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# INTRODUCTION

## Background

Over the past several decades, the public has increasingly relied on public lands for motorized recreational opportunities. Advances in vehicle technology and rapid population growth in the West have increased the public use of remote public lands. New forms of transportation and their increasing use have out-paced agency transportation planning and the ability to effectively manage this use. Balancing public use and enjoyment of public lands along with protection of important resources requires more active and effective travel management. As a result, comprehensive travel management planning is currently one of the top priorities for federal land management agencies.

The Bureau of Land Management (BLM) Salmon Field Office (SFO) first addressed the need for more active transportation management with the completion of the 2001 Lemhi Resource Management Plan Amendment (RMPA). Prior to 2001, public lands throughout the SFO were, for the most part, open to cross-country motorized travel. Decisions made within the RMPA resulted in limiting motorized travel within most of the Field Office to “existing vehicle roads, ways and trails [2001 RMPA, pg 11]”; with subsets of the Field Office “limited to designated roads and trails.”

Since the 2001 RMPA, the SFO has completed a comprehensive inventory of existing roads, primitive roads, and trails through the use of aerial photo analysis and ground verification. In 2004, the SFO published the “Salmon Area BLM Travel Guide”. This map is free to the public, showing current travel designations and restrictions.

The RMPA guidance also recognized that the existing network of inherited roads and trails might not necessarily be the most appropriate or desirable transportation system for the long term, and directed the SFO to: “Reassess OHV [Off-Highway Vehicle] management throughout the Field Office area no later than 2007 to determine if changes in management would be appropriate to achieve the broadest range of use opportunities.”

With necessary route inventories completed in 2007, the SFO began a travel planning public outreach effort in the winter of 2008. Two “open house” meetings were held in Salmon and Tendoy, Idaho. Approximately 145 invitations to the open house meetings were mailed to a variety of individuals, user and interest groups, public officials, BLM permittees, and other government agencies. The meetings were also announced in regional newspapers, on the local radio station in Salmon, and with flyers posted throughout the community. During these meetings, the public was invited to review maps of the existing network of roads and trails; identify any mistakes in the inventory; describe the kind of travel system which would best suit their needs; and provide written comments and concerns. A total of approximately 30 people attended these two meetings. During 2007, the SFO staff responded to invitations to attend public meetings and provide a travel planning overview to the Salmon City Council, Backcountry Horsemen, and the Rotary Club. The SFO staff also attended a number of informal meetings with private individuals, stakeholders and local government officials.

In order for the public to track the progress of the planning effort, the SFO established a Travel Plan webpage in November 2008:

[http://www.blm.gov/id/st/en/fo/salmon/travel\\_management.html](http://www.blm.gov/id/st/en/fo/salmon/travel_management.html).

The webpage was populated with maps of the planning area, maps of the existing route network, schedules for public meetings, an email address for comments, and other related planning documents and information.

In January of 2009, the Salmon Valley Stewardship (SVS), a local non-profit organization, recruited and organized a travel planning work group made up of a diverse cross-section of local citizens, resource and user advocate groups, and local government officials and commercial interests. The work group held a series of six meetings that continued through the spring 2009. The BLM was invited to attend the afternoon work group sessions and provided an opportunity to hear, in detail, the diverse issues and concerns surrounding public access.

The SFO and Lemhi County also entered into a Memorandum of Understanding (MOU), establishing Lemhi County as a “Cooperating Agency” in the travel planning effort. The Cooperating Agency role derives from the *National Environmental Policy Act of 1969* (NEPA) which calls on federal, state, and local governments to cooperate in planning efforts to identify common goals and improve communication, understanding, and the overall quality of management of public lands.

In early summer of 2009, BLM staff and resource specialists began working through a route-by-route review process resulting in four travel management alternatives. The SFO hosted two public meetings in September of 2009 for the public to review and comment on the alternatives and changes to the existing Resource Management Plan. A total of about 20 people attended these meetings.

## Key Issues and Concerns

The SFO identified numerous travel planning issues as a result of comments and concerns received through the public involvement process and internal scoping. The following key issues were identified and are summarized below:

1. *Maintaining motorized recreation opportunities and administrative access:* Comments received at the public open house meetings focused on the need to maintain existing motorized access to public lands. These comments reflect a tradition and emphasis on motorized recreational use in Lemhi County. Many non-motorized users also recognized the need to continue this use within the constraints of a designated route system. Several comments came from public land grazing permittees stating their need to maintain access for administrative purposes, such as maintaining fences and livestock watering facilities.
2. *Protecting the planning area’s natural and cultural resources:* Public and internal comments emphasized the need to limit access and reduce route density where

appropriate to protect a variety of resource values. Comments noted the planning area serves as important winter range for a variety of wildlife species, and accelerated erosion can occur due to the steep roads located on erosive soil types within the planning area. Recommendations to achieve these goals included eliminating: 1) steep routes wherever possible; 2) duplicate or redundant routes; 3) routes no longer demonstrating use; and 4) short, abbreviated segments of road pioneered from regularly traveled routes with no apparent recreation or administrative value.

3. *Providing for a designated route system which is implementable, maintainable and manageable:* Throughout the public outreach and planning process, comments included public concern regarding the BLM's lack of ability to effectively sign, maintain, and enforce travel regulations and restrictions within the SFO.
4. *Providing for a designated route system which is adaptable to meet the area's current and future recreation and non-recreation motorized and non-motorized demands:* Interdisciplinary Team and public comments emphasized the need to provide for a travel route system which can adapt to new information and future recreation and non-recreation needs.
5. *Providing public access to public lands where restricted or blocked by private land:* Throughout the public scoping process, local residents expressed concern about the increasing number of BLM roads and large blocks of public lands no longer accessible to motorized use due to gated or posted closures on private lands.
6. *Providing non-motorized trails and opportunities for mountain bike riding:* For several years now, a number of residents from the city of Salmon have expressed interest in having some of the more popular, existing single track bike trails designated as limited to non-motorized use.

## **Purpose and Need**

The purpose of this planning effort is to implement the 2001 Lemhi Resource Management Plan Amendment decision to reassess current travel management plan route designations. The objectives are to determine if changes in management are needed and to apply current national management strategies, guidance and policy for off-highway vehicle use on public lands.

This planning effort is based upon the need to: 1) change from "limited to existing routes" category and formally designate specific roads and trails on which vehicle use is allowed, thereby improving BLM's ability to provide the public with a clear delineation of available routes through the publication of maps and installation of designated route markers and portal signs; 2) reduce the potential for impacts from increasing recreational use on cultural and natural resource values; 3) provide a transportation system that meets the needs of the public land users; and 4) reduce use conflicts associated with private and public lands interface.

## **Location**

The planning area is located in the northern half of the SFO area and includes approximately 170,000 acres of public lands located in Lemhi County, Idaho (Map #1, North Travel Planning Area).

## **Conformance With Applicable Land Use Plan**

The four alternatives are subject to and in conformance with the Lemhi Resource Management Plan dated April 1987, as amended. The amendment directs the SFO to “Reassess OHV management throughout the Field Office area no later than 2007 to determine if changes in management would be appropriate to achieve the broadest range of use opportunities. During the assessment, consider the following: Need for access; recreation opportunities; public safety; use conflicts; ability to properly maintain roads; and resource concerns such as highly erodible or fragile soils, protection of cultural resources, historic viewsheds, sacred and traditional values, visual resources, special status species habitat, water quality, wildlife habitat, threat of weed invasion, retention of wilderness characteristics, and wetland and riparian habitat [2001 RMPA Decision Record, page 4].” The process of accessing OHV management in the field office began in 2007.

## **Relationship to Statutes, Regulations or Other Plans**

*43 CFR 8342 Designation of Areas and Trails:* The authority for Travel Management Plan designations is located in the Code of Federal Regulations (CFR). Designations of areas and trails open, closed or limited to motorized use is required and authorized under 43 CFR 8342, *Designation of Areas and Trails*. Future route-specific changes in designation would require compliance with the rules, regulations and policy set forth in the National Environmental Policy Act (NEPA).

*Appendix C of BLM’s H-1601-1, Land Use Planning Handbook (3/31/2005):* The BLM land use planning handbook advises that, “Comprehensive travel management planning should address all resource use aspects (such as recreational, traditional, casual, agricultural, commercial, and educational) and accompanying modes and conditions of travel on public lands, not just motorized or off-highway vehicle activities.” The handbook further advises, “...for areas classified as limited consider a full range of possibilities, including travel that will be limited to types of modes of travel, such as foot, equestrian, bicycle, and motorized; limited to time or season of use; limited to certain types of vehicles such as OHVs, motorcycles, all-terrain vehicles, and high clearance.” The handbook also instructs BLM to, “...establish a process to identify specific areas, roads and/or trails that will be available for public use, and specify limitations placed on use.”

*Clean Air Act:* The Clean Air Act of 1970 (amended 1990) is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. Through this law, the U.S. Environmental Protection Agency is authorized to establish National Ambient Air Quality Standards to protect public health and the environment. Air-sheds throughout the United States have been classified as Class I (most restrictive, generally reserved for national parks and designated wilderness areas), Class II (for areas where the deterioration normally accompanying

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moderate, well-controlled growth would be permitted). The Lemhi RMP classifies the entire field office under Class II and Class III (areas where industrial deterioration would generally be allowed). None of the alternatives proposed in this plan would result in the deterioration of the airshed from Class II to Class III.

*Clean Water Act:* Section 303(d) requires states to identify stream reaches that exhibit impaired water quality. The Idaho Department of Environmental Quality (IDEQ) identifies streams with impaired water through its Integrated 303(d)/305(b) Report. Subsequent to 303(d) listing of a stream reach, IDEQ reviews stream conditions and determines whether a Total Maximum Daily Load (TMDL) pollutant allocation is appropriate for each stream reach listed. Subbasin reviews and TMDL load allocations have been completed by IDEQ for the sub-basins of the Salmon Field Office.

*Endangered Species Act (ESA) of 1973, Section 7, as amended:* The Act outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitat. Section 7(a)(2) states that each federal agency shall, in consultation with the Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of their habitats. Possible impacts to species listed under the ESA are described in the impacts section of this document.

*Interim Strategy for Managing Anadromous Fish-Producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California:* Commonly referred to as PACFISH (USFS/BLM 1995a) it was adopted by the BLM in 1995. PACFISH provides Riparian Management Objectives and Standards and Guidelines for managing riparian resources.

*Bull Trout Habitat Conservation Strategy:* Known as INFISH (USFS/BLM 1995b) and implemented by BLM in 1995. INFISH is virtually identical to PACFISH except that it applies to land management activities in the Columbia River Basin outside the scope of PACFISH that contain bull trout.

*Idaho Sage Grouse Conservation Strategy:* In December 2007, the Challis Sage-grouse Local Working Group (CSGLWG) completed a conservation plan specific to Custer and Lemhi Counties. This document presents conservation measures to address risks associated with habitat fragmentation attributed to OHV activities (CSGLWG 2007). The CSGLWG plan will work in concert with the 2006 statewide comprehensive strategy issued by the Idaho Department of Fish and Game (ISAC 2006).

*The Migratory Bird Treaty Act of 1918 (MBTA):* The MBTA was passed to put an end to the commercial trade in birds and their feathers that, by the early years of the 20th century, had severely impacted the populations of many native birds. The MBTA protects all migratory birds and their parts (including eggs, nests, and feathers). The MBTA is a domestic law that enforces treaties between the United States, Mexico, and Canada for the protection of a shared migratory bird resource. Executive Order 13186 enacted in 2001 requires federal agencies to consider the effect of projects on migratory birds with emphasis on species of concern. Species of concern

are described by the USFWS in Birds of Conservation Concern (2008). Land administered by the BLM Salmon Field Office occurs within either the Great Basin or Northern Rockies Bird Conservation Regions (BCR). Impacts to migratory birds are described under the Impacts Section of this document.

*The General Mining Laws* of the United States provide for the disposal of locatable minerals such as gold and silver from public land (30 USC 21-54). *The General Leasing Laws* provide for the disposal of leasable minerals such as oil, coal and phosphate (30 USC 71 *et seq.*). *The Materials Act of 1947* provides for disposal of salable minerals (43 USC 601 *et seq.*). None of the alternatives would prohibit travel as authorized by these laws. As a result of this planning effort, some routes could be physically closed (e.g., blocked, obliterated, rehabilitated, etc.). Future mineral actions may cause the need for these routes to be physically re-opened with minimal effort or impacts. Consequently, mineral resources are not discussed further in this Environmental Assessment.

*BLM Land Use Planning Handbook (H-1601-1)*, Appendix C: This planning handbook provides general guidance for RMP planning and processes.

*Programmatic Agreement (PA)*: Executed by the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers on March 26, 1997, legally replaces 36 CFR Part 800, the Council's government-wide regulations, as the procedural basis for BLM managers to meet their responsibilities under Sections 106, 110(f) and 111(a) of the National Historic Preservation Act (NHPA). An implementing Protocol Agreement between Idaho BLM and the Idaho State Historic Preservation Office signed in June of 1997 further stipulates how cultural resources under Idaho BLM's jurisdiction will be identified, evaluated and managed.

The *Fort Bridger Treaty of 1868* (15 Stat. 673) between the United States and the Shoshone and Bannock Tribes, reserves the Tribes' right to hunt, fish, gather, and exercise other traditional uses and practices on "unoccupied" federal lands.

