaction of the roadbed, or a combination of both. If the roadbed is decompacted, seed and fertilizer would be applied to reestablish vegetative cover. The **Varied** category can also include limited amounts of abandonment or recontouring.

Road management objectives for only the roads proposed for decommissioning in each of these alternatives would change. The road management objective of primary interest to most road users is the access prescription code, which would change to “B” – indicating a year-round restriction to use by all modes of travel, except travel by foot. The following table summarizes the length of road proposed for decommissioning, as well as the effect of the decommissioning on travel access, for each alternative.

**Table 3.48: Road Decommissioning and Corresponding Access Change – American River Roads**

Item	Alternative B	Alternative C	Alternative D	Alternative E
Road Length Decommissioned (mi)	5.9	8.1	9.2	20.2
Road Open to Highway Vehicles (mi)	6.2	6.2	6.2	6.2
Decrease in Access with Highway Vehicles (mi)	0	0	0	0

For each alternative, there is no change in travel access with highway vehicles, because all of the road miles proposed for decommissioning are currently closed to highway vehicles.

**ROAD RECONDITIONING AND TEMPORARY ROAD CONSTRUCTION**

Field surveys were conducted to determine the condition of the roads in the analysis area and the maintenance needs required to prepare the roads for access to the treatment areas. These maintenance needs were placed into three categories, depending on the level of work effort required: minor reconstruction/maintenance, moderate reconstruction, and major reconstruction. The primary difference between these categories is the amount of earthwork involved.

**Minor Reconstruction/Maintenance:** This category requires the least level of work effort and involves grading and shaping of the roadway and minor drainage work (such as adding waterbars and replacing or adding a few culverts, generally not on live streams).

**Moderate Reconstruction:** In addition to the activities considered under minor reconstruction/maintenance, moderate reconstruction may involve the use of a bulldozer to clear a heavily brushed-in roadway (the bulldozer would remove the earth to a greater depth than simply grading the road surface), significant drainage work (including the replacement of culverts at live water crossing), and some widening along the road (not continuous).

**Major Reconstruction:** In addition to the activities considered under minor reconstruction/maintenance and moderate reconstruction, major reconstruction may involve widening or realigning much of the length of a road or substantial replacement of drainage structures. These activities typically result in new cutslopes, fillslopes, or surfacing.

The roadwork proposed with any of the action alternatives would be done either to prepare a road for timber hauling or to improve the environmental health of the watershed. There is some overlap, however, in that some of the road work needed for timber hauling would also benefit the health of the watershed. The roadwork needed to prepare roads for timber hauling is the primary focus of this section. Refer to Section 3.2 (Watershed) for further discussion of the roadwork proposed for the purpose of watershed health improvement and Appendix D for descriptions and locations of this roadwork.

No permanent, new road construction is proposed with any of the action alternatives. Temporary roads would be constructed where needed for access to treatment areas. All temporary roads would be decommissioned no later than three years after initial construction. Refer to Chapter 2 for additional information regarding measures for mitigating the effects of temporary road construction. The following table summarizes the roadwork required for timber hauling and the temporary road construction by alternative. Refer to Section 3.12 (Socio-Economics) for a summary of the costs associated with the proposed roadwork, including the construction and subsequent decommissioning of temporary roads.

**Table 3.49: Roadwork Activity by Alternative – American River Roads**

Activity	Alternative B	Alternative C	Alternative D	Alternative E
Minor Reconstruction/Maintenance (mi)	25.0	24.6	26.0	21.2
Moderate Reconstruction (mi)	3.7	4.5	6.2	3.7
Major Reconstruction (mi)	1.5	1.7	1.7	0.9
Temporary Road construction (mi)	3.6	8.1	8.1	1.9

### 3.8.1.2. INDICATOR 2 – MILES OF TRAILS

#### EXISTING CONDITION

Historically, trails in the area were primarily developed for access to mining claims, private lands, fire suppression activities and Forest Service administrative uses. Most trails were built to accommodate pack and saddle stock and were the primary access routes in the American River drainage.

Currently, the majority of the trail system is utilized for recreation purposes. There are approximately 32.5 miles of system trails within the American River project area. The Boundary National Recreation Trail (NRT) is located on the north-east project area boundary. This trail is built to ATV standards and both motorized and non-motorized users enjoy the scenic area. Portions of the NRT trail were utilized as a fireline for the Slim’s fire of 2003. During the summer of 2004, work is planned to restore the trail to the design standard for ATV’s, including the installation of additional drainage structures. In the remainder of the American River project area, system trails are primarily used by ATV(s), motorbikes, hikers, and pack/saddle stock.

The following table displays the system trails in the American River project area, their length, current management objective and restrictions:

**Table 3.50– System Trails – American River**

Trail Number	Trail Name	Trail Length	Current Management Objective/Restriction
509	Otto	6.0 miles (1 mile in project area)	Open to all motorized trail vehicles, closed to highway vehicles. Managed for motorbike and snowmobile uses.
510	Flint Creek	5.5 miles (all within project area)	Closed to all motorized vehicles, except snowmobiles over snow. Managed for pack and saddle use.
830	Kirk’s Fork	6.0 miles (1.5 miles in project area)	Closed to highway vehicles and ATV’s. Open to trail bikes and snowmobiles. Managed for pack and saddle and motorbike use.
831	Flatiron Ridge	2.5 miles (all miles in project area)	Open to all motorized trail vehicles, closed to highway vehicles. Managed for pack and saddle and motorbike use.
832	East Fork American River	7.7 miles (.5 miles in project area)	From junction with Trail 835 to junction with Trail 831, open to all motorized trail vehicles, closed to highway vehicles. Managed for ATV use.
		(5.7 miles in project area)	From Trail 831 junction to Trail 510 junction,

Trail Number	Trail Name	Trail Length	Current Management Objective/Restriction
		(Total 6.2 miles in project area)	Closed to all motorized uses. Managed for pack and saddle stock.
835	Boundary Trail NRT	9.5 miles (7.0 miles in project area)	Open to all motorized trail vehicles, closed to highway vehicles. Managed for ATV use.
836	American River	12.0 miles (2 miles in project area)	Open to all motorized trail vehicles. Managed for pack and saddle use.
846	Lower Kirk's Fork	3.0 miles (all within project area)	Open to all motorized trail vehicles. Managed for ATV use.
848	Red Horse Ridge	3.0 miles (2 miles in project area)	Open to all motorized trail vehicles. Managed for pack and saddle use.
852	Lower East Fork American River	2.0 miles (1/4 miles within project area)	No restrictions. Managed for hiker use.
887	Box Sing	1.6 miles (all within project area)	Open to all motorized trail vehicles. Managed for pack and saddle and motorbike use
TOTAL MILES In project area		32.5	

Depending on trail budgets, generally these trails receive trail opening and maintenance either annually or every other year.