The federal government has a unique trust relationship with federally-recognized American Indian Tribes, including the Shoshone-Bannock Tribes. The BLM has a responsibility and obligation to consider and consult on potential effects to natural resources related to the Tribes' treaty rights or cultural uses. Resources or issues of interest to the Tribes that could have a bearing on their traditional use and/or Treaty Rights include: tribal historic and archaeological sites, sacred sites and traditional cultural properties, traditional use sites, fisheries, traditional use plant and animal species, vegetation (including noxious and invasive, non-native species), air and water quality, wildlife, access to lands and continued availability of traditional resources, land status, and the visual quality of the environment.

*Executive Order 11593* requires federal agencies to treat all properties determined eligible for listing on the National Register of Historic Places as if they are already included on the National Register.

*Executive Order 13175* mandates federal agencies to consult and coordinate with Indian Tribal Governments.

*Executive Order 13007* requires federal agencies to accommodate access to and ceremonial use of Indian sacred sites and avoid adverse effects to the physical integrity of sacred sites.

*Antiquities Act* prohibits the unauthorized excavation, removal or defacement of objects of antiquity on public lands.

*Archaeological Resource Protection Act* prohibits the unauthorized excavation, removal, or damage of archaeological resources on federal and Indian lands.

*American Indian Religious Freedom Act* protects the rights of Indian people to practice traditional religions on federal lands.

*Native American Graves Protection and Repatriation Act* requires federal agencies to repatriate back to American Indian tribes sacred objects, funerary items, and items of cultural patrimony. NAGPR also regulates excavation of human remain and associated items and provides for a minimum 30-day stop work order on ground disturbing activities that cause inadvertent discovery.

*The National Trails Act* provides for designation of national historic trails that will follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment.

## **PROPOSED ACTION AND ALTERNATIVES**

The development of planning alternatives began in 2007 with the completion of a comprehensive inventory and geographic information system (GIS) database of all routes within the northern half of the Field Office. The BLM staff met with equestrians, mountain bikers, motorized users, range permittees, state and local government officials, and a number of local residents to gather input regarding recreation uses, administrative access needs, and travel opportunities. The BLM also met regularly, by request, with the Salmon Valley Stewardship travel plan work-group to discuss recreation management goals, review the route inventories, and discuss important cultural and natural resource values pertinent to the planning area. With initial public scoping complete, the BLM interdisciplinary staff began a route-by-route review process of the existing network of roads and trails resulting in the development of four management alternatives. As alternatives were developed, discussions took into consideration routes being proposed as “designated” on adjacent USFS managed lands (USDA FS 2009) and applying consistent designations where possible.

To comply with the BLM Road and Trails Terminology Report (Salt, et al., 2006) the following will be used in this document: route nomenclature will be consistent with current BLM guidance, utilizing the terms “road,” formerly called a two-wheel drive road; “primitive road,” formerly called four-wheel drive road and four-wheel drive technical road; and “trail,” formerly called all-terrain vehicle (ATV) route.

### **Description of Alternative 1 - Existing Management**

Alternative 1 is a continuation of current travel management for the SFO as identified in the 2001 RMPA (Attachment 1) and on the 2004 Salmon Area BLM Travel Guide. The 2001 RMPA authorized motorized travel on existing roads, vehicle ways, and trails visible on the 1993-1994 aerial photos and/or 1992 digital orthophotos. The only routes that could be physically rehabilitated, under this alternative, would be routes currently in Designated Route Areas that were not individually designated in the 2001 RMPA or routes that do not appear on the photos.

Alternative 1 would designate all existing roads, primitive roads, and trails visible on the 1993-1994 aerial photos and/or 1992 digital orthophotos (Map #2). Route designations in areas currently limited to designated routes would remain unchanged (Map #2, Alternative 1 and Table 1). Seasonal Closures and vehicle size restrictions would also remain in effect. Eight miles of route would be designated as limited to motorized use of ATV's and two wheeled vehicles only. In addition, the actions common to all Alternatives would apply, these are listed after the description of Alternative 4.

### **Description of Alternative 2**

Alternative 2 strives to achieve the broadest range of recreation opportunity while balancing the need for access with the need to protect public lands resources, reduce user conflicts, and provide for public safety. The designations proposed in this alternative were developed through the consideration of comments gathered throughout the public scoping process, BLM's interdisciplinary staff deliberation, and collaboration with Lemhi County as a “Cooperating Agency”, Idaho Department of Fish and Game, and the Salmon/Challis National Forest.

Alternative 2 would provide motorized travel over approximately 366 miles of existing roads, primitive roads, and trails. Most of the routes that would not be designated are due to lack of legal public access to the routes (75 miles), routes duplicating an adjacent route (47 miles), or short user created routes which do not provide public access to additional areas (48 miles) (Map #3, Alternative 2 and Table 1). Approximately 43 miles of route would be designated as limited to motorized use of ATV's and two wheeled vehicles only. Under Alternative 2, motorized vehicle access within the Lewis and Clark National Historic Trail Special Recreation Management Area (LCNHT/SRMA) would increase about 1.5 miles as a result of designating 1.5 miles of existing road to provide a motorized loop that circles the perimeter of the SRMA.

Under this alternative routes located on public land authorized by the BLM under a Right-of-Way Grant would be designated as open. If a person needs to cross private land to get to a BLM

authorized route and there is legal public access across the private land, the route would be designated. If there is no legal public access across the private land, the route would not be designated.

### **Description of Alternative 3**

Alternative 3 is the same as Alternative 2 with one exception: This alternative designates approximately 28 miles of additional motorized use along several BLM routes where legal public access across private lands does not currently exist. This alternative attempts to maximize the opportunity for motorized public access to public lands while recognizing the inherent conflicts arising out of private landowners exercising discretion over who can have access to routes leading to certain public roads or trails (Map #4, Alternative 3 and Table 1). Authorized rights-of-way across public lands to access private land would be designated under this Alternative.

Alternative 3 includes routes identified during the scoping process which should be designated as open, however no legal public access exists across private land to reach the route. Some routes are currently available to the public; the landowner allows access across the private land even though there is not a legal requirement to do so. Other routes are currently unavailable to the public; the land owner either does not allow public access or allows only a small portion of the public access.

### **Description of Alternative 4 - Minimum Access**

Alternative 4 would designate a minimal network of vehicle access along the most commonly used roads, primitive roads and trails within the planning area. This alternative includes: 1) maximizing protection and enhancement of natural and cultural resource values, 2) focusing on loop riding for motorized use, and 3) encouraging non-motorized forms of recreation activity. Motorized travel would be allowed on approximately 197 miles of designated routes (Map #5, Alternative 4 and Table 1). Approximately 8 miles of route would be designated as limited to motorized use of ATV's and two wheeled vehicles only. Under this Alternative all of the "Actions Common to All Alternatives" would apply.

### **Actions Common to All Alternatives**

1. Existing travel limitations and exceptions: Unless explicitly stated in the alternative description, all travel limitations, restrictions and/or exceptions identified under the 2001 amendment to the Lemhi RMP would remain in effect (Attachment 1).
2. Methods of route closure: A variety of closure methods would be available depending on site specific circumstances. In general, minimum closure techniques supporting resource needs would be used. Methods of closure may include one or more of the following activities: signing, natural rehabilitation, obscuring the road entrance, blocking the road entrance, and/or scarifying, seeding and/or planting the road surface. Physical route rehabilitation would not occur in the following areas without further analysis under the NEPA:

- a. Within 0.6 miles of an active greater sage-grouse lek, between 3/1 and 6/30.
  - b. Between 11/15 and 3/15 on WS-1 (big game and sage-grouse winter range) lands as described in the Lemhi RMP (1987).
3. Route obliteration techniques including scarifying the soil in the road bed, seeding, and vertical mulching would mimic the existing texture, form, line, color, and scale of the existing landscape. Any barrier construction would consist of natural materials incorporated into the existing landscape where feasible.
4. Appropriate and applicable project-related clearances and consultation processes (such as NHPA Section 106 cultural resources survey, mitigation and consultation with Idaho State Historic Preservation Office and the Shoshone-Bannock Tribes) would be completed prior to any undertaking, including any ground-disturbing activities, re-routes, new routes and physical route closures.
5. Provide for the continued exercise of tribal treaty rights and ceremonial activities, including access. Identify and consider Native American issues and concerns in order to accommodate treaty and other legal rights of appropriate Native American groups in the multiple-use management of public lands. Consult with the Shoshone-Bannock Tribes on a case-by-case basis prior to project implementation in order to assess the potential effects to reserved treaty rights and cultural resources of concern to the Tribes.
6. Route Maintenance: Both motorized and non-motorized road and/or trail segments could receive periodic maintenance including smoothing of tread, removal of rocks or other obstacles, installation of rolling dips or water bars, cleanout of water bars, and repair of gullies and rills on the route surfaces. Maintenance of full-sized motorized routes may require mechanized equipment, whereas maintenance of single track trails would be carried out with the use of hand tools. These activities would not occur during the time-frames and in the areas described above under Action 2.
7. Despite the efforts of personnel to “ground truth” existing routes within the planning area, some errors may still be identified on the maps and they would be corrected as they are found. Correction of mapping errors would not change the affects of any of the alternatives and routes would not be added to the alternatives. Maps would be corrected as necessary to accurately reflect the route on the landscape.
8. Within the planning area, all motorized travel would be limited to designated roads, primitive roads and trails, thereby eliminating the current category of “limited to existing” routes.
9. Unless a route is signed or mapped as open, it would not be designated for motorized use.
10. In accordance with 43 CFR §8341.2 with regard to off-highway-vehicle (OHV) use:

“Where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.”

11. Non-reflective materials would be utilized for route signage.

#### **Actions Common to Alternatives 2, 3, and 4**

1. New route or re-route construction of roads designated open to full-size vehicles would be implemented using standard engineering and construction techniques as appropriate. For maintenance of segments designated as restricted to ATVs, a small trail dozer, mini-excavator or equivalent would be used as the primary piece of mechanized equipment to undertake corrective action. The footprint made by a mini-excavator is less than 5 feet wide and new variable width track trail dozers are even less (designed for single-track trail building). Over time, the initial footprint diminishes as cuts slough off and vegetation re-establishes itself. Proposed construction and maintenance efforts for all routes would likely result in disturbance footprints beyond the existing tread width, but would be limited to the minimum disturbance necessary. Construction and maintenance of single-track trail segments would be accomplished using hand tools. Construction would not take place during the timeframes described under Action 2 in “Actions common to All Alternatives”.
2. New routes and re-routes built on upland slopes would be designed to reduce the potential for increased soil movement by using specifications that address slope stability, grade, and gradient with installation of water bars, leaving and /or re-establishing vegetation, and/or following and fitting route locations to the natural terrain as closely as possible. New surface disturbance would take into account the character of the landform, natural contours, cut material, depth of cut, where the fill material would be deposited, resource concerns, and visual contrast.
3. Re-routes #1 and #2: Two existing roads (Maps #6 and #7) would be re-routed and the new routes would be designated as “open”. Each existing road is approximately 0.1 miles and would be closed, re-contoured and rehabilitated (seeding, planting and installation of water control structures) to reduce accelerated erosion.
4. Re-routes #3 and #4: Construct and designate as “open” two segments of new vehicle road. Re-route #3 would be approximately 0.2 miles to go around private land where there is currently no legal access. Re-route # 4 would be approximately 0.3 mile to go around USFS land where there is currently no legal access. (Maps #8 and #9).
5. A BLM approved seed mix would be used when disturbances from route closures or rehabilitation are planted and seeded.

**Table 1: Miles of Route by Alternative**

LIMITED DESIGNATION STATUS	MILES OF DESIGNATIONS BY ALTERNATIVE			
	ALTERNATIVE 1 (Existing Management)	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4 (Minimum Access)
Total Miles Designated to Travel	533	366	394	197
Open to motorized use with no limitations on vehicle type or season of use	479	293	318	178
Limited motorized use seasonally for resource protection (soils, wildlife, etc.)	46	41	41	17
Limited motorized use to ATVs and 2 wheeled vehicles	8	43	47	8
Miles of Reroutes/New Routes	0	.7	.7	.7

## **AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

This section provides a description of the general environmental setting and resources within that setting that could be affected by the four management alternatives. In addition, the section presents an analysis of the direct, indirect, and cumulative environmental impacts likely to result from the implementation of the various alternatives.

### **General Setting**

The planning area is located in east central Idaho and encompasses approximately 170,000 acres of public land. Lands managed by the SFO and neighboring BLM Field Offices typically adjoin National Forest system lands at the upper elevation boundary, and private land at the lower elevation boundary.

Elevations within the planning area vary from about 4,000 to 9,000 feet. General climatic characteristics are abundant sunshine, low humidity, and high evaporation. Annual precipitation in the Salmon area varies from about 7 inches in the city of Salmon to about 20 inches at the highest elevations in the field office. Precipitation in the Salmon area occurs primarily in the spring and fall as rain with April, May, and June being the wettest months. Summer thunderstorm activity is moderate; however, some storms exhibit high intensity rainfall combined with moderate duration. Summer thunderstorms typically occur over small, sub-watershed-sized areas, and subsequent erosion is generally limited spatially; however, sometimes

downstream impacts such as debris flow deposition and flooding occur.

Although the SFO is in the Northern Rockies physiographic province, the landscape appears more typical of the Great Basin. Major rivers draining the planning area are the Salmon and Lemhi Rivers. These rivers and a number of tributaries are perennial; however the majority of tributary streams are either intermittent or ephemeral. Loss of surface flows to groundwater is very common, generally due to the permeability of coarse alluvial soils in stream channels or the dewatering of streams due to agricultural use. Along the tributary stream channels riparian vegetation is commonly narrow and intermittent. There are numerous springs, generally of small volume, in the headwaters of tributary drainages. Riparian vegetation around these springs varies in extent and vigor.

The existing transportation system (route system) within the planning area boundary includes several county roads, one federal highway, one state highway, and about 533 miles of BLM administered roads, primitive roads and trails. This document addresses only those BLM administered routes and represents the baseline management condition for analysis.

The BLM transportation system is divided into three main categories; roads, primitive roads, and trails:

- *Roads* are defined as “linear routes which are declared a road by the owner, managed for use by low clearance vehicles having four or more wheels, and maintained for regular and continuous use.”
- *Primitive Roads* are defined as “linear routes managed for use by four-wheel drive or high-clearance vehicles. These routes do not normally meet any BLM road design standards.” Primitive Roads account for the majority of the transportation system in the SFO area.
- *Trails* are defined as “linear routes managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles” (Salt et al. 2006).

The majority of roads and trails on public lands within the planning area are primitive and user created. The amount of motorized vehicle use on this network of routes is low to very low with the exception of: 1) the fall hunting season - September, October, and November; and 2) on those routes occurring within a 3-5 mile radius of the city of Salmon which are easy to access. Vehicle use drops off during the winter and spring as a result of snow cover, inclement weather and poor road conditions (December through mid-April).

The existing character of the landscape for the planning area is varied with ranch oriented land uses in the valley bottoms, rolling sagebrush/grass communities on the foothills, and a forest covered mountainous landscape in the higher elevations. Due to the inaccessibility of the terrain, the majority of the routes within the planning area are located on the lower benches with few routes traversing the steep mountainous areas. Visible human developments within the planning

area include roads, transmission lines, fences, structures, agricultural lands, residential homes and outbuildings, and commercial business and associated structures.

### Resources Considered in the Impact Analysis

<i>Table 2. Resources Considered in the Impact Analysis*.</i>				
Resource	Not Present	Present Not Impacted	Present Impacted	Rationale
Access			X	Impacts are disclosed under the Environmental Impacts section.
Air Quality		X		The implementation of any of the four alternatives would not result in the production of vehicle or equipment emission or particulate matter above those described under the Clean Air Act, as amended.
Areas of Critical Environmental Concern (ACEC's)		X		The Sevenmile ACEC exists within the planning area. The area was established as an ACEC due to the unstable nature (slumps, high erosive soils) of the area. No new routes or reroutes are proposed within the ACEC area. The routes designated in the 2001 RMPA were designed to ensure no impacts to the critical resources within the ACEC. The area would continue to be designated limited to designated routes. The resources within the ACEC for which the area was established would not be affected by any of the alternatives and will not be discussed further.
Cultural Resources			X	Impacts are disclosed under the Environment Impacts section.
Economic and Social Values			X	Impacts are disclosed under the Environment Impacts section.
Environmental Justice	X			There are no minority or low income populations residing near the proposed project area.
Existing and Potential Land Uses			X	Any of the four alternatives would have some effect to the existing and potential land uses. These affects are discussed under the Environmental Impacts section.
Fisheries			X	Impacts are disclosed under Environmental Impacts.
Floodplains	X			The identified project area is outside of any FEMA identified floodplains or impacts to these areas.
Forest Resources		X		Forest resources occur within the project area. Access to these areas would continue to be available. None of the actions proposed under the alternatives would affect forest resources.
Prime and Unique Farmlands	X			There are no prime or unique farmlands located within or near the proposed project area.
Invasive, Non-Native Species			X	Impacts are disclosed under the Environmental Impacts section.
Mineral Resources	X			Mineral resources may occur in the project area. None the actions proposed under the alternatives would affect mineral resources. Any new proposals for mineral development would be subject to the mining laws which ensure access.
Migratory Birds			X	Impacts are disclosed under Environmental Impacts section
Native American Religious Concerns		X		There may be Native American Religious values in the planning area. However, no specific concerns or affects have been voiced by the Tribes and will not be discussed further.
Paleontological Resources		X		None of the actions proposed under the alternatives would affect Paleontological resources which may be located in the planning area.

<b>Table 2. Resources Considered in the Impact Analysis*.</b>				
Resource	Not Present	Present Not Impacted	Present Impacted	Rationale
Soil Resources			X	Impacts are disclosed under Environmental Impacts.
Threatened, Endangered, and Sensitive Plants			X	Impacts are disclosed under Environmental Impacts.
Threatened, Endangered, and Sensitive Animals			X	Canada lynx is the only species currently on the ESA list that occurs on BLM lands in Lemhi County. There are no Canada lynx analysis units (LAU) in the project area due to the lack of habitat to support a denning lynx. Sensitive animals or their habitat are found within the proposed project area and impacts are disclosed under the Environmental Impacts section.
Threatened, Endangered, and Sensitive Fish			X	Impacts are disclosed under Environmental Impacts.
Range Resources		X		Several grazing allotments are located within the proposed project area. Livestock would continue to graze and be managed within the TMP area and would not be affected by any of the actions proposed under the alternatives.
Recreational Use			X	Impacts are disclosed under Environmental Impacts.
Tribal Treaty Rights and Interests			X	Impacts are disclosed under Environmental Impacts.
Vegetation			X	Impacts are disclosed under Environmental Impacts.
Visual Resources		X		Design features of the proposed alternatives produce negligible adverse and beneficial impacts. Thus, visual resources will not be discussed further.
Wastes, Hazardous and Solid	X			There are no solid or hazardous wastes in the project area and none would be created during the implementation of the proposed alternatives.
Water Quality (Surface and Ground)			X	Impacts are disclosed under Environmental Impacts.
Wetland and Riparian Zones			X	Impacts are disclosed under Environmental Impacts.
Wild and Scenic Rivers	X			There are no wild and scenic rivers within or near the project area.
Wild Horse and Burro HMAs	X			There are no wild horse and burro HMAs within the Salmon Field Office area.
Wilderness	X			There are no wilderness areas or WSAs within or near the project area.
Wildlife Resources			X	Impacts are disclosed under Environmental Impacts section.

\*- Rationale for Interdisciplinary Team recommendations is required for all "not present" and "present not impacted" situations. For resources that are "present and impacted" a detailed analysis is provided.

### Trends and Assumptions for Analysis

Although the planning area receives less visitor use and associated impacts when compared to most other public lands and regions in the west, certain trends and assumptions can be made while assessing impacts of each of the alternatives. The following fundamental assumptions are common to all alternatives and are expected to influence travel management decisions in the foreseeable future:

- Use levels on roads and trails would increase, particularly near the city of Salmon.

- Conflicts between recreation uses would increase, particularly near the city of Salmon.
- Conflicts occurring along the public and private lands interface would increase.
- Some degree of road proliferation and associated impacts would continue.
- Residential development of private lands adjacent to BLM lands would increase.
- Costs and challenges related to law enforcement and travel management compliance would increase.
- Costs of maintaining and managing the selected travel network would increase.

## **Affected Resource, Direct, and Indirect Impacts of Each Alternative**

### **Access**

#### Affected Environment

Decisions made within the 2001 RMPA resulted in limiting motorized travel within most of the Field Office to “existing vehicle roads, ways and trails [2001 RMPA, pg. 11]”; with subsets of the Field Office “limited to designated roads and trails” (Attachment 1). The United States holds some legal access easements within the planning area. These easements allow legal, public access across private lands. There are other areas where roads accessing public lands cross private lands and there is no legal public access easement. The public must seek permission from the private land owner to cross the private land. Most of the private lands are located in the bottom lands and the public land is located in the uplands. This presents unique challenges in seeking public access across private lands.

#### Effects Common to All Alternatives

The public access easements held by the BLM within the TMP area would continue to be valid under all alternatives until such time the United States decides it is no longer in the public interest to hold these easements. The public would need to continue to seek permission to cross private lands where no easements exist. The SFO would continue to pursue opportunities to acquire public access easements from willing landowners. Acquisition of an easement would include site specific environmental analysis.

#### Alternative 1- Existing Management

Direct/Indirect Impacts: Under the existing management situation, access to public lands would not change. There would continue to be approximately 533 miles of routes designated for travel within the TMP area. Over time, this number may increase should some landowners become willing to allow legal public access across private lands to access public lands. These lands would then be designated for travel. Under this alternative, the BLM would continue to pursue potential access easements across private lands thus increasing the opportunities to access public land.

#### Alternative 2

Direct/Indirect Impacts: Under Alternative 2, motorized travel over approximately 366 miles of existing roads, primitive roads, and trails would be provided. Legal public access through private lands where BLM holds public easements would not change. The BLM would continue to pursue potential access easements from willing landowners. At the present time, there are no

potential access easements being pursued by the Field Office. Roads would continue to be used where an individual holds an authorized right-of-way for an access road across public land to their private land. These roads would continue to be used by the BLM and would be designated, if there is legal public access to get to the right-of-way. If a person needs to cross private land to get to an authorized BLM route authorized under a ROW grant and there is legal public access across the private land, the route would be designated as “open”. If there is no legal public access across the private land, the route would not be designated as “open”.

Access to the public lands may increase as a result of some land owners allowing public access across private lands. Should this occur over time, existing roads on public lands currently restricted by private lands could become designated as “open” and beneficial to the public in accessing public land increasing vehicle use and various recreation opportunities.

### Alternative 3

Direct/Indirect Impacts: Under this alternative, approximately 28 miles of additional motorized access along several routes where legal public access does not currently exist would be designated as “open”. Rights-of-way across public lands authorized to access private land that the public cannot legally access would be designated under this Alternative. The BLM would continue to pursue additional access easements on existing roads crossing private land. This alternative would allow the public the most opportunity for motorized public access across existing roads located on public lands in the project area.

### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Under this alternative, there would be a reduced number of roads designated as “open” for use. Motorized travel would be allowed on approximately 197 miles of designated routes. This alternative would designate a minimal network of vehicle access along the most commonly used roads, primitive roads and trails within the planning area. Over time, those roads which are no longer used would eventually be rehabilitated, either naturally or by man. By reducing these routes, the public would be restricted in access and this may cause pioneered new routes to “pop up” which would cause an increase in needed monitoring and enforcement of the travel restrictions in the field office. By reducing the number of roads in the field office, the opportunity for the public to enjoy their public lands would be greatly reduced. This would limit the use of the public land and increase the potential for unauthorized uses such as off- road vehicle use in non-designated areas. As needed, the BLM would continue to pursue additional access easements across private lands under this alternative.

## **Cultural Resources**

### Affected Environment

The NHPA establishes the federal government’s policy and programs on historic preservation, including the creation of the National Register of Historic Places. Under the NHPA, cultural resources that meet specific eligibility criteria (found in 36 CFR Part 60) may be listed on or found eligible for listing on the National Register. Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places is called a historic property. Historic properties may reflect several kinds of

significance; architectural, historic, archaeological (scientific), engineering, or cultural/traditional. Section 106 of the NHPA (regulations found in 36 CFR Part 800) requires federal agencies to take into account the effects of undertakings on all historic properties. The Idaho State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) are the state and federal agencies responsible for reviewing and assisting in matters of federal cultural resource management and preservation under the NHPA.

The SFO area encompasses approximately 495,000 surface acres, and of these an estimated 72,760 acres (14.7%) have been examined for cultural resources using intensive (Class III) or reconnaissance/sampling (Class II) field strategies. About 48,485 acres (9.8%) of the Salmon Field Office area have received intensive cultural resource surveys. These surveys, although representing a small percentage of the total land base managed by the Field Office, have resulted in the identification and recording of 525 cultural resources. Many have met the criteria for local, regional, or national significance as historic properties, and are eligible for listing on the National Register. Nationally significant segments of the Lewis and Clark National Historic Trail (sections of which are found within the planning area) and the Nez Perce National Historic Trail (outside the planning area) pass through various portions of the Field Office. A number of recorded cultural sites and historic roads or trail features associated with these National Historic Trail routes are determined eligible for National Register listing. The integrity of viewshed associated the Lewis and Clark National Historic Trail in particular is an important BLM management consideration.

The planning area and the SFO area as a whole include values representing both Native American and Euro-American land uses and settlement, attesting of a continuous human occupation from at least 11,000 years ago to the present. Native American archaeological sites and places of traditional importance within the planning area are varied, and include tread evidence of ancient travelways, winter and summer campsites, and hunting, fishing, and gathering locales. Types of cultural resources documented include open encampments and rock shelter habitations, stone tool procurement areas, kill sites and food processing locales, and feature types such as stone circles, alignments, and other arrangements (some of which are related to past religious practices). Found within the planning area as well are public lands inside the boundary of the historic Lemhi Indian Reservation (1875 – 1907). Just outside of the planning area is the Chief Tendoy Cemetery, managed by the SFO in close coordination with the Shoshone-Bannock Tribes. Both of these historic-era properties are of great traditional and spiritual importance to descendants of the Lemhi Shoshone and to the larger Shoshone-Bannock Tribes now at Fort Hall.