Of the 32.5 miles of trail within the American River project area, the following table displays the number of miles open to different trail users:

**Table 3.51 – Miles of Trails Open to Trail Users – American River**

Open to ATV	Open to Motorcycles	Open to Foot and Horse	Open to Snowmobiles
19.55 miles	21.05 miles	32.5 miles	26.55 miles

Generally, there is an increasing demand from user groups for motorized trail opportunities. Motorized uses are increasing in the area. Most of the existing trail system was designed for pack and saddle stock or 2-wheeled motorized vehicles. Unauthorized ATV use is currently occurring on Trails 510 and 830. The increased use of 4-wheelers is widening these trails, which is causing resource damage.

The winter trail system uses portions of the road system to provide a network of groomed snowmobile trails. This system is groomed regularly between December and April under a cooperative agreement between Idaho Department of Parks and Recreation, Idaho County and the Nez Perce Forest. The American River project area portion of this groomed system is 7.2 miles (Road 443 – American River-Selway Falls), and connects with the Newsome Creek drainage, other portions of the American River drainage, Clearwater, Kooskia, Red River and Dixie communities, providing a network of groomed snowmobile trails.

**ENVIRONMENTAL EFFECTS**

**ALTERNATIVE A – NO ACTION ALTERNATIVE**

**DIRECT AND INDIRECT**

The number of miles of trails available to the public would not change under this alternative. However, the ability to use the trail system may be physically restricted without an increase in user maintenance efforts due to limited Agency funding for trail maintenance

Under this alternative, as dead and dying trees fall across the system trails, trail maintenances costs will likely increase due to the increase in the number of trees down per mile. Even with annual maintenance occurring, it will be likely the trail users will need to be prepared to cut trees out in order to utilize the trail system.

The likelihood of increased wildfire occurrence under this alternative, will also increase the cost of trail maintenance. Trail damage from fire normally results in holes in the trail tread due to tree roots burning out; increase erosion due to the lack of vegetation resulting in the need for more erosion control structures; increase in the number of down trees over the trail; signs and erosion control devices will need to be replaced due to fire damage.

**ALTERNATIVE B**

**DIRECT AND INDIRECT**

***SUMMER TRAIL SYSTEM***

Existing trail-related activities and use within the analysis area would remain the same.

Under this alternative, seven harvest units lie across Trails 510, 830, 831, 832 and 848 and seven units are close or adjacent to these same trails. One temporary road crosses Trail 510 and there are two temporary road crossings of Trail 848. These locations are summarized on the following table:

**Table 3.52 – Alternative B Harvest Units and Trails – American River**

<b>Trail Number</b>	<b>Units Across Trail</b>	<b>Units Adjacent or Close to Trail</b>	<b>Temporary Road Crossing of Trail</b>
510	156 & 169	523	Road accessing Unit 156
830	130		
831	505.1, 503.9 & 505.9		
832	510	506 & 507	
848		116, 117, 121 & 122	Access to Unit 121 off Rd 9832 and Unit 113 access off Rd 9832A

The harvest activity will change the character of the trail as it goes through the harvest units as the canopy is removed. The harvest activity will open up vistas from the trails where units are across or adjacent to the trails. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along trails, alternative trail access can be provided as follows:

- Trail 831 – Trail 830 can provide alternate access except for ATV use.

- Trail 510 – Road 9812 from the junction with Road 443 to the SW ¼ of section 26 would provide an alternate temporary trailhead to avoid the section of Trail 510 with harvest units.
- Trail 830 – Road 1810 to the SW ¼ of Section 8 would provide a temporary trailhead to avoid the section of Trail 830 with harvest units.
- Trails 832 and 848 – No apparent alternative routes are available during harvest activities.
- Trails 509, 835, 836, 846, 852 and 887 are not affected by any harvest activity.

Under the Restoration Package (Appendix D) for this alternative

- Trail 848 would be evaluated for potential improvement needs. The trail was designed for pack and saddle stock use and current uses include ATV's.
- Trails 887 and 830 crossings of Box Sing Creek would be reconstructed to reduce sediment. The current access prescription for Trail 887 would be changed to restrict ATV use. The trail tread is 18" wide and does not accommodate ATV use, but is open to ATV's. This would reduce the number of miles of trail open to ATV from 19.55 to 17.95 miles

**SNOWMOBILE TRAIL SYSTEM**

Nine harvest units lie adjacent to Road 443 groomed snowmobile route. These are Units 151, 151.3, 151.2, 154, 530, 534, 536, 537 and 163. Some of these units will contribute to future play-areas for snowmobiles until such time as regeneration is re-established.

Due to the position of Unit 536 on the slope and its relation to the groomed route, there is an increased risk of drifting snow accumulating on the groomed route in this location. This could result in the need for the placement or construction of a snow drift fence to reduce the accumulation of snow on the trail.

During harvest activity, if winter hauling occurs on Road 443, it would need to be restricted for snowmobiling during timber sale activities. This would result in a short-term reduction in the number of miles of snowmobile trail available for use (7.2 miles). The American River-Selway River divide portion of the groomed system could be accessed for snowmobile use via the Erickson Ridge/Table Meadows Road 283, and Elk Summit Road 1199.

Under work proposed with the restoration package, it is recommended the access prescription for Trail 887 be changed from **open to ATV use** to **closed to ATV use**. The trail has an 18-inch tread allowance, which does not accommodate ATV's. ATV use has not been established on the trail. The trail would remain open for foot, stock, and motorcycle uses. Closing Trail 887 to ATV use would not restrict existing use, but would reflect a reduction (under this alternative) in the number of miles of trail open to ATVs by 1.6 miles, as displayed in the following table:

**Table 3.53 – Alternative B, Change in Access Prescription for Trail 887**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	19.55	21.05	32.5	26.55	7.2
Alternative B	17.95	21.05	32.5	26.55	If winter hauling occurs on Road 443, these miles will not be available during activity

**ALTERNATIVE C**

**DIRECT AND INDIRECT**

***SUMMER TRAIL SYSTEM***

Under this alternative, 12 harvest units lie across Trails 510, 830, 831, 832 and 848 and nine units are close or adjacent to these same trails. There a temporary road crossing once each of Trail 510 and Trail 832, a temporary road is adjacent to Trail 830, and Trail 848 is crossed by temporary roads twice. These locations are summarized on the following table:

**Table 3.54 – Alternative C Harvest Units and Trails – American River**

<b>Trail Number</b>	<b>Units Across Trail</b>	<b>Units Adjacent or Close to Trail</b>	<b>Temporary Road Crossing of Trail</b>
510	156 & 169		Road accessing Unit 156
830	130	128 & 129	At corner of Units 130 and 129
831	503, 503.9 & 505.1, 510	505, 506 & 507	
832	509, 510, 510.9, 512 & 513	506 & 507	Accessing Units 509, 510.9, 512 & 513 one crossing
848	112	116, 117, 121 & 122	Access to Unit 113 from junction with Rd 9832A and Access to Unit 121 & 122 off Rd 9832