Documented Euro-American cultural resources largely date after the 1860s, and range from mining related sites and features, cabins, homesteads and farmsteads, and settlements and town sites, an historic railroad grade, wagon and stage roads and pack trails, to isolated refuse dumps and artifacts, ranching features, historic water conveyances, and a host of other phenomena. Within the current planning area, mining related resources and resources associated with ranching and transportation (both roads and trails) are prevalent.

### Cultural - Effects Common to All Alternatives

Direct and indirect impacts to cultural resources due to vandalism and inadvertent disturbance would be expected to remain at present levels, or to show reductions under the alternatives by designating vehicular travel to specific roads and trails. Road and trail closures or re-routes proposed under any of the alternatives would be reviewed by the BLM archaeologist on a case-by-case basis prior to implementation to assess potential effects to cultural resources, in compliance with Section 106 of the NHPA.

### Alternative 1 – Existing Management

Direct/Indirect Impacts: Under Alternative 1, OHV and non-motorized travel within the planning area would remain as it is currently managed under the 2001 amendment to the Lemhi RMP. Closed and seasonally closed routes would remain unchanged. This alternative would maintain present levels of potential impact to cultural resources, since existing travel limitations were established so as not to impact known historic properties in the planning area. However, under the existing management, the designation “Limited to Existing” is confusing and unclear to the public as to which roads or trails on the landscape may be regarded as “Existing.” This ambiguity has likely contributed in an increase in user-defined “Existing” roads and trails over BLM lands. This increases the probability of inadvertent impacts to cultural resources.

### Alternative 2

Direct/Indirect Impacts: Alternative 2 would designate specific “motorized” OHV roads, along with additional “non-motorized” routes. About 167 miles of existing spur roads, redundant parallel accesses, and roads interfacing private and public land would be closed to motorized use. Alternative 2 route designations in themselves would be unlikely to directly impact known cultural resources. Further, eliminating the “Limited to Existing” designation under Alternative 2 would be beneficial in protecting cultural resources by remedying user confusion as to what is “Existing,” and the subsequent proliferation of user-defined “Existing” roads and trails. All road and trail closures or re-routes proposed under Alternative 2 would be reviewed by the BLM archaeologist on a case-by-case basis prior to implementation to assess potential effects to cultural resources, in compliance with Section 106 of the NHPA.

### Alternative 3

Direct/Indirect Impacts: Impacts and benefits of limitations under Alternative 3 would be the same as under Alternative 2. As with Alternative 2, road and trail closures or re-routes proposed under Alternative 3 would be reviewed by the BLM archaeologist on a case-by-case basis prior to implementation to assess potential effects to cultural resources, in compliance with Section 106 of the NHPA.

### Alternative 4 – Minimum Access

Direct/Indirect Impacts: This alternative would minimize appreciably the network of motorized accesses in the planning area, keeping only the most commonly used roads and trails as designated for use. Reductions in overall miles of designated motorized and non-motorized routes across the planning area would tend to widen distances between travel avenues and cultural resources over the landscape as a whole. Similar to Alternatives 2 and 3, all road and trail closures or re-routes proposed under Alternative 4 would be reviewed by the BLM

archaeologist on a case-by-case basis prior to implementation to assess potential effects to cultural resources, in compliance with Section 106 of the NHPA.

## **Economic and Social Values**

### Affected Environment

According to the U.S. Census, the population of Lemhi County has remained relatively unchanged over the past 30 years. However, population growth in the state of Idaho is on the rise. The growth of urban population centers in Idaho, coupled with technological advances in transportation equipment, has fueled a surge in recreational road and trail riding. The Salmon area has seen an increase in recreational OHV use for hunting and sight-seeing activities by both visitors and local residents. This type of use boosts the local economy by seeing an increase in purchasing of amenities. Travel methods associated with uses traditionally permitted on public lands have also changed. One example of this is in livestock operations, where the traditional use of horses has, in some cases, given way to the use of ATVs and motorcycles. ATV use is a popular form of transportation and recreation in Lemhi County and the city of Salmon supports two local dealerships that provide sales and service.

Growing OHV use on public lands, particularly use occurring near the city of Salmon, has begun to impact the otherwise quiet atmosphere many residents enjoyed in the past. Motorized recreation has resulted in an increase in noise, vehicle-generated dust, spread of noxious weeds and invasive plants, and littering. Throughout the planning area, issues related to unauthorized use on private lands are on the increase as motorized use increases; and as lands adjacent to public lands are bought, sold, and come under residential development.

### Effects Common to All Alternatives

As the population of the city of Salmon and surrounding communities in Lemhi County is expected to increase over time, so is the desire for recreational opportunities. The population in the state of Idaho is also expected to increase over time as individuals are seeking rural relatively secluded communities such as Salmon, which offer vast recreational opportunities. This increase in population in the state may be a result of technological advances in the communications world where individuals are able to tele-commute to work and still live in a remote place such as Salmon. With the increase in population, recreational road and trail use would be expected to increase. With the change in travel methods such as in livestock operations, where the traditional use of horses has, in some cases, given way to the use of ATVs and motorcycles, this type of activity would continue to increase under all the alternatives.

### Alternative 1 – Existing Management

Direct/Indirect Impacts: Under Alternative 1, the available network of existing roads, primitive roads, and trails would remain the same. As motorized use increases incrementally, so would the related impacts such as noise, dust, and user conflicts between motorized and non-motorized uses. These kinds of impacts would result in an increase in costs to monitor, regulate, and control use; and, over time, have the potential to diminish the overall quality of other recreation experiences. Issues related to unauthorized use on private lands and conflicts associated with those designated routes interfacing with private lands would not be addressed under this

alternative. Increasing recreational vehicle use in some locations may also result in shifts of some motorized and non-motorized uses and activities to other locations. The resulting increase of interactions with livestock could have negative economic impacts to livestock permittees, either through vehicle collisions with livestock or reduced rates of livestock weight gain.

#### Alternative 2

Direct/Indirect Impacts: Under Alternative 2, the available network of motorized roads and trails would be reduced approximately 32% over Alternative 1. As a result, impacts such as noise, dust, litter, cutting fences and user conflicts would decrease. Implementing a designated route network and closing existing routes would also result in increases in costs associated with managing vehicle use - signing, constructing physical closures, production of travel maps, public education, and law enforcement.

Issues related to private lands trespass and conflicts associated with roads that interface with private lands would decline under this alternative as user created spur roads are closed where the sole or primary purpose is to provide access from private to public lands. Closing roads that are currently “open” but blocked from public use by private land owners would present unique challenges with regard to signing and compliance. Costs associated with signing and compliance of these roads would also increase.

#### Alternative 3

Direct/Indirect Impacts: Impacts under this alternative would be the same as under Alternative 2 with the following exceptions: 1) there would likely be an increase in the potential for public conflict and dissatisfaction arising out of private landowners controlling access to certain public roads or trails, and 2) there would be an increase in the difficulty and costs associated with managing vehicle use along routes where BLM has no legal access, i.e., signing, constructing physical closures (if needed) and compliance.

#### Alternative 4 – Minimum Impacts:

Direct/Indirect Impacts: Under Alternative 4, the available network of motorized routes would be reduced approximately 64% over Alternative 1, and 36% over Alternatives 2 and 3. As a result, related impacts such as noise, dust, and user conflicts between motorized and non-motorized users would decrease accordingly. Implementing this designated route network and closing existing routes would result in the maximum increase in costs associated with managing vehicle use - signing, constructing physical closures, production of travel maps, public education, and law enforcement.

Issues related to private lands trespass and conflicts associated with roads that interface with private lands would decline as user created spur roads are closed where the sole or primary purpose is to provide access from private to public lands. Closing roads that are currently “open” but restricted from public use by private land owners would result in unique and difficult challenges with regard to implementing closures and compliance.

## **Existing and Potential Land Uses**

### Affected Environment

Existing land uses on public lands in the planning area includes the following:

1. State Highway 28 and U.S. Highway 93 are the two main highways in and out of the city of Salmon.
2. Approximately 12 existing authorized ditches for conveyance of irrigation purposes are issued to private land owners.
3. The Salmon Field Office holds nine public access easements across private or State of Idaho land (Map 12).
4. There are four Land Use Permits issued to adjacent private land owners for use of public land for agricultural or residential use. These are Land Use Permits issued to adjacent private landowners who have public land that has historically been fenced in with their private land.
5. Idaho Power supplies the main source of power into the Salmon River and Lemhi Valleys. All of the transmission and distribution lines crossing public land in the area are authorized by a right-of-way grant.
6. Century Telephone supplies landline telephone service to the area and all of their service lines crossing public lands are authorized. CusterTel has a fiber optic line authorization along the Salmon River Corridor originating from Challis servicing the Salmon River area.
7. There are approximately ten road rights-of-way issued to private land owners for roads crossing public land to access private land.
8. There are approximately 41 grazing allotments with authorized grazing permits located within the TMP area.

### Effects Common to All Alternatives

Current existing authorized uses of the public land within the TMP area would continue to occur under all of the alternatives, until such time the authorization expires and is not renewed, or the authorization is no longer needed. Under all the alternatives, the BLM would continue to process new use applications (ROW, Land Use Permits, etc) on a case by case basis as they are received and each proposed use would require a site specific environmental analysis. Depending on the result of the environmental analysis, some may be authorized. On an annual basis, approximately three applications may be processed in the project area. These uses may be for a short telephone or power line to a private residence, or access road to a private residence.

## **Fisheries/Threatened/Endangered/Sensitive Fish**

### Affected Environment

The project area contains stream habitat for local resident and migrating anadromous fish. The Lemhi River and the Salmon River Watersheds in the project area support a diverse community of fishes including bull trout, westslope cutthroat trout, rainbow trout, brook trout and mountain whitefish, as well as numerous non-game species. It also provides habitat for Snake River spring/summer Chinook salmon, and the Snake River steelhead trout. Historic practices of agriculture and stream diversions, stream alteration and channelization, beaver removal and

irrigation practices have reduced the quality of spawning and rearing habitat available for all salmonid species.

The U.S. Fish and Wildlife Service's (USFWS) 90-Day Species List (File # 1002.0000, 2007-SL-0688) and the NMFS/NOAA (USDC NMFS and NOAA 1993, USDC NMFS and NOAA 2005) identified the following fish species and/or Designated Critical Habitat under the ESA for the Salmon FO:

- Threatened: bull trout, steelhead trout, spring/summer Chinook salmon.
- Endangered: sockeye salmon.
- Designated Critical Habitat for sockeye salmon limited to the mainstem Salmon River.
- Designated Critical Habitat for spring/summer Chinook salmon including the upper Salmon River and its tributaries up to a natural barrier to upstream fish migration.
- Designated Critical Habitat for steelhead trout including the upper Salmon River and the Lemhi River and specifically identified tributaries.
- Designated Critical Habitat – Proposed for bull trout including the upper Salmon River and the Lemhi River and specifically identified tributaries.

Sockeye salmon use the main stem of the Salmon River as a migration corridor to spawning and rearing habitats in the upper Salmon River near Stanley, Idaho. The NMFS has designated the Salmon River main stem as critical habitat for sockeye salmon recovery.

Chinook salmon use the streams in the TMP area entirely for migration and limited rearing. Chinook do not currently use the stream habitat on public land in the TMP area for spawning habitat. Historic fish runs were recorded as occupying most available habitat including the tributary stream of the Salmon and Lemhi Rivers. These fish currently are at a fraction of original runs and highly supplemented with hatchery-raised fish at the Pahsimeroi and Sawtooth Hatcheries managed by IDFG further upriver from the project area.

Steelhead trout are found in the Salmon and Lemhi River drainages and use the large stream channels for rearing and migration habitat. In the TMP area, these fish tend to spawn/rear in tributary streams including Bohannon and Kenney Creeks in the Lemhi River drainage. They also spawn/rear in Tower, Carmen, Hat, Iron, and Williams Creeks in the Salmon River drainage. Like the Chinook salmon, steelhead populations are a fraction of their historic numbers and are greatly enhanced through hatchery supplementation.

Bull trout are currently found in the Salmon and Lemhi Rivers and many tributaries. With the exception of Iron Creek and perhaps Carmen Creek, current populations are most likely limited to the headwaters of these systems due to seasonal dewatering of the tributary streams for irrigation purposes. The migratory portion of the population has likely been severely diminished, if not lost entirely, because of this lack of connectivity between the Salmon and Lemhi Rivers and their tributaries.

Redband/resident rainbow trout and westslope cutthroat trout are found in almost every fish-bearing stream in the TMP area.

### Effects Common to All Alternatives

Fish habitat could potentially be negatively impacted from OHV travel proposed in the TMP. Important effects of OHV activities on soils and watershed function may include soil compaction, diminished water infiltration, diminished presence and impaired function of soil stabilizers and accelerated erosion rates (Ouren et al. 2007). See Water Quality section below. For fish habitat, erosion from roads can reach streams and increase sedimentation, negatively impacting substrate conditions and survival rates of fish.

Stream crossings have the potential to impact fish habitat and migration. Wet crossings have the potential to increase sediment and contaminant inputs into streams which can affect substrate conditions and survival rates. Culvert and bridge crossings can also have the same general effects, but usually to a much lesser degree. Culverts have the potential to fail and washout at flood flows which can have a dramatic effect at least locally to substrate conditions. Culverts can be migration barriers to upstream fish migration, especially for juvenile life-stages.