The harvest activity will change the character of the trail as it goes through the harvest units as the canopy is removed. The harvest activity will open up vistas from the trails where units are across or adjacent to the trails. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along trails, alternative trail access can be provided as follows:

- Trail 831 – Trail 830 can provide alternate access except for ATV use.
- Trail 510 – Road 9812 from the junction with Road 443 to the SW ¼ of section 26 would provide an alternate temporary trailhead to avoid the section of Trail 510 with harvest units.
- Trail 830 – Road 1810 to the SW ¼ of Section 8 would provide a temporary trailhead to avoid the section of Trail 830 with harvest units.
- Trails 832 and 848 – No apparent alternative routes are available during harvest activities.
- Trails 509, 835, 836, 846, 852 and 887 are not affected by any harvest activity

Under the Restoration Package (Appendix D) for this alternative

- Trail 848 would be evaluated for potential improvement needs. The trail was designed for pack and saddle stock use and current uses include ATV's.
- Trails 887 and 830 crossings of Box Sing Creek would be reconstructed to reduce sediment. The current access prescription for Trail 887 would be changed to restrict ATV use. The trail tread is 18" wide and does not accommodate ATV use, but is open to ATV's. This would reduce the number of miles of trail open to ATV from 19.55 to 17.95 miles

**SNOWMOBILE TRAIL SYSTEM**

Five harvest units lie adjacent to Road 443 groomed snowmobile route. These are Units 151, 151.2, 151.3, 154 and 163. Some of these units will contribute to future play-areas for snowmobiles until such time as regeneration is re-established.

During harvest activity, if winter hauling occurs on Road 443, it would need to be restricted for snowmobiling during timber sale activities. This would result in a short-term reduction in the number of miles of snowmobile trail available for use (7.2 miles). The American River-Selway River divide portion of the groomed system could be accessed for snowmobile use via the Erickson Ridge/Table Meadows Road 283, and Elk Summit Road 1199.

Under work proposed with the restoration package, it is recommended the access prescription for Trail 887 be changed from **open to ATV use** to **closed to ATV use**. The trail has an 18-inch tread allowance, which does not accommodate ATV's. ATV use has not been established on the trail. The trail would remain open for foot, stock, and motorcycle uses. Closing Trail 887 to ATV use would not restrict existing use, but would reflect a reduction (under this alternative) in the number of miles of trail open to ATVs by 1.6 miles, as displayed in the following table:

**Table 3.55 – Alternative C, Change in Access Prescription for Trail 887**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	19.55	21.05	32.5	26.55	7.2
Alternative B	17.95	21.05	32.5	26.55	If winter hauling occurs on Road 443, these miles will not be available during activity

**ALTERNATIVE D**

**DIRECT AND INDIRECT**

**SUMMER TRAIL SYSTEM**

Under this alternative, 15 harvest units lie across Trails 510, 830, 831, 832 and 848 and ten units are close or adjacent to these same trails. There a temporary road crossing once each of Trail 510 and Trail 832, a temporary road is adjacent to Trail 830, and Trail 848 is crossed by temporary roads twice. These locations are summarized on the following table:

**Table 3.56 – Alternative D, Harvest Units and Trails – American River**

Trail Number	Units Across Trail	Units Adjacent or Close to Trail	Temporary Road Crossing of Trail
510	156 & 169	523	Road accessing Unit 156
830	130	128 & 129	Adjacent to trail at corner of Units 130 and 129
831	501, 503, 503.9, 504 505.1 & 510	505, 506 & 507	
832	509, 510, 510.9, 512 & 513	506 & 507	Accessing Units 509, 510.9, 512 & 513 one crossing
848	112	116, 117, 121 & 122	Access to Unit 113 from junction with Rd 9832A and Access to Unit 121 & 122 off Rd 9832

The harvest activity will change the character of the trail as it goes through the harvest units as the canopy is removed. The harvest activity will open up vistas from the trails where units are across or adjacent to the trails. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along trails, alternative trail access can be provided as follows:

- Trail 831 – Trail 830 can provide alternate access except for ATV use.
- Trail 510 – Road 9812 from the junction with Road 443 to the SW ¼ of section 26 would provide an alternate temporary trailhead to avoid the section of Trail 510 with harvest units.
- Trail 830 – Road 1810 to the SW ¼ of Section 8 would provide a temporary trailhead to avoid the section of Trail 830 with harvest units.
- Trails 832 and 848 – No apparent alternative routes are available during harvest activities.
- Trails 509, 835, 836, 846, 852 and 887 are not affected by any harvest activity

Under the Restoration Package (Appendix D) for this alternative

- Trail 848 would be evaluated for potential improvement needs. The trail was designed for pack and saddle stock use and current uses include ATV's.
- Trails 887 and 830 crossings of Box Sing Creek would be reconstructed to reduce sediment. The current access prescription for Trail 887 would be changed to restrict ATV use. The trail tread is 18" wide and does not accommodate ATV use, but is open to ATV's. This would reduce the number of miles of trail open to ATV from 19.55 to 17.95 miles

**SNOWMOBILE TRAIL SYSTEM**

Ten harvest units lie adjacent to Road 443 groomed snowmobile route. These are Units 151, 151.2, 151.3, 154, 163, 530, 531, 534, 536 and 537. Some of these units will contribute to future play-areas for snowmobiles until such time as regeneration is re-established.

During harvest activity, if winter hauling occurs on Road 443, it would need to be restricted for snowmobiling during timber sale activities. This would result in a short-term reduction in the number of miles of snowmobile trail available for use (7.2 miles). The American River-Selway River divide portion of the groomed system could be accessed for snowmobile use via the Erickson Ridge/Table Meadows Road 283, and Elk Summit Road 1199.

Due to the position of Unit 536 on the slope and its relation to the groomed route, there is an increased risk of drifting snow accumulating on the groomed route in this location. This could result in the need for the placement or construction of a snow drift fence to reduce the accumulation of snow on the trail.

Under work proposed with the restoration package, it is recommended the access prescription for Trail 887 be changed from **open to ATV use** to **closed to ATV use**. The trail has an 18-inch tread allowance, which does not accommodate ATV's. ATV use has not been established on the trail. The trail would remain open for foot, stock, and motorcycle uses. Closing Trail 887 to ATV use would not restrict existing use, but would reflect a reduction (under this alternative) in the number of miles of trail open to ATVs by 1.6 miles, as displayed in the following table:

**Table 3.57 – Alternative D, Change in Access Prescription for Trail 887**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	19.55	21.05	32.5	26.55	7.2
Alternative D	17.95	21.05	32.5	26.55	If winter hauling occurs on Road 443, these miles will not be available during activity

**ALTERNATIVE E**

**DIRECT AND INDIRECT**

***SUMMER TRAIL SYSTEM***

Under this alternative, two harvest units lie across Trails 510 and five units are close or adjacent to these same trails. There is one temporary road crossing Trail 510. These locations are summarized on the following table:

**Table 3.58 – Alternative E, Harvest Units and Trails – American River**

Trail Number	Units Across Trail	Units Adjacent or Close to Trail	Temporary Road Crossing of Trail
510	156 & 169	523	Road accessing Unit 156
831		505, 506, & 507	
832		506 & 507	
848		115	

The harvest activity will change the character of the trail as it goes through the harvest units as the canopy is removed. The harvest activity will open up vistas from the trails where units are across or adjacent to the trails. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along trails, alternative trail access can be provided as follows:

- Trail 831 – Trail 830 can provide alternate access except for ATV use.