Existing travel limitations and exceptions identified under the 2001 amendment to the Lemhi RMP would remain in effect under all alternatives. This includes seasonal closures and the ability of the public to travel up to 300 feet from designated routes for direct access to campsites, retrieve downed big game, or harvest forest products, and snowmobile use. As motorized vehicles leave designated routes wildlife could be displaced, and habitat could be impacted by the crushing of vegetation. These impacts would vary based on the miles of designated routes in the alternatives.

### Alternative 1 – Existing Management

Direct/Indirect Impacts: The Existing Management Alternative would be expected to continue to produce limited erosion and subsequent sedimentation into perennial and intermittent stream channels in the TMP area. Some of the fish-bearing streams assessed by DEQ have shown measurable impacts to water quality and potentially fish habitat characteristics. These include McDevitt, Wimpey, Bohannon, Geertson and Kirtley Creeks. Of these, McDevitt and Bohannon Creeks are the streams containing public roads in the existing TMP area with a measureable affect to fish habitat (DEQ 2007). The remaining streams in the TMP area would not be impacted from sediment or water quality concerns in a way that can be measured or discerned. These areas are relatively stable and do not impact fish habitat.

Overall, ESA listed fish and their Designated Critical Habitats would be minimally impacted from road erosion and stream sedimentation. No new adverse effects to federally protected fish species and associated critical habitat on BLM SFO-managed land would be expected.

**Table 3. Routes within 300 feet of Fish-Bearing Streams.**

<b>Fish-bearing Stream in TMP</b>	<b>Road Length within 300 feet (miles)</b>	<b>Fish-bearing Stream in TMP</b>	<b>Road Length within 300 ft (miles)</b>
Perreau	1.4	Kenney*	1.8
Williams	1.3	Sandy	1.1
Deer	1.0	Pratt	3.5
Iron*	1.0	Wimpey*	0.4
McKim	0.4	Bohannon*	1.0
Withington*	2.1	EF Bohannon	0.7
Haynes	2.0	Geertson*	3.4
McDevitt	8.0	Kirtley	0.7
Salmon River* <sup>1</sup>	0.5	Carmen/ Freeman*	1.7
		TOTAL	32.0

\*ESA listed fish habitat exists on these tributary streams

<sup>1</sup>Tower Creek Bottoms

Stream crossings have the potential to impact fish habitat and migration. Culverts can be migration barriers to upstream fish migration, especially for juvenile life-stages. The existing management road system has nine wet stream crossings (Perreau, Haynes, McDevitt, Kenney, WF Sandy, Pratt (2), Bohannon and Geertson), 3 partial migration barrier culverts (Withington, Haynes, McKim), and six fish-passable culverts (McDevitt (5), Bohannon) in the TMP area on fish-bearing streams. Bull trout exist in Kenney and Geertson Creeks on public land. Each has a road wet crossing which has very limited potential to affect bull trout habitat due to the rocky nature and very limited erosion. Bull trout are not present on the other streams, except for Bohannon Creek which does not have a crossing on public land.

Overall, ESA listed fish and their Designated Critical Habitats are minimally impacted from road erosion and stream sedimentation. No new adverse effects to federally protected fish species and associated critical habitat on BLM SFO-managed land would be expected. These activities were consulted on and concurred with for impacts to ESA listed fish with NMFS and USFWS under the 2001 amendment to the Lemhi RMP.

Alternative 2

Direct/Indirect Impacts: Under Alternative 2, there would be 167 fewer miles of road as compared to the Existing Management, which would slightly reduce impacts to fish and fish habitat. This would include reduced negative impacts to sediment and substrate conditions, riparian vegetation, instream cover and potential contaminants.

Alternative 2 would be expected to have a slight reduction in the amount of erosion generated from road impacts that could reach stream habitat currently occupied by ESA listed fish or sensitive fish species as compared to the Existing Management. No changes to fish-bearing stream crossings or culverts would be expected.

### Alternative 3

Direct/Indirect Impacts: The impacts of Alternative 3 would be similar to the existing conditions but with a slight reduction. This would occur with regard to sediment and potential contaminants generated from the road system with fewer miles of travel ways. Alternative 3 would allow 139 fewer miles of roads than the existing condition. This would be expected to have a slight reduction in the amount of erosion generated from road impacts that could reach stream habitat currently occupied by ESA listed fish or sensitive fish species. No changes to fish-bearing stream crossings or culverts would be expected. Under Alternative 3, there would be an additional 28 miles of roads, along stream habitat. The stream crossing impacts would be very similar to Alternative 2.

### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Impacts to fish habitat from Alternative 4 would be significantly less (336 miles) from the existing management and alternatives. It would substantially decrease the roads and thus would potentially reduce the amount of erosion and associated sedimentation to the stream channels. Alternative 4 would decrease the routes adjacent to fish-bearing streams by one mile. The potential amount of erosion and associated sedimentation to the stream channels with ESA/sensitive fish would be expected to decrease slightly. Over time, this alternative would have a slight increase in stream habitat quality including slight improvements to substrate conditions, riparian vegetation, stream temperature and cover. No changes to fish-bearing stream crossings or culverts would be expected.

## **Invasive, Non-native Species**

### Affected Environment

Noxious weed species are non-native, invasive plant species that can germinate under a wide variety of conditions, establish quickly, exhibit fast seedling growth, and out-compete native species for water and nutrients. They can ultimately take over native rangeland and forest habitat and reduce productivity and biological diversity. The State of Idaho currently recognizes 57 species of noxious weeds requiring control measures. Of the 57 species listed, 18 occur on lands managed by the Salmon Field Office (SFO) within the TMP area. Another three species are not listed but require treatment as well. The State listed species occurring within the planning area are black henbane, dalmatian toadflax, field bindweed, hoarycress, houndstongue, Japanese knotweed, leafy spurge, musk thistle, broadleaved (perennial) pepperweed, field (perennial) sowthistle, puncturevine, purple loosestrife, rush skeletonweed, Russian knapweed, spotted knapweed, saltcedar, Scotch cottonthistle and butter and eggs/yellow toadflax. The other three species not listed include hoary alysium, bull thistle and Canada thistle.

Many weed species are “colonizer” species, which means they can readily colonize areas that have been previously disturbed or lack plant cover. Noxious weeds often produce numerous seeds which can be transported long distances by wind, wildlife, humans, and water. In general, travel routes are the primary conduit for the spread of non-native invasive plants into natural areas. This is especially apparent on the primitive roads and trails used by a wide variety of recreationists. Isolated weed infestations are often discovered adjacent to primitive roads and

trails where weeds seeds carried in mud or trapped in the under carriages of vehicles dislodge from the vehicle and fall to the ground, germinate and become new weed infestations.

The SFO is an active member of the Lemhi Coordinated Weed Management Area (LCWMA), which includes private, county, state, and federal partners. This group has devised a county-wide plan for combating noxious weeds. The highest priorities in Lemhi County are to keep weed-free areas weed-free, prevent the establishment of new species of weeds, and contain the existing populations of leafy spurge and spotted knapweed. The northern portion of the SFO area has been designated a special weed management zone, due to leafy spurge populations. With increased primitive road and trail density, the threat of new weed infestations increases. The most extensive infestations of weeds in the SFO are spotted knapweed and leafy spurge. Both are aggressive invaders capable of dominating the landscape in a variety of habitats. Canada thistle is a prevalent invader in riparian areas of the SFO. Cheatgrass is also present mostly in the northern half of the SFO but is slowly increasing throughout the SFO area. The SFO, in coordination with the LCWMA, employs an integrated approach to weed management on public lands that includes herbicide treatment, biological control, manual control and restoration measures.

#### Effects Common to All Alternatives

Weed establishment and spread would occur under all alternatives though the degrees of impact would differ somewhat with the amount of road mileage open under the different alternatives. Season of use and type of vehicles used may also have an impact on the amount of weed spread and new establishment.

#### Alternative 1 –Existing Management

Direct/Indirect Impacts: Under the existing management alternative, with the existing network of roads and a potential increase of unauthorized roads it is expected new noxious weed infestations would continue to become established and expand into non-infested areas. Although most open roads are treated annually or on a rotation basis, the greatest threat comes from machinery coming from outside areas transporting either weed species that are already present or establishment of new weed species infestations that immediately become a high priority for control if or when detected. Based on past recordings of new weed infestations along road corridors, it is safe to say that approximately 1 to 2 acres of new infestations would be detected and treated in the analysis area each year.

#### Alternative 2

Direct/Indirect Impacts: Under Alternative 2, the impacts of new invader weed establishment and spread would be reduced due to the 32% reduction or 167 less miles of roads that weed carrying vehicles would have access to in the planning area.

#### Alternative 3

Direct/Indirect Impacts: Under Alternative 3, approximately 139 miles of roads would not be designated as open for vehicle use. The impacts of weed spread and the risk of new invader infestations would be similar to Alternative 1. With 139 miles fewer roads available under

Alternative 3, new infestations would likely be less than the 1-2 acres estimated under Alternative 1.

#### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Under Alternative 4 the impacts of new invader weed establishment and spread would be reduced due to the 64% reduction or 336 less miles of roads that weed carrying vehicles would have access to in the planning area.

### **Recreation Use**

#### Affected Environment

Recreation opportunities in the SFO area are diverse, ranging from dispersed use to developed campgrounds with paved surfaces, vault restrooms, water, and other amenities. Recreational activities include hiking, fishing, boating, camping, backpacking, wildlife viewing, mountain biking, OHV riding, scenic driving, hunting, and photography. Most recreation activity occurs during the summer and is concentrated at developed recreation sites occurring along the Salmon River corridor. Dispersed recreation use is most popular in the backcountry during the fall hunting season. Currently, ten outfitters have special recreation use permits to guide hunting, fishing, horse packing, and/or river floating trips. The project area also includes a Recreation and Public Purposes Act lease to Lemhi County for the management and operation of the Sacajawea Motorsports Park. The park is located approximately two miles north and east of the city of Salmon. The park is popular with local motocross enthusiasts and is a venue for annual motocross competitions.

Although growing, off-highway vehicle use in the SFO area is relatively low compared to more populated regions within the state of Idaho. The current transportation network within the planning area is, for the most part, an inherited system of unplanned roads and trails totaling about 533 miles. Many of these routes were created by the passage of vehicles in support of activities such as grazing, mineral exploration and timber production. Routes were often pioneered or constructed in the most direct manner possible to a specific location and for a specific need. Over time, the use of many of these routes has become recreational in nature as ATVs have become an increasingly popular form of recreation and transportation, especially for hunters. In 1988, 8% of respondents to an Idaho Fish and Game (IDFG) survey of elk hunters stated that they always use an ATV as a mode of travel for hunting, while 83% stated that they had never used an ATV for this purpose. In a repeat survey in 2000, 7% of hunters stated that they always used an ATV, while 35% said they never travel by ATV (Sanyal 2002). Inappropriate use of ATVs by some hunters has become a point of contention in recent years, prompting the Idaho Department of Fish and Game to issue special regulations related to the use of ATVs while hunting.

The open topography and low-lying vegetation of the region allows for easy cross-country pedestrian and equestrian access. Game trails and primitive roads are also commonly used as non-motorized trails. The current management situation allows for non-motorized recreation to occur anywhere on public lands.

The planning area includes portions of the Lewis and Clark National Historic Trail Special Recreation Management Area (LCNHT/SRMA) (Map #11). According to the 2001 amendment to the Lemhi RMP, management of the LCNHT/SRMA shall provide for the education and enjoyment of visitors while simultaneously retaining natural aspects of the historic trail route and protecting the integrity of intact segments of trail tread and associated cultural sites.

Approximately 2,800 acres of the LCNHT/SRMA occur within the planning area which is located approximately two miles northeast of the city of Salmon, and includes the Discovery Hills Recreation Area (DHRA). The DHRA provides two parking areas, a vault toilet, an information kiosk, and an overlook trail with several interpretive panels. The DHRA is a popular and easily accessible destination for the public. The area provides a compliment of access to meet the needs of hikers, bikers, joggers, equestrians, motorized users, and those interested in the history of the LCNHT. To date, motorized vehicle restrictions in the area have proven challenging to enforce due to repeated vandalism of signs and difficulties associated with physically restricting use along primitive roads occurring on relatively flat or gentle terrain. Motorized vehicle use within the SRMA is limited to designated routes under the current management situation, with no restrictions on non-motorized use.

#### Effects Common to All Alternatives

Recreation opportunities at developed recreation sites would remain unchanged regardless of the alternative implemented. The action of implementing a travel plan would not alter the experience or opportunity for camping, hiking, fishing, or many other activities that are popular at developed recreation sites. Another effect that remains consistent across the alternatives is replacing the “limited to existing” with a “limited to designated” route category would result in a more coherent travel system by eliminating the confusion arising between the two designations. This would also improve the BLM’s ability to properly sign and map a route network, and educate and inform the public accordingly.