- Trail 510 – Road 9812 from the junction with Road 443 to the SW ¼ of section 26 would provide an alternate temporary trailhead to avoid the section of Trail 510 with harvest units.
- Trail 830 – Road 1810 to the SW ¼ of Section 8 would provide a temporary trailhead to avoid the section of Trail 830 with harvest units.
- Trails 832 and 848 – No apparent alternative routes are available during harvest activities.
- Trails 509, 830, 835, 836, 846, 852 and 887 are not directly affected by any harvest activity.

Under the Restoration Package (Appendix D) for this alternative:

- Trail 848 would be evaluated for potential improvement needs. The trail was designed for pack and saddle stock use and current uses
- Trails 887 and 830 crossings of Box Sing Creek would be reconstructed to reduce sediment. The current access prescription for Trail 887 would be changed to restrict ATV use. The trail tread is 18" wide and does not accommodate ATV use, but is open to ATV's. This would reduce the number of miles of trail open to ATV from 19.55 to 17.95 miles
- Trail 510 would receive trail tread improvement to the first 1 miles to decrease surface erosion and sedimentation. Barriers would also be installed at the trailhead and at the junction with Road 9812 to limit ATV access to this trail, which is closed to all motorized trail vehicles except snowmobiles over snow.

### **SNOWMOBILE TRAIL SYSTEM**

Eight harvest units lie adjacent to Road 443 groomed snowmobile route. These are Units 151, 151.2, 151.3, 154, 530, 534, 536 and 537. Some of these units will contribute to future play-areas for snowmobiles until such time as regeneration is re-established.

During harvest activity, if winter hauling occurs on Road 443, it would need to be restricted for snowmobiling during timber sale activities. This would result in a short-term reduction in the number of miles of snowmobile trail available for use (7.2 miles). The American River-Selway River divide portion of the groomed system could be accessed for snowmobile use via the Erickson Ridge/Table Meadows Road 283, and Elk Summit Road 1199.

Due to the position of Unit 536 on the slope and its relation to the groomed route, there is an increased risk of drifting snow accumulating on the groomed route in this location. This could result in the need for the placement or construction of a snow drift fence to reduce the accumulation of snow on the trail.

Under work proposed with the restoration package, it is recommended the access prescription for Trail 887 be changed from **open to ATV use** to **closed to ATV use**. The trail has an 18-inch tread allowance, which does not accommodate ATV's. ATV use has not been established on the trail. The trail would remain open for foot, stock, and motorcycle uses. Closing Trail 887 to ATV use would not restrict existing use, but would reflect a reduction (under this alternative) in the number of miles of trail open to ATVs by 1.6 miles, as displayed in the following table:

**Table 3.59 – Alternative E, Change in Access Prescription for Trail 887**

<b>Alternative</b>	<b>Open to ATV (mi)</b>	<b>Open to Motorcycles (mi)</b>	<b>Open to Foot and Horse (mi)</b>	<b>Open to Snowmobiles (mi)</b>	<b>Groomed Snowmobile System (mi)</b>
Existing Condition – Alternative A	19.55	21.05	32.5	26.55	7.2
Alternative E	17.95	21.05	32.5	26.55	If winter hauling occurs on Road 443, these miles will not be available during activity

The geographic boundary for cumulative effects is the same as for the American/Crooked River Project area.

There are no expected cumulative effects for Alternative 1 or the action alternatives for trail opportunities beyond effects described under direct/indirect effects.

### **3.8.1.3. IRREVERSIBLE, IRRETRIEVABLE EFFECTS**

#### **ROADS**

##### **ALTERNATIVE A (NO ACTION ALTERNATIVE)**

There would be no irretrievable or irreversible loss with respect to the road system in the American River analysis area.

##### **ALTERNATIVES B, C, D, AND E**

There would be an irretrievable loss of access on a portion of the American River road system due to the proposed road decommissioning in Alternatives B, C, D, and E. This loss would be small and would not affect highway vehicles.

### **3.8.2. CROOKED RIVER**

#### **3.8.2.1. INDICATOR 1 – MILES OF ROAD**

##### **EXISTING CONDITION**

To aid in describing the current state of the road system, road management objectives for each road are presented in tabular form in Appendix F. Road management objectives describe the design, maintenance, and operational characteristics of a road. Refer to the American River section for a discussion of access prescription codes and objective maintenance levels.

There are approximately 120 miles of inventoried road in the Crooked River analysis area. The following five tables summarize the current state of the road system within this analysis area in the form of road management objectives. Refer to Appendix F for definitions of these road management objectives.

**Table 3.60: Current Access Prescriptions – Crooked River Roads**

Access Prescription Code	Length of Road (Miles)	Percent of Total Road Miles
Open	38.1	31.6
C2-A	0.6	0.5
Y-2	14.3	11.8
Y-3	64.4	53.4
Y-4	3.3	2.7

**Table 3.61: Objective Maintenance Levels – Crooked River Roads**

Objective Maintenance Level	Length of Road (Miles)	Percent of Total Road Miles
1	78.9	65.3
2	17.3	14.4
3	23.4	19.4
D	1.1	0.9

**Table 3.62: Traffic Service Levels – Crooked River Roads**

Traffic Service Levels	Length of Road (Miles)	Percent of Total Road Miles
C	23.2	19.2
D	96.4	79.9
NA	1.1	0.9

**Table 3.63: Road Jurisdiction – Crooked River Roads**

Jurisdiction	Length of Road (miles)	Percent of Total Road Miles
Forest Service	108.4	89.8
County	12.1	10.0
Private	0.2	0.2

**Table 3.64: Road Surface Type - Crooked River roads:**

Surface type	Length of Road (miles)	Percent of Total Road Miles
Aggregate	68.4	56.7
Native Material	52.3	43.3

Regarding access prescription codes, of particular interest to many is access on roads with highway vehicles. The **Open** and **C2-A** access prescription codes are combined to determine allowable access with highway vehicles for the Crooked River analysis area. Currently, 32.2 percent of the total miles of road are open to highway vehicles. Access on the remaining length of road is restricted year-round for the reasons stated previously in the subsection entitled **Scope of the Analysis**. Refer to map 14b for a display of roads in the Crooked River analysis area that are open, either year-round or seasonally, to highway vehicles.