For the foreseeable future, the LCNHT/SRMA would likely experience a modest but steady increase in motorized and non-motorized recreational activity. Along with increasing use come the costs associated with maintenance, rehabilitation, signing, and compliance. Under all alternatives, management of the LCNHT/SRMA would provide for the education and enjoyment of visitors while simultaneously retaining natural aspects of the historic trail route and protecting the integrity of intact segments of trail tread and associated cultural sites. The Discovery Hills Recreation Area would continue to provide two parking areas, a vaulted toilet, an information kiosk, and an overlook trail with several interpretive panels. The DHRA is a popular and easily accessible destination for the public. The area provides a compliment of access to meet the needs of hikers, bikers, joggers, equestrians, motorized users, and those interested in the history of the LCNHT. There are currently no exclusive use trails within the LCHNT/SRMA.

#### Alternative 1 – Existing Management

Direct/Indirect Impacts: Alternative 1 provides the maximum opportunity for motorized access and recreation, allowing continued use of the existing road, primitive road, and trail network. While this alternative provides the maximum opportunity for motorized recreation and access, a sustainable vehicle route network would not be defined, leaving the area susceptible to increasing route proliferation due to unauthorized cross country travel. Additionally, this

alternative does not address many of the concerns and recommendations provided during public scoping, work group meetings, and during agency interdisciplinary review. These recommendations could serve to enhance recreation opportunities, reduce user conflicts, and reduce impacts to cultural and natural resources. For example, loop riding would not be emphasized, duplicate or redundant routes would not be eliminated, and there would be no provisions for relocating routes in more sustainable locations.

### Alternative 2

Direct/Indirect Impacts: Under Alternative 2, the opportunity for motorized recreation on existing routes would be reduced by about 32% over the existing management situation (Alternative 1). A significant portion of the routes, however, are user created routes that would physically not withstand sustained use. Additionally, the reduction in recreation opportunity would not be in direct proportion to the total miles of closure as most of the reduction would result from closing duplicate or redundant routes, and those routes already “closed” to public use as a result of restricted access through private lands.

Increasing the amount of roads limited to ATVs and smaller vehicles from about eight miles under the current plan to about 43 miles under this alternative would increase user safety by restricting full size vehicles from the use of narrow and steep routes that are less suitable for the safe passage of full size vehicles. This alternative would also provide for an overall increase in the opportunity and quality of non-motorized recreation pursuits such as hunting on foot, hiking and wildlife viewing in areas where both motorized and non-motorized recreation opportunities exist.

Under Alternative 2, motorized vehicle access within the LCHNT/SRMA would increase about 1.5 miles as a result of designating 1.5 miles of existing road to provide a motorized loop that circles the perimeter of the SRMA. While adding this motorized route within the SRMA has the potential to increase in the opportunity for impacts to nearby cultural resources, the intended purpose is to reduce persistent, unauthorized off-road use in the SRMA. This would be accomplished by providing the public with a satisfying motorized loop that moves traffic away from sensitive cultural resources. Monitoring use would determine the success of this strategy or the need to change or further restrict motorized use within the SRMA. This alternative also proposes to open two short segments of an existing road, about .3 mile, to provide access to the remarkable vistas available along the rim of the river bluffs overlooking the Salmon River Valley.

### Alternative 3

Direct/Indirect Impacts: Recreation related impacts under this alternative would be the same as under Alternative 2 with one exception, there would be an increase of approximately 28 miles of additional motorized routes. These additional miles could potentially be a strong source of contention with private land owners and would increase recreation conflicts on public lands.

Impacts to the LCNHT/SRMA under Alternative 3 would be the same impacts previously described under Alternative 2.

#### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Under Alternative 4, the available network of motorized routes would be reduced by about 64% over Alternative 1, and 36% over Alternative 2. Designated routes limited to ATV and two wheeled motorized vehicle use would remain the same as with the current management situation, but reduced by approximately 35 & 39 miles when compared to Alternatives 2 and 3 respectively. Compared to all other alternatives, this proposal would provide the highest quality experience for non-motorized recreation such as hunting on foot, hiking and wildlife viewing in areas where non motorized and motorized recreation co-exists, such as the Discovery Hills area. The limited route network proposed under Alternative 4 would increase recreation based conflicts by concentrating multiple uses in areas with high recreation value and opportunity. This alternative provides the least amount of public access and recreation opportunity and would not be compatible with existing recreation demands.

### **Soil**

#### Affected Environment

The SFO area exhibits many diverse and complex soil patterns due to a broad range in elevation, rainfall, and temperature. Each soil series in the area was formed as a result of different dominating forces. These forces are reflected in soil properties such as texture, drainage, degree of development, permeability, and infiltration rate. Soil properties and slope, in turn, affect erodibility and soil productivity.

Three major soil parameters are affected by various land uses: compaction, erosion, and productivity. Some soils in the planning area have already been affected by past use and numerous areas currently have some severe accelerated erosion problems, and other areas could develop erosion problems because of potentially high-eroding soil types (high clay content). Various recreational and land use activities and practices, especially motorized types, in some areas, have affected soil density and decreased pore space, thereby increasing soil compaction and decreasing infiltration rates. Decreased infiltration rates result in increased runoff, which increases the potential for soil erosion. Soil erosion affects the area being eroded as well as the waters receiving the eroded material. Erosion of the nutrient-rich topsoil, where most of the organic material is found, reduces site fertility. Sediment, the by-product of erosion, adversely affects water quality and fish habitat and fills reservoirs.

Soils found within the SFO area are usually moderately deep (20-40 inches) to deep (greater than 40 inches). The soils are mostly gravelly clay loams with low organic contents, extremely friable, and dependent on ground cover for stability. Soil types range from sandy loams and silty loams derived from silicic volcanic rocks (e.g., rhyolite), to clay loams derived from basalts and similar intermediate to mafic volcanic rocks. Similar soil types result from the erosion of the sedimentary, metamorphic, and igneous rocks in the planning area. The bulk of the soil types in the planning area include: clay, clay loam, silty clay loam, silty clay, silty loam, loam, sandy loam and sandy clay loam. Coarse fractions in the soils locally are associated with transported type soil formations (e.g., alluvial, fluvial, and colluvial) and contain angular to rounded clasts up to cobble size (ca. 1 to 2 foot diameter). The coarse fractions of local soil formations in the planning area range up to greater than 50 percent.

### Effects Common to All Alternatives

Common environmental impacts on soils, regardless of the alternative, relates directly to the amount and type of soil exposure in the project area. Soils are more susceptible to weather related erosion in disturbed (and de-vegetated) areas as in road cuts. Impacts on soils, therefore, would vary as to the amount of, and use of, the exposed soil commensurate with the alternative chosen. The primary effects of vehicle activity on soils include altered soil structure (soil compaction in particular), destruction of soil crusts (biotic and abiotic) and desert pavement (fine gravel surfaces) that would otherwise stabilize soils, and soil erosion. Indicators of soil compaction include soil bulk density (weight per unit of volume), soil strength (the soil's resistance to deforming forces), and soil permeability (the rate at which water or air infiltrate soil). Generally, soil bulk density and strength increase with compaction, whereas permeability decreases with compaction. As soil compaction increases, the soil's ability to support vegetation diminishes because the resulting increases in soil strength and changes in soil structure (loss of porosity) inhibit the growth of root systems and reduce infiltration of water. As vegetative cover, water infiltration, and soil stabilizing crusts are diminished or disrupted, the precipitation runoff rates increase, further accelerating rates of soil erosion (Ouren et al., 2007).

### Alternative 1 –Existing Management

Direct/Indirect Impacts: Under Alternative 1, impacts to the planning area soils would not change from existing condition, assuming a continuation of current management practices. This would also assume there would be no change in current use.

### Alternative 2

Direct/Indirect Impacts: The obvious primary change in soil impacts would be a positive result from 167 miles of road closure and the associated reduced vehicle use under Alternative 2. This soil impact reduction compared with Alternative 1 would be proportional to the decrease in motorized use due to the closures of some roads. The net soil impact reduction caused by less vehicular use from the closed roads may, however, be modified by an increase in vehicular use over the remaining roads.

Negative soil impacts occur both naturally and as a result of human activities. Soil erosion in areas undisturbed by these activities that result from weather events or other natural causes (e.g. earthquakes) would not change under any of the four alternatives. Maintenance work designed to mitigate soil erosion on active roads would be reduced under this alternative relative to the decrease in open road mileage; but closed roads would require, at least, initial work to reduce the effects of erosion.

### Alternative 3

Direct/Indirect Impacts: Alternative 3 is described as essentially the same as Alternative 2 with the exception of the addition of 28 miles of motorized access. The effect on soils with this alternative would vary depending on: locations of these additional roads; soil types; topography; and amount of vehicle use. The net result would be a possible increase of impacts on soils in the planning area, but these may be offset by a reduction in soil impacts in the closed areas.

Alternative 4 – Minimum Access:

Direct/Indirect Impacts: Alternative 4, with its minimal amount of open roads, would offer the least amount of soil impact relative to roads travel by vehicles. This, would possibly be modified by an increase in vehicle use of the even fewer available roads. Compared to all the other alternatives, this alternative would result in minimal soil impacts that are directly related to vehicle use.

**Tribal Treaty Rights and Interests**

Affected Environment

The entire Salmon Field Office area falls within the traditional subsistence range and occupation sphere of the Shoshone-Bannock Tribes as established by the Indian Claims Commission (ICC) in the 1950s and 1960s. Article IV of the Fort Bridger Treaty of July 3, 1868 (15 Stat. 673) specifically reserves the right of the Shoshone-Bannock Tribes to hunt, fish, and gather natural resources on the “unoccupied land,” now understood to be federal lands. Today, members of the Shoshone-Bannock Tribes continue to exercise reserved treaty rights within the Field Office area.

The BLM has a Federal Trust responsibility to honor treaty rights and to make land management decisions that do not directly or indirectly infringe or abrogate treaty rights. Part of the BLM’s trust responsibility entails coordinating openly and candidly with tribal governmental entities in government-to-government consultation when proposed actions have the potential to impact access to or exercise of treaty reserved interests (clarified in Executive Order 13175, November 6, 2000). The BLM is mandated to provide for this while still meeting its multiple use land and resource management responsibilities to all of the nation’s people.

Effects Common to All Alternatives

The BLM’s trust responsibilities to consider resources critical in the practice of Shoshone-Bannock Tribal treaty rights has contributed heavily in the resulting need for designated travel management as a means of curtailing resource impacts caused by un-managed motorized travel over public land. Closed or seasonally closed routes in each of the alternatives present various limitations to motorized non-treaty rights access. Still, access by way of non-mechanized means would remain over the entire planning area under all alternatives.

Under all alternatives, the BLM would continue to provide for motorized access to exercise tribal treaty rights and ceremonial activities.

Alternative 1 – Existing Management

Direct/Indirect Impacts:

No changes to current Salmon Field Office management of roads and trails would take place under Alternative 1. The change in limitations from “Existing” to “Designated” routes would essentially result in the same impacts as specified in the 2001 amendment to the Lemhi RMP.

### Alternative 2

Direct/Indirect Impacts: Access issues are of prime importance in relation to the Shoshone-Bannock Tribes' reserved off-reservation treaty rights. Alternative 2 would result in a reduction in miles of designated motorized roads across the planning area for non-treaty rights activities. Alternative 2 would further close redundant paralleling roads, routes blocked by private lands, and specific spur roads that exist within the planning area. In addition to implementing item #4 of "Actions Common to Alternatives 2, 3 and 4," four re-routed OHV access routes would be built that would allow safer and easier ingress-egress onto public lands for exercise of treaty rights. Though overall OHV motorized access would not be appreciably altered in Alternative 2, there would be a net decrease in the number of alternative routes available from which to access the same areas. This tendency is countered somewhat by a substantial increase in proposed designated ATV access routes. Increased ATV presence in some areas may be expected to adversely impact distribution or behavior of wildlife, while at the same time affording ease of entry into otherwise remote areas. Access to all of the public land within the planning area is of course open by non-mechanized means, as well.

### Alternative 3

Direct/Indirect Impacts: Impacts to tribal treaty rights access issues under provisions of Alternative 3 would be similar to those outlined in Alternative 2, with a slight increase in miles of available designated motorized OHV roads along routes that currently interface with public and private ownership conflicts. Designated ATV access routes would remain the same as Alternative 2. Non-mechanized access would be afforded over all of the public lands within the planning area.

### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Alternative 4 would reduce OHV motorized routes across the planning area to approximately 64% from the present condition. Substantial reduction in the number of road miles available for use by motorized means would be expected to benefit wildlife habitat and hunting success. Fewer motorized vehicles over the landscape would also yield a heightened sense of "remoteness" and seclusion, conducive to aspects of treaty rights and other traditional or ceremonial practices by tribal members.

## **Vegetation**

### Affected Environment

The travel management planning area includes eight classes of land cover as defined in BLM ID-IM 2009-053. Using the Northwest ReGap (USDI-BLM, 2009), these classes are Forest and Woodland (22.6%), Mesic Shrubland and Grassland (1.0%), Semi-desert Shrubland and Grassland (75.1%), High Montane Vegetation (0.3%), and Sparse Vegetation and Natural Barren Areas (0.2%). Agriculture, Urban and Other Developed Lands, and Open Water are additional categories that are not discussed because they are not considered to be vegetative communities for these purposes. A plant "common to scientific" name crosswalk is provided in Attachment 2.

Elevation, slope, aspect, precipitation and soil type are the primary determinants of vegetative cover type. In general, the foothills and the lower half of the mountains are rangelands. With

increases in elevation, rangelands give way to woodlands and forest. The ecotone between range and forest moves up or down slope depending on aspect. Drier south and west aspects support rangeland communities to higher elevations, while north and east slopes support forest stringers deeper into the valley.

### ***Forest & Woodland***

The Forest and Woodland land cover type occupies 22.6 % of BLM-administered land within the assessment area. Forest and woodland acres are found primarily at higher elevations and on more mesic sites on north and east facing slopes. A wide elevation range promotes a diverse mixed conifer forest. The higher elevations of the mountains are forested with Douglas-fir, lodgepole pine, limber pine, Engelmann spruce, subalpine fir, and whitebark pine. Numerous aspen stands and two species of cottonwood, black cottonwood and narrowleaf cottonwood, contribute to structural diversity and canopy cover.

Understory species found in these communities may include bog blueberry, dwarf bilberry, snowberry, kinnikinnik, heartleaf arnica, raceme pussytoes, lupine, Indian paintbrush, fleabane, groundsel, pinegrass, Idaho fescue, and bluebunch wheatgrass in the more open areas. These species are limited mostly by sunlight availability (a function of forest canopy cover) and soil characteristics, such as depth and nutrient availability.

Scattered, isolated patches of curl-leaf mountain mahogany are found on rocky slopes and ridges in the planning area. It provides year-round cover and forage for deer and is a crucial source of winter forage for many wildlife species.

Upland plant composition along the forest/mountain big sagebrush ecotone, and within mid-elevation aspen stands within the planning area, is changing toward a more conifer-dominated community. Aerial photographs show the spread of coniferous forest species downslope onto benches previously dominated by mountain big sagebrush and cool season grasses. The spread of primarily Douglas-fir can be attributed, in part, to the reduced frequency of wildfire.

### ***Mesic Shrubland & Grassland***

The Mesic Shrubland and Grassland cover type, comprising approximately 1 % of the of BLM-administered land in the assessment area, includes natural vegetation dominated or characterized by shrub and/or herb species requiring environmental conditions of moderate moisture and temperature or which are only partially protected against desiccation (USDI-BLM, 2009). For the assessment area most of the vegetation that falls in this type is considered riparian and is discussed in the riparian section of this document.

### ***Semi-desert Shrubland & Grassland***

The Semi-desert Shrubland and Grassland cover type includes natural vegetation dominated or characterized by shrub and/or herb species having structural or functional adaptations to prevent water loss by evaporation (USDI-BLM, 2009). The majority of the assessment area (75.1%) is mapped as this type. This land cover type includes various ecological sites.

Much of the semi-desert type is dominated by Wyoming big sagebrush with a bluebunch wheatgrass or Sandberg bluegrass dominated understory. As elevation and amount of precipitation increases, there is a shift to mountain big sagebrush with an Idaho fescue dominated understory. Within these two cover types exists a mix of other vegetation types, such as threetip sagebrush with an understory of Idaho fescue and low sage-brush with bluebunch wheatgrass. These two types tend to occur in transition areas between the Wyoming big sagebrush sites and the higher elevation, moister sites that support mountain big sagebrush. Other grasses typically found within this cover type include squirreltail, prairie Junegrass, needle and thread, and Indian ricegrass.

Forbs commonly found within this cover type include long leaf, hood, and flowery phlox, low and rosy pussytoes, Lewis flax, milkvetches, locoweeds, pale agoseris/mountain dandelion, tailcup and velvet lupine, granite prickly phlox, mariposa lily, cushion, sulphur-flower, and parsnipflower buckwheat, Franklin's and King's sandwort, low larkspur, nailwort, maiden blue eyed mary, fernleaf biscuitroot, nineleaf biscuitroot, and many others.

In 1983 an ecological site inventory was completed in the planning area. At that time, about 45% of the TMP area was in good condition, about 33% was in fair condition, about 21% was unmapped, and less than 1% each fell into the excellent and poor conditions (USDI-BLM, 1987). Condition generally correlates with slope; the gentler hills and flats near the valley bottom tend to be in fair condition, and the steeper hills and higher elevations tend to be in good to excellent condition. These condition ratings are based on what kinds and proportions of native plant species could grow on a site versus what is actually there. Many of the sites should support bluebunch wheatgrass and/or Idaho fescue, 15-25% canopy cover of sagebrush, and a variety of forbs (broad-leafed plants, wildflowers). Often the fair and poor sites are rated as such because they lack an adequate component of bluebunch wheatgrass and native forbs due to historical overuse by livestock. In some of these communities, a shift in the grass component has occurred; the presence of shallow rooted grasses (e.g. Sandberg bluegrass) or annual grasses (e.g. cheatgrass) have increased and the presence of deep rooted grasses (e.g. bluebunch wheatgrass) has decreased. These shifts in community composition are departures from what is believed to have historically existed on these types of rangelands.

These communities also have a biotic crust that is comprised of mosses, lichens, and algae that form a protective covering for the soil between the larger plants. It functions as living mulch for desert soils, helping to catch and retain moisture and prevent overland runoff. In addition, some species act as nitrogen fixers, adding significant amounts of that critical nutrient to the soils. These crusts develop to the greatest degree on fine-textured soils, and to the least degree on rocky soils. From general observations, the condition of the biotic crust in the planning area correlates with general range condition, because it is reduced by heavy livestock trampling.

### ***High Montane Vegetation***

The High Montane Vegetation cover type comprises approximately 0.3% of the BLM administered land in the planning area. It includes natural vegetation dominated or characterized by shrub and/or herb species having structural or functional adaptations to survive cold

temperatures and resist frost damage (USDI-BLM, 2009). Most of this cover type in the assessment area is found on lands managed by the USFS.

### ***Sparse Vegetation & Natural Barren Areas***

The Sparse Vegetation and Natural Barren Areas land cover type, comprising approximately 0.2% of the BLM administered land in the planning area, includes natural vegetation dominated or characterized by shrub, herb, or nonvascular plant species having structural or functional adaptations for living on rock surfaces or on rocky substrates. Vegetation is scattered or nearly absent; total vegetative cover, excluding crustose lichens, is generally 1-10% at the peak of the growing season. Vegetation may include low-growing plants such as Hood's phlox, nailwort, and low pussytoes. Natural areas (undisturbed by man) where vegetation is generally less than 1% of the surface area are included in this category (USDI-BLM, 2009). These sites are rare in the assessment area; the rock faces above timberline represent most of the area considered in the land cover type.

### ***Effects Common to All Alternatives***

Travel routes and motorized vehicle use have variable impacts on vegetative cover. A one-time occurrence of vehicle traffic would have negligible (lowest level of detection and causes very little or no disturbance) effects to most vegetation (either on the route or alongside the route). Occasional disturbance could have minor (slight but detectable, with some perceptible effects of disturbance) effects, displacing species sensitive to soil compaction and defoliation. Frequent, repeated use may have moderate (readily apparent and measureable) effects, displacing most native perennial vegetation with annual grasses and weedy forbs. Intense, constant use results in an eroded state supportive of only the most disturbance-tolerant vegetation (Goran et al. 1983).

Impact timing, duration (short or long term) and intensity drives the level effect to vegetation. Impact intensity (degree or level of effect) to vegetation can be life-form specific (for example, shrub vs. grass) and dependent on factors such as traffic volume, season and timing of use, and the amount of vegetative cover along travel routes. Individual plants, or groups of plants, are directly affected by vehicle disturbance in several ways. Plants found in wetland soils, or those with woody stems (*e.g.*, sagebrush), would be more susceptible to long term adverse effects than would herbaceous, non-woody vegetation (*e.g.*, Sandberg bluegrass) found on drier, more stable soils. Soil compaction from vehicle use affects plant growth by reducing moisture availability and precluding adequate taproot penetration to deeper soil horizons. Above-ground portions of plants can be reduced through breakage or crushing, potentially leading to reductions in photosynthetic capacity, poor reproduction, and diminished litter cover. Likewise, blankets of fugitive dust raised by traffic can disrupt photosynthetic processes, thereby suppressing plant growth and vigor, especially along more heavily travelled routes. In turn, reduced vegetation cover may permit invasive and/or non-native plants, particularly shallow-rooted annual grasses and early successional species capable of rapid establishment and growth, to spread and dominate the plant community, thus diminishing overall endemic biodiversity (Ouren et al., 2007).

Also common to the local and regional landscape are impacts from subdivision and development, agricultural conversion, mining, invasive plants, grazing, fire, and so forth. Some of these

activities, such as subdivision and development, agricultural conversion, and mining, result in a decrease in cover of native vegetation, although over time, some of these lands are reclaimed either naturally or through active reclamation planning. Some activities, such as grazing and fire, do not negatively affect native vegetative communities provided correct grazing management is in place and weeds do not invade and come to dominate the landscape. Both locally and regionally, native plant communities are most threatened by competition from invasives such as cheatgrass, medusahead wildrye, spotted knapweed, rush skeletonweed, leafy spurge, and yellow starthistle. Pro-active, well-organized, and well-funded integrated weed management programs can help reduce negative impacts from invasive plants both locally and regionally.

#### Alternative 1 – Existing Management

Under Alternative 1, impacts to the planning area vegetation would change at the same rate as current management. Users would continue to utilize existing roads, primitive roads and trails, although use would increase minimally over time as population increases. Native vegetation would continue to exist along roadsides, in the middle of many primitive roadways, and along trails. Plants persisting in tire tracks would continue to be driven over and would be damaged by tires and pressure exerted by vehicle weight and traction. Some low-growing herbaceous plant species may persist over time, while more delicate woody species would remain suppressed or excluded from roadbeds due to repeated vehicle-related damage. Plants existing outside of roads, improved roads and trails would be driven over as necessary to turn vehicles around, or by hunters retrieving game, but long-term effects would be minimal. Redundant routes, roads crossing sensitive or erosive areas, and roads identified as safety hazards or with conflict/legal access issues would not be closed and reclaimed; they would remain mostly unvegetated due to continued vehicle traffic. Mileage by travel route type (road, primitive road, and trail) within each of the vegetative cover types would not change, as shown in Table 4, below.

**Table 4. Alternative 1 - Existing travel route designations by vegetative land cover type.**

<b>Alternative 1 Existing Management</b>	<b>Road (mi)</b>	<b>Primitive Road (mi)</b>	<b>Trail (mi)</b>	<b>Total (mi)</b>	<b>Area (sq mi)</b>	<b>Density (mi/sq mi)</b>
<b>Forest and Woodland</b>	11.6	71.3	7.4	90.3	62.1	1.5
<b>High Montane Vegetation</b>	0	0.1	0	0.1	1	0.1
<b>Mesic Shrubland and Grassland</b>	0.69	4.5	0.8	5.99	3	2.0
<b>Semi-desert Shrubland and Grassland</b>	45.9	352.7	18.2	416.8	207	2.0
<b>Sparse Vegetation and Natural Barren Areas</b>	0	0.01	0	0.01	0.7	0.0
<b>Other*</b>	16	3.7	0	19.7	1.5	N/A
<b>Total</b>	74.19	432.31	26.4	532.9	275.3	1.9
<b>Other</b> = Agriculture, Open Water, Urban and Other Developed Lands * These miles consist of state and federal highways identified as “other developed lands” by Northwest ReGap within BLM managed lands.						

Alternative 2

Direct/Indirect Impacts: Under Alternative 2, approximately 167 fewer travel route miles would be designated, as compared to Alternative 1, Existing Management. Road density would be reduced by 32% from existing condition. Non-designated routes would be left to natural re-vegetation or would be rehabilitated with the appropriate BLM-approved seed mixture. Using an average approximate 10 ft. disturbance footprint width, approximately 200 total acres of existing roadbed would reclaim naturally or through BLM initiated rehabilitation. Both native and non-native species would colonize road surfaces, resulting in a minor beneficial effect to vegetative cover across the planning area. Plants existing outside of roads, improved roads and trails would be still be driven over as necessary to turn vehicles around, or by hunters retrieving game, but adverse effects would be negligible and short-term. Because fewer roads would be designated, there would be less opportunity for the public to utilize the 300 foot buffer tied to existing motorized travel routes, resulting in an overall minor beneficial effect to native vegetation existing within the 300 foot route buffer.

While some reduction in route designation would occur in most vegetative cover types, the largest change from existing management would occur in the Forest and Woodland (approximately 29 fewer miles) and Semi-desert Shrubland and Grassland vegetative cover types (approximately 133 fewer miles), resulting in a minor long-term beneficial effect to those cover types. There would be a negligible long-term beneficial effect to the remaining cover types because of the relatively small reduction in route designation in those cover types. Alternative 2 travel route designations and mileage by vegetative cover type are shown in Table 5, below.

**Table 5. Alternative 2 travel route designations by vegetative land cover type.**

<b>Alternative 2</b>	<b>Road (mi)</b>	<b>Primitive Road (mi)</b>	<b>Trail (mi)</b>	<b>Total (mi)</b>	<b>Area (sq mi)</b>	<b>Density (mi/sq mi)</b>
<b>Forest and Woodland</b>	5.4	48.2	8.1	61.7	62.1	1.0
<b>High Montane Vegetation</b>	0	0	0	0	1	0.0
<b>Mesic Shrubland and Grassland</b>	0.42	2.4	0.75	3.57	3	1.2
<b>Semi-desert Shrubland and Grassland</b>	38.9	211	34	283.9	207	1.4
<b>Sparse Vegetation and Natural Barren Areas</b>	0	0	0	0	0.7	0.0
<b>Other*</b>	16	0.41	0	16.41	1.5	N/A
<b>Total</b>	<b>60.72</b>	<b>262.01</b>	<b>42.85</b>	<b>365.6</b>	<b>275.3</b>	<b>1.3</b>

**Other** = Agriculture, Open Water, Urban and Other Developed Lands

\* These miles consist of state and federal highways identified as “other developed lands” by Northwest ReGap within BLM managed lands.