**ENVIRONMENTAL EFFECTS**

**ALTERNATIVE A – NO ACTION ALTERNATIVE**

With Alternative A, the road system, including the road management objectives, in the Crooked River analysis area would remain much as it currently is.

**ALTERNATIVES B, C, D, and E**

***ROAD DECOMMISSIONING***

All roads proposed for decommissioning under these alternatives were identified in the ***American and Crooked Rivers Roads Analysis*** (USDA Forest Service, 2003) as not required for future management needs. These roads were selected for decommissioning primarily because of the resulting benefit to watershed health by returning the landscape to near natural state. See the American River section for a discussion of decommissioning methods. Refer to Appendix F for a list of the roads proposed for decommissioning by alternative in the Crooked River analysis area, and see Appendix D for the method of decommissioning recommended for each of these roads. See maps 2b, 3b, 4b, 5b, and 6 for graphical displays of the roads proposed for decommissioning. A summary of the costs associated with the proposed road decommissioning is presented in section 3.12 (Socio-Economic).

Road management objectives for the roads proposed for decommissioning in each of these alternatives would change. The road management objective of primary interest to most road users is the access prescription code, which would change to “B,” indicating a year-round restriction to use by all modes of travel, except travel by foot. The only exception is Road 9836. The last 1.4 miles (nearest Crooked River) of this road are proposed for decommissioning in Alternatives B, C, D, and E. This section of road would not be closed completely or removed from the landscape; it would be converted to a trail, allowing access with trail vehicles and snowmobiles. The following table summarizes the length of road proposed for decommissioning for each alternative, as well as the effect of the decommissioning on travel access.

**Table 3.65: Road Decommissioning and Corresponding Access Change  
Crooked River Roads**

Item	Alternative B	Alternative C	Alternative D	Alternative E
Road Length Decommissioned (mi)	9.0	9.8	9.8	17.3
Road Open to Highway Vehicles (mi)	37.3	37.3	37.3	37.3
Decrease in Access with Highway Vehicles (mi)	1.5	1.5	1.5	1.5
% Decrease in Access with Highway Vehicles	3.8	3.8	3.8	3.8

For each alternative, there is little change in travel access with highway vehicles, because most of the road miles proposed for decommissioning are currently closed to access vehicles.

***ROAD RECONDITIONING AND TEMPORARY ROAD CONSTRUCTION***

The roadwork proposed with any of the action alternatives would be done either to prepare a road for timber hauling or to improve the environmental health of the watershed. There is some overlap, however, in that some of the roadwork needed for timber hauling would also benefit watershed

health. The roadwork needed to prepare roads for timber hauling is the primary focus of this section. Refer to the American River section for a description of the roadwork categories. Refer to Section 3.2. (Watershed) for further discussion of the roadwork proposed for the purpose of watershed health improvement and Appendix D for descriptions and locations of the roadwork.

No permanent, new road construction is proposed with any of the action alternatives. Temporary roads would be constructed where needed for access to treatment areas. All temporary roads would be decommissioned no later than three years after initial construction. Refer to Chapter 2 for additional information regarding measures for mitigating the effects of temporary road construction. The following table summarizes, by alternative, the roadwork required for timber hauling and temporary road construction. Refer to Section 3.12 (Socio-Economic), for a summary of the costs associated with the proposed roadwork, including the construction and subsequent decommissioning of temporary roads.

**Table 3.66: Roadwork Activity by Alternative – Crooked River Roads**

Activity	Alternative B	Alternative C	Alternative D	Alternative E
Minor Reconstruction/Maintenance (mi)	41.6	39.9	44.3	40.9
Moderate Reconstruction (mi)	5.1	8.3	8.8	5.1
Major Reconstruction (mi)	2.5	1.3	3.5	2.5
Temporary Road construction (mi)	4.4	6.2	6.2	3.5

### 3.8.2.2. INDICATOR 2 – TRAILS

#### EXISTING CONDITION

##### ***SUMMER TRAIL SYSTEM***

Similar to the American River area, historically trails in the area were primarily developed for access to mining claims, private lands, fire suppression activities, and Forest Service administrative uses. Most trails were built to accommodate pack and saddle stock and were the primary access routes in the Crooked River drainage.

Currently, the majority of the trail system is utilized for recreation purposes. There are approximately 15.1 miles of system trails within the Crooked River project area. The Idaho Centennial Trail utilizes Trails 821, 820, and portions of 508. The Idaho Centennial Trail is a 1,200 mile north/south trail crossing Idaho, designated in 1990 during Idaho’s centennial celebration of statehood.

The following table displays the system trails in the Crooked River project area, their length, current management objective and restrictions:

**Table 3.67 – System Trails – Crooked River**

Trail Number	Trail Name	Trail Length	Current Management Objective/Restriction
207	Moose Butte	10.0 miles (1 miles on project area boundary)	Open to all motorized trail vehicles, closed to highway vehicles. Managed for pack and saddle stock.
508*	Porter's	8.0 miles (4 miles on project area boundary)	Open to motorbikes and snowmobiles over snow. Managed for pack and saddle uses.
805	Miner's Ditch	13 miles (2.5 miles within project area)	Closed to all motorized vehicles. Managed for hiker uses.
817	Center Star Mountain	6.0 miles (1 mile on project area boundary)	Open to motorbikes and snowmobiles over snow. Closed to highway vehicles and ATVs. Managed for pack and saddle stock.
820*	Porter Spur	1.0 mile (all miles in project area)	Open to all trail uses. Managed for pack and saddle uses.
821*	Silver Creek	4.1 miles (all within project area)	Open to all motorized uses. Managed for ATVs and snowmobiles. Part of the groomed snowmobile system. Trail 821 shares the template with Road 9836.
844	Relief Creek	1.5 miles (all miles in project area)	Open to motorbikes and snowmobiles over snow. Closed to highway vehicles and ATVs. Managed for pack and saddle stock and trail bikes.
TOTAL MILES In project area		15.1	

\*Segment of Idaho Centennial Trail

Of the 32.5 miles of trail within the Crooked River project area, the following table displays the number of miles open to different trail users:

**Table 3.68: Miles of Trails Open to Trail Users – Crooked River**

Open to ATV	Open to Motorcycles	Open to Foot and Horse	Open to Snowmobiles
6.1 miles	12.6 miles	15.1 miles	12.6 miles

**WINTER TRAIL SYSTEM**

The winter trail system uses portions of the road system to provide a network of groomed snowmobile trails. This system is groomed annually between December and April under a cooperative agreement between Idaho Department of Parks and Recreation, Idaho County and the Nez Perce Forest. The Crooked River project area portion of this groomed system connects with the Elk City, Clearwater, Kooskia, Red River, and Dixie communities, providing a network of groomed snowmobile trails.

**Table 3.69: Groomed Snowmobile Trail System – Crooked River**

Road Number	Road Name	Length Groomed
233	Crooked River	2 miles in project area
311	Orogrande-Dixie	0.1 mile in project area
1803	Relief Creek	7.7 miles
9836	Sawmill Creek	4.4 miles
<b>Total Miles in project area</b>		<b>14.2 miles</b>

**ENVIRONMENTAL EFFECTS**

**ALTERNATIVE A – NO ACTION ALTERNATIVE**

**DIRECT AND INDIRECT**

The number of miles of trails available to the public would not change under this alternative. However, the ability to use the trail system may be physically restricted without an increase in user maintenance efforts due to limited Agency funding for trail maintenance

Under this alternative, as dead and dying trees fall across the system trails, trail maintenance costs will likely increase due to the increase in the number of trees down per mile. Even with annual maintenance occurring, it will be likely the trail users will need to be prepared to cut trees out in order to utilize the trail system.

The likelihood of increased wildfire occurrence under this alternative, will also increase the cost of trail maintenance. Trail damage from fire normally results in holes in the trail tread due to tree roots burning out; increase erosion due to the lack of vegetation resulting in the need for more erosion control structures; increase in the number of down trees over the trail; signs and erosion control devices will need to be replaced due to fire damage.

The number of miles available to the public would not change under this alternative. However, the ability to use the trail system may be physically restricted without an increase in user maintenance efforts due to limited Agency funding for trail maintenance.

**ALTERNATIVE B**

**DIRECT AND INDIRECT**

***SUMMER TRAIL SYSTEM***

Under this alternative, two harvest units lie across Trails 820 and one unit is adjacent to Trail 844 at the trail junction with Road 1803. There are not any temporary road crossing of trails in the Crooked River Project area. These locations are summarized on the following table.

**Table 3.70 – Alternative B Harvest Units and Trails – Crooked River**

Trail Number	Units Across Trail	Units Adjacent or Close to Trail	Temporary Road Crossing of Trail
820	47 and 48		
844		53	

The harvest activity will change the character of the trail as it goes through the harvest units as the canopy is removed. The harvest activity will open up vistas from Trail 820. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along trail 820, alternative access would be a combination of Trail 844 and Road 1809.

Trails 207, 508, 805, 817, and 821 will not be affected by any harvest activity.

Under the restoration package (Appendix D) for this alternative:

- Approximately 1.5 miles of Road 9836 will be converted from a road to a motorized trail. The project will install erosion control structures to reduce the rutting and erosion occurring on this road. The road/trail prism width will not change as the route is a portion of the groomed snowmobile system and the current road width is needed for the snowmobile grooming equipment. Once converted to a trail, this 1.5 mile section will be closed to highway vehicles.

**SNOWMOBILE TRAIL SYSTEM**

Seven harvest units lie adjacent to the groomed snowmobile route along Road 1803. These units are 47, 48, 50.1, 51, 52, 53, and 58. Some of these units will contribute to future play areas for snowmobile until such time as regeneration is reestablished.

If Road 1803 is used as a haul route in winter, the Crooked River/Orogrande area will be isolated from the Elk City portion of the groomed system. Alternative routes are not available. Recommended mitigation if winter hauling occurs:

- No hauling will occur on weekends between December 1 and March 30 on Roads 1803 and 9836 to allow for snowmobile traffic.

**Table 3.71: Alternative B, Changes in Access Prescription**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	6.1	12.6	15.1	12.6	14.2
Alternative B	6.1	12.6	15.1	12.6	14.2 If winter hauling occurs on Road 1803, these miles may not be available during harvest activity.

**ALTERNATIVE C**

**DIRECT AND INDIRECT**

**SUMMER TRAIL SYSTEM**

Under this alternative, two harvest units lie across Trails 820 and one unit is adjacent to Trail 844 at the trail junction with Road 1803. There are not any temporary road crossing of trails in the Crooked River Project area. These locations are summarized on the following table:

**Table 3.72 – Alternative C Harvest Units and Trails – Crooked River**

Trail Number	Units Across Trail	Units Adjacent or Close to Trail	Temporary Road Crossing of Trail
820	47 and 48		
844		53	

The harvest activity will change the character of the trail as it goes through the harvest units as the canopy is removed. The harvest activity will open up vistas Trail 820. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along Trail 820, alternative access would be a combination of Trail 844 and Road 1803.

Trails 207, 508, 805, 817, and 821 will not be affected by any harvest activity.

Under the Restoration Package (Appendix D) for this alternative

- Approximately 1.5 miles of Road 9836 will be converted from a road to a motorized trail. The project will install erosion control structures to reduce the rutting and erosion occurring on this road. The road/trail prism width will not change as the route is a portion of the groomed snowmobile system and the current road width is needed for the snowmobile grooming equipment. Once converted to a trail, this 1.5 miles will be closed to highway vehicles.

**SNOWMOBILE TRAIL SYSTEM**

Seven harvest units lie adjacent to the groomed snowmobile route along Road 1803. These units are 47, 48, 50.1, 51, 52, 53, and 58. Some of these units will contribute to future play-areas for snowmobiles until such time as regeneration is reestablished.

If Route 1803 is used as a haul route in winter, the Crooked River/Orogrande area will be isolated from the Elk City portion of the groomed system. Alternative routes are not available. Recommended mitigation if winter hauling occurs.

- No hauling will occur on weekends between December 1 and March 30 on Roads 1803 and 9836 to allow for snowmobile traffic.

**Table 3.73 – Alternative C, Changes in Access Prescription**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	6.1	12.6	15.1	12.6	14.2
Alternative B	6.1	12.6	15.1	12.6	14.2 If winter hauling occurs on Road 1803, these miles may not be available during harvest activity.

**ALTERNATIVE D**

**DIRECT AND INDIRECT**

***SUMMER TRAIL SYSTEM***

Under this alternative, three harvest units lie across Trail 820, seven units are adjacent to Trail 821 and one unit is adjacent to Trail 844 at the trail junction with Road 1803. There are no temporary road crossings of trails in the Crooked River Project area. These locations are summarized on the following table:

**Table 3.74 – Alternative D, Harvest Units and Trails – Crooked River**

<b>Trail Number</b>	<b>Units Across Trail</b>	<b>Units Adjacent or Close to Trail</b>	<b>Temporary Road Crossing of Trail</b>
820	47, 48, 49		
821		43, 44, 45, 46, 313, 313.1, and 341	
844		53	

The harvest activity will change the character of the trails as they go through the harvest units as the canopy is removed. The harvest activity will open up vistas from the Trails 820 and 821. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along Trail 820, alternative access would be a combination of Trail 844 and road 1803. Alternative access for Trail 821 would be Relief Creek Road 522 to Road 1803.

Trails 207, 508, 805, and 817 will not be affected by any harvest activity.

Under the restoration package (Appendix D) for this alternative:

- Approximately 1.5 miles of Road 9836 will be converted from a road to a motorized trail. The project will install erosion control structures to reduce the rutting and erosion occurring on this road. The road/trail prism width will not change as the route is a portion of the groomed snowmobile system and the current road width is needed for the snowmobile grooming equipment. Once converted to a trail, this 1.5 miles will be closed to highway vehicles.

***SNOWMOBILE TRAIL SYSTEM***

Sixteen harvest units lie adjacent to the groomed snowmobile route along Roads 9836 and 1803. These units are 43, 44, 45, 46, 47, 48, 49, 50.1, 51, 52, 53, 58, 313, 313.1, 319, and 341. Some of these units will contribute to future play areas for snowmobiles until such time as regeneration is reestablished.

Due to the position of units 43 and 317 on the slope and their relation to the groomed route, there is an increased risk of drifting snow accumulating on the groomed route in these two locations. This could result in the need for the placement or construction of snow drift fences to reduce the accumulation of snow on the trail.

If Road 1803 is used as a haul route in winter, the Crooked River/Orogrande area will be isolated from the Elk City portion of a groomed system. Alternative routes are not available. Recommended mitigation if winter hauling occurs:

- No hauling will occur on weekends between December 1 and March 30 on Roads 1803 and 9836 to allow for snowmobile traffic.

**Table 3.75 – Alternative D, Change in Access Prescription for Trail 887**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	6.1	12.6	15.1	12.6	14.2
Alternative D	6.1	12.6	15.1	12.6	14.2 If winter hauling occurs on Road 1803, these miles may not be available during harvest activity.

**ALTERNATIVE E**

**DIRECT AND INDIRECT**

***SUMMER TRAIL SYSTEM***

Under this alternative, one harvest unit lies across Trail 820 and one unit is adjacent to Trail 844 at the trail junction with Road 1803. There are no temporary road crossings of trails in the Crooked River Project area. These locations are summarized on the following table:

**Table 3.76 – Alternative E, Harvest Units and Trails – Crooked River**

Trail Number	Units Across Trail	Units Adjacent or Close to Trail	Temporary Road Crossing of Trail
820	47		
844		53	

The harvest activity will change the character of the trails as they go through the harvest units as the canopy is removed. The harvest activity will open up a small vista along Trail 820. If the trail mitigation measures are incorporated into project design, impacts to these trails will be minimized.

During harvest activity along Trail 820, alternative access would be a combination of Trail 844 and Road 1803.

Trails 207, 508, 805, 817, and 821 will not be affected by any harvest activity.

This alternative has the least impacts to the trail system of any of the action alternatives.

Under the Restoration Package (Appendix D) for this alternative:

- Approximately 1.5 miles of Road 9836 will be converted from a road to a motorized trail. The project will install erosion control structures to reduce the rutting and erosion occurring on this road. The road/trail prism width will not change as the route is a portion of the groomed snowmobile system and the current road width is needed for the snowmobile

grooming equipment. Once converted to a trail, this 1.5 miles will be closed to highway vehicles.

- Trail 807 is adjacent to the project area. Under the restoration package, additional erosion control structures and measures would be undertaken to reduce the sedimentation produced by the steep 1.1 mile section of this trail. There is a need to survey for opportunities to relocate this section of the trail to reduce grades for both resource concerns and user safety.

**SNOWMOBILE TRAIL SYSTEM**

Five harvest units lie adjacent to the groomed snowmobile route along Roads 9836 and 1803. These units are 47, 51, 52, 53, and 58. Some of these units will contribute to future play areas for snowmobiles until such time as regeneration is reestablished.

If Road 1803 is used as a haul route in winter, the Crooked River/Orogrande area will be isolated from the Elk City portion of the groomed system. Alternative routes are not available. Recommended mitigation if winter hauling occurs:

- No hauling will occur on weekends between December 1 and March 30 on Roads 1803 and 9836 to allow for snowmobile traffic.

This alternative has the least impact to the groomed snowmobile system of any of the action alternatives.

**Table 3.77 – Alternative E, Change in Access Prescription**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
Existing Condition – Alternative A	6.1	12.6	15.1	12.6	14.2
Alternative E	6.1	12.6	15.1	12.6	14.2 If winter hauling occurs on Road 1803, these miles may not be available during harvest activity

**3.8.3. CUMULATIVE EFFECTS – ALL ALTERNATIVES - TRAILS**

The geographic boundary for cumulative effects is the same as for the American/Crooked River Project area.

There are no expected cumulative effects for Alternative 1 or the action alternatives for trail opportunities.

### 3.8.4. IRREVERSIBLE, IRRETRIEVABLE EFFECTS

#### ROADS

##### **ALTERNATIVE A (NO ACTION ALTERNATIVE)**

There would be no irretrievable or irreversible loss with respect to the road system in the Crooked River analysis area.

##### **ALTERNATIVES B, C, D, AND E**

There would be an irretrievable loss of access on a portion of the Crooked River road system due to the proposed road decommissioning in Alternatives B, C, D, and E. There would be a 3.8 percent loss in access with highway vehicles.

#### TRAILS

##### **ALTERNATIVE A**

No Irreversible or irretrievable effects to the trail system.

##### **ALTERNATIVE B, C, D, E**

No Irreversible or irretrievable effects to the trail system.

Trail 820 connects with Trail 508. Trail 508 is open to motorcycles and snowmobiles over snow, closed to ATVs. Currently, Trail 820 is open to all motorized trail vehicles. It is recommended that a restriction be implemented on Trail 820 that is consistent with the restrictions on Trail 508, i.e. close Trail 820 to ATVs and allow motorcycles and snowmobiles over snow. In the restoration package, recommend similar restriction on ATVs on Trail 887.

If these actions are implemented, the action alternatives would show a reduction of 1 mile of trail open to ATV's in Crooked Creek from 6.1 to 5.1 miles and a 1.6 reduction of miles of trail open to ATV's in American River.

**Table 3.78 – Miles of Trails**

Alternative	Open to ATV (mi)	Open to Motorcycles (mi)	Open to Foot and Horse (mi)	Open to Snowmobiles (mi)	Groomed Snowmobile System (mi)
<b>American River: Total Miles – Summer (32.5), Total Miles – Winter (7.2)</b>					
Existing Condition	19.55	21.05	32.5	26.55	7.2
Action Alternatives	17.95	21.05	32.5	26.55	7.2 If winter hauling occurs on Road 443, these miles will not be available during activity.
<b>Crooked River: Total Miles – Summer (15.1), Total Miles – Winter (14.2)</b>					
Existing Condition	6.1	12.6	15.1	12.6	14.2
All Action Alternatives	5.1	12.6	15.1	12.6	14.2 If winter hauling occurs on Road 1803, these miles may not be available
Change from Existing	-2.6	0	0	0	0 Long Term

### **3.8.5. FULL SUMMARY OF CUMULATIVE EFFECTS FOR TRANSPORTATION**

#### **ROAD SYSTEM**

The following is a summary of the effects on the road system in the American River and Crooked River analysis areas resulting from the proposed action alternatives.

#### **ALTERNATIVE A – NO ACTION ALTERNATIVE**

There are no effects on the road system in either analysis area with Alternative A.

#### **ALTERNATIVES B, C, D, and E**

- No permanent new road construction would occur in the American River and Crooked River analysis areas with any of these action alternatives.
- Temporary roads would be constructed where required to access treatment areas.
- Temporary roads would be decommissioned no later than three years after construction.
- The road management objectives for roads in the American River and Crooked River analysis areas would not change, except for the roads proposed for decommissioning.
- Public access on roads in the American River and Crooked River analysis areas would decrease slightly with each of these alternatives. Access with highway vehicles would not change on roads in the American River analysis area and would decrease on roads in the Crooked River analysis area by 3.8 percent with each of these alternatives.

#### **TRAIL SYSTEM**

There is very little change to miles of trail open to different trail users between all the action alternatives. The action alternatives display a 1.6 miles reduction in the number of miles open to ATV users in American River due to closing Trail 887 to ATVs. Trail 887 is currently open to ATV uses, but this use has not been established because the tread width is 18 inches and not suitable for ATVs.

Under the no action alternative, miles of trail actually open for trail user's can diminish due to the number of trees falling across trails as the trees stands fall apart or wildfire occurs. The current and expected trail maintenance budget would not provide the maintenance frequency needed to keep the trail open for the users. Users (both summer and winter) would need to be prepared to open trails for their own use. Under the action alternatives, due to the small percentage of the area treated, there will be little change in the potential impacts to the trail system over the No Action Alternative.

The snowmobile trail system would see some short-term reductions in miles available for use if winter harvest activity were to occur on Roads 443 and 1803. In American River, limitations on snowmobile use on Road 443 would not be overly impactful due to an alternate route to the Selway/American River divide by the use of Road 243. In the Crooked River project area, winter hauling off Road 1803 will greatly impact the groomed system by isolating the Orogrande area from the Elk City area. Alternative routes are not available for snowmobile traffic. Recommended mitigation if winter hauling is to occur, is to allow for snowmobile use during the weekends from December 1 through March 30 by restricting log truck and highway vehicle use on Road 1803 from midnight on Friday nights through midnight on Sunday nights.

The following tables display the changes in the access prescriptions for trails under the action alternatives:

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**Table 3.79: American River Area – Changes in Trail Access Prescriptions**

<b>Trail Number</b>	<b>Trail Name</b>	<b>Current Management Objective/Restriction</b>	<b>Proposed Access Management Restriction</b>
509	Otto	Open to all motorized trail vehicles, closed to highway vehicles. Managed for snowmobile uses.	No change
510	Flint Creek	Closed to all motorized vehicles, except snowmobiles over snow. Managed for pack and saddle use	No change
830	Kirk's Fork	Closed to highway vehicles and ATVs. Open to trail bikes and snowmobiles. Managed for pack/saddle and motorbike use.	No change
831	Flatiron Ridge	Open to all motorized trail vehicles, closed to highway vehicles. Managed for pack /saddle and motorbike use.	No change
832	East Fork American River	From junction with Trail 835 to junction with Trail 831, open to all motorized trail vehicles, closed to highway vehicles. Managed for ATV use.	No change
		From Trail 831 junction to Trail 510 junction, closed to all motorized uses. Managed for pack and saddle stock.	No change
835	Boundary Trail NRT	Open to all motorized trail vehicles, closed to highway vehicles. Managed for ATV use.	No change
836	American River	Open to all motorized trail vehicles. Managed for pack and saddle use.	No change
846	Lower Kirk's Fork	Open to all motorized trail vehicles. Managed for ATV use.	No change
848	Red Horse Ridge	Open to all motorized trail vehicles. Managed for pack and saddle use.	No change
852	Lower East fork American River	No restrictions. Managed for hiker use.	No change
887	Box Sing	Open to all motorized trail vehicles. Managed for pack/saddle and motorbike use.	Open to 2-wheeled trail vehicles and snowmobiles over snow. Closed to ATVs
<b>Total miles in project area: 32.5</b>			

**Table 3.80: Crooked River Area – Changes in Trail Access Prescriptions**

Trail Number	Trail Name	Current Management Objective/Restriction	Proposed Access Management Restriction
207	Moose Butte	Open to all motorized trail vehicles, closed to highway vehicles. Managed for pack and saddle stock	No change
508 (Segment of Idaho Centennial Trail)	Porter's	Open to motorbikes and except snowmobiles over snow. Managed for pack and saddle uses.	No change
805	Miner's Ditch	Closed to all motorized vehicles. Managed for hiker uses.	No change
817	Center Star Mountain	Open to motorbikes and snowmobiles over snow. Closed to highway vehicles and ATVs. Managed for pack and saddle stock	No change
820 (Segment of Idaho Centennial Trail)	Porter Spur	Open to all trail uses. Managed for pack and saddle uses.	Open to 2-wheeled motorbikes and snowmobiles over snow. Closed to ATVs.
821 (Segment of Idaho Centennial Trail)	Silver Creek	Open to all motorized uses. Managed for ATVs and snowmobiles. Part of the groomed snowmobile system. Trail 821 shares the template with Road 9836.	Open to all motorized trail uses. Closed to highway vehicles.
844	Relief Creek	Open to motorbikes and snowmobiles over snow. Closed to highway vehicles and ATVs. Managed for pack and saddle stock and trail bikes.	No change
<b>Total miles in project area: 15.1</b>			

If these actions are implemented, the action alternatives would show a reduction of 1 mile of trail open to ATVs in Crooked Creek from 6.1 to 5.1 miles and a 1.6 reduction of miles of trail open to ATVs in American River. These changes are summarized below:

Under the action alternatives, the harvest activity will change the character of trails as it goes through harvest units and the tree canopy is removed. The harvest activity will also open vistas from the trails where units are across or adjacent to the trails. By adhering to the mitigation measures for trails, the impacts to the trail character will be minimized.

The following table displays the number of units and their location in relation to the existing trails system:

**Table 3.81 – Units and Trails**

<b>Area/Item</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>
<b>AMERICAN RIVER AREA</b>					
<b>Summer Trails</b>					
Units Across Trails	0	7	12	15	2
Units Adjacent to Trails	0	7	9	10	5
Temporary Road Crossings	0	3	4	4	1
<b>Snowmobile Trails</b>					
Units Across Trails	0	0	0	0	0
Units Adjacent to Trails	0	9	5	10	8
Drift Areas	0	1	0	1	1
<b>CROOKED RIVER AREA</b>					
<b>Summer Trails</b>					
Units Across Trails	0	2	3	3	1
Units Adjacent to Trails	0	1	5	8	1
Temporary Road Crossings	0	0	0	0	0
<b>Snowmobile Trails</b>					
Units Across Trails	0	0	0	0	0
Units Adjacent to Trails	0	7	12	16	5
Drift Areas	0	0	1	2	0