*Alternative 3*

*Direct/Indirect Impacts:* Under Alternative 3, approximately 139 fewer travel route miles would be designated, as compared to Alternative 1, Existing Management. Road density would be reduced by 26% from existing condition. Non-designated routes would be left to natural revegetation or would be rehabilitated with the appropriate BLM-approved seed mixture. Using an average approximate 10 ft. disturbance footprint width, approximately 165 total acres of existing roadbed would reclaim naturally or through BLM initiated rehabilitation. Both native and non-native species would colonize road surfaces, resulting in a minor beneficial effect to vegetative cover across the planning area. Plants existing outside of roads, improved roads and trails would be still be driven over as necessary to turn vehicles around, or by hunters retrieving game, but adverse effects would be negligible and short-term. Because fewer roads would be designated, there would be less opportunity for the public to utilize the 300 foot buffer tied to existing motorized travel routes, resulting in an overall minor beneficial effect to native vegetation existing within the 300 foot route buffer.

While some reduction in route designation would occur in most vegetative cover types, the largest change from existing management would occur in the Forest and Woodland (approximately 19 fewer miles) and Semi-desert Shrubland and Grassland vegetative cover types (approximately 116 fewer miles), resulting in a minor long-term beneficial effect to those cover types. There would be a negligible long-term beneficial effect to the remaining cover types because of the relatively small reduction in route designation in those cover types. Alternative 2 travel route designations and mileage by vegetative cover type are shown in Table 6, below.

**Table 6. Alternative 3 travel route designations by vegetative land cover type.**

<b>Alternative 3 Adaptive Management</b>	<b>Road (mi)</b>	<b>Primitive Road (mi)</b>	<b>Trail (mi)</b>	<b>Total (mi)</b>	<b>Area (sq mi)</b>	<b>Density (mi/sq mi)</b>
<b>Forest and Woodland</b>	6.3	55	10.5	71.8	62.1	1.2
<b>High Montane Vegetation</b>	0	0.1	0	0.1	1	0.1
<b>Mesic Shrubland and Grassland</b>	0.5	3.2	0.75	4.45	3	1.5
<b>Semi-desert Shrubland and Grassland</b>	41	226	34	301	207	1.5
<b>Sparse Vegetation and Natural Barren Areas</b>	0	0.01	0	0.01	0.7	0.0
<b>Other*</b>	16	2.4	0	18.4	1.5	N/A
<b>Total</b>	63.8	286.71	45.25	395.8	275.3	1.4
<b>Other</b> = Agriculture, Open Water, Urban and Other Developed Lands						
* These miles consist of state and federal highways identified as “other developed lands” by Northwest ReGap within BLM managed lands.						

*Alternative 4 – Minimum Access*

Direct/Indirect Impacts: Under Alternative 4, approximately 336 fewer travel route miles would be designated, as compared to Alternative 1, Existing Management. Road density would be reduced by 64% from existing condition. Non-designated routes would be left to natural revegetation or would be rehabilitated with the appropriate BLM-approved seed mixture. Using an average approximate 10 ft. disturbance footprint width, approximately 408 total acres of existing roadbed would reclaim naturally or through BLM initiated rehabilitation. Both native and non-native species would colonize road surfaces, resulting in a moderate beneficial effect to vegetative cover across the planning area. Plants existing outside of roads, improved roads and trails would be still be driven over as necessary to turn vehicles around, or by hunters retrieving game, but adverse effects would be negligible and short-term. Because fewer roads would be designated, there would be less opportunity for the public to utilize the 300 foot buffer tied to existing motorized travel routes, resulting in an overall moderate beneficial effect to native vegetation existing within the 300 foot route buffer.

While some reduction in route designation would occur in most vegetative cover types, the largest change from existing management would occur in the Forest and Woodland (approximately 58 fewer miles) and Semi-desert Shrubland and Grassland vegetative cover types (approximately 272 fewer miles), resulting in a moderate long-term beneficial effect to those cover types. There would be a negligible long-term beneficial effect to the remaining cover types because of the relatively small reduction in route designation in those cover types. Alternative 2 travel route designations and mileage by vegetative cover type are shown in Table 7, below.

**Table 7. Alternative 4 travel route designations by vegetative land cover type.**

<b>Alternative 4 Minimum Access</b>	<b>Road (mi)</b>	<b>Primitive Road (mi)</b>	<b>Trail (mi)</b>	<b>Total (mi)</b>	<b>Area (sq mi)</b>	<b>Density (mi/sq mi)</b>
<b>Forest and Woodland</b>	6.3	25.4	0.2	31.9	62.1	0.5
<b>High Montane Vegetation</b>	0	0	0	0	1	0.0
<b>Mesic Shrubland and Grassland</b>	0.43	1.6	0.07	2.1	3	0.7
<b>Semi-desert Shrubland and Grassland</b>	36.6	100	8	144.6	207	0.7
<b>Sparse Vegetation and Natural Barren Areas</b>	0	0	0	0	0.7	0.0
<b>Other*</b>	16	1.5	0	17.5	1.5	N/A
<b>Total</b>	<b>59.33</b>	<b>128.5</b>	<b>8.27</b>	<b>196.1</b>	<b>275.3</b>	<b>0.7</b>
<b>Other = Agriculture, Open Water, Urban and Other Developed Lands (includes Hwy. 93)</b>						
<b>* These miles consist of state and federal highways identified as “other developed lands” by Northwest ReGap within BLM managed lands.</b>						

**Threatened/Endangered Plants, Sensitive Plants**

*Affected Environment*

In accordance with national policy (USDI-BLM Manual 6840), the Idaho BLM State Director has a Sensitive Species List. Information on sensitive plants is presented by species and then by Idaho BLM vegetation class. A plant “common to scientific” name crosswalk is provided in Attachment 2. Although no ESA-listed plant species occur on SFO-managed lands, five sensitive plant species, some with more than one known population, have been documented within the TMP planning area. These are the Lemhi milkvetch, Salmon twin bladderpod, Idaho range lichen, blue grama, and Lemhi penstemon.

Lemhi milkvetch is a perennial found in semi-desert shrublands and grasslands with encapsulated barren areas. It can be found on dry slopes comprised of talus, in washes and on flats among alluvial debris. Southern aspects are common and the soils are usually gravelly and sandy, but clay based soils also provide suitable habitat. Associated plant species include Wyoming big sagebrush, shadscale, basin wildrye, Sandberg bluegrass, Challis milkvetch and Challis crazyweed (Moseley 1989). Within the TMP planning area, a known population exists in the McDevitt Creek drainage.

Salmon twin bladderpod is a perennial found in sparsely vegetated habitats and natural barren areas. These areas mainly consist of south-facing slopes on barren knolls, rock outcrops, and scree and talus at mid elevations interspersed within semi-desert shrublands. Soils are generally gravelly to stoney and soil surface rock cover may be up to approximately 80%. Parent material is Challis volcanics and can be andesite, latite and rhyolite flow material. Commonly associated plant species include bluebunch wheatgrass, cheatgrass, Douglas’ dustymaiden, cordilleran/ silverleaf phacelia, and tufted evening primrose. Roadside habitat, where deeper

soils and water collect below talus slopes, creates Salmon twin bladderpod and Basin big sagebrush associations (Craig 1992; Craig and Craig 1996). Within the TMP planning area, a known population exists in the Williams Creek drainage.

Blue grama is a perennial grass found in semi-desert shrublands and grasslands. In Idaho, blue grama is found in a variety of locations, from valley floors, alluvial formations, toeslopes, steeper slopes up to approximately 35%, and plateaus. It can inhabit many soil types and can be found on sandy clay loam soils and other varying degree of loamy soils. It is perennial and forms mats by tillering culms, and is typically associated with open grasslands and sagebrush steppe. Commonly associated species are Sandberg bluegrass, western wheatgrass, and needle and thread grass (Nicholson and Bonham 1977; Sapsis 1990). Within the TMP planning area, known populations exist in the Baldy Creek drainage, in the Carmen Creek drainage, and in Kriley Gulch drainage.

Idaho range lichen is a nonvascular plant found in sparsely vegetated and natural barren areas. This lichen is found on bare slopes with soils such as lacustrine ash (bentonite clay deposits) and lake sediment soils. The specific local habitat is described as open areas in bentonite “badlands” within sparse sagebrush steppe near Salmon. Associated plant species included sagebrush, shadscale, greasewood, MacBride cleomella, *Xanthoparmelia* range lichen, and Wyoming range lichen (Hale 1989; Elzinga 2002). Within the TMP planning area, known populations exist within the Kirtly Creek drainage, in the Hotsprings drainage, and the Mulkey Creek drainage.

Lemhi penstemon is a short lived perennial found on early seral habitats in open forest/woodlands, mesic shrublands and grasslands, or semi-desert shrublands and grasslands. Lemhi penstemon may also be found in graminoid patches under sparse forests of ponderosa pine or Douglas-fir. Soils are usually shallow and can be clay to sandy loams with coarse rocky components. Associated species may include bluebunch wheatgrass, arrowleaf balsamroot, and cheatgrass in disturbed areas (Elzinga 1997). Within the TMP planning area, known populations exist in the South Gulch drainage, three sites exist in the Carmen Creek drainage, one site in the Geertson Creek drainage, one site in the Wimpey Creek drainage, and two sites in the McDevitt Creek drainage.

Three sensitive plants occur offsite but adjacent to the TMP planning area. Two are upland plants known as Challis milkvetch and white eatonella. The third is the stream orchid/giant helleborine. Although the above species have not been located within the project area, suitable habitat exists within the TMP planning area.

Effects Common to All Alternatives:

Effects to sensitive plant species that are common to all alternatives are similar to those described in the vegetation “effects common to all alternatives” section above (page 40). Designated route use could directly damage sensitive plants that have established along the road prism or within the designated 300 foot buffer. Authorized route use could promote the spread of invasive species by spreading weed seed and disturbing soil in sensitive plant habitats.

Alternative 1 – Existing Management

Direct/Indirect Impacts: Under Alternative 1, approximately 533 miles routes such as roads, primitive roads, and trails would continue to exist within the planning area. Impacts to the planning area sensitive plant species would not change from current management. Users would continue to utilize existing roads, primitive roads and trails, although use would increase minimally over time as population increases. Sensitive plants would continue to exist along roadsides, in the middle of many primitive roadways, and along trails. Plants persisting in tire tracks would continue to be driven over and would be damaged by tires and pressure exerted by vehicle weight and traction. Some low-growing herbaceous sensitive plant species may persist over time, while more delicate woody species would remain suppressed or excluded from roadbeds due to repeated vehicle-related damage. Plants existing outside of roads, improved roads and trails would be driven over as necessary to turn vehicles around, or by hunters retrieving game, but long-term effects would be minimal. Redundant routes, roads crossing sensitive or erosive areas, and roads identified as safety hazards or with conflict/legal access issues would not be closed and reclaimed; they would remain mostly unvegetated due to continued vehicle traffic. Mileage by travel route type (road, primitive road, and trail) within each of the vegetative cover types would not change. Under Alternative 1, there would be five Lemhi penstemon sites, two blue grama sites, and one Idaho range lichen site falling within the 300 foot buffer distance from designated routes as listed under the 2001 amendment to the Lemhi RMP (Table 8). Potential for adverse effect to these sensitive plant populations would be negligible.

**Table 8. Known Sensitive Plant Species Populations within 300 Feet of a Designated Route by Alternative.**

Species	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Lemhi milkvetch	0	0	0	0
Salmon twin bladderpod	0	0	0	0
Idaho range lichen	1	0	0	0
Blue grama	2	2	2	1
Lemhi penstemon	5	4	4	3

Alternative 2

Direct/Indirect Impacts: Under Alternative 2, there would be an estimated 366 miles of roads, primitive roads, and trails passing through these habitats. However, under Alternative 2, the available network of designated roads and trails would be reduced by 167 miles over Alternative 1. This decrease in authorized roads, primitive roads, and trails would decrease the impact to sensitive plant populations and habitats. This route reduction would have a beneficial effect to sensitive plant species. The change in designation of some routes would allow some vegetation to return to the road prism and potentially create suitable habitat for sensitive plants locally destroyed or damaged by the existing roads under Alternative 1. Under this Alternative, there would be four Lemhi penstemon sites, two blue grama sites that fall within the 300 foot buffer distance from designated routes as listed under the 2001 amendment to the Lemhi RMP (Table

8). These sensitive plant populations could potentially be adversely effected by their proximity to the routes under this Alternative.

Impacts of the new road construction and maintenance that would occur under this Alternative would be short term in duration and would be estimated to impact a total of 0.7 miles of road at four localized sites. Reroutes #1 and #2 would each impact linear swathes of land 0.1 miles each. Reroute/opening Route #3 would be expected to impact 0.2 miles of road and Reroute/opening Route #4 would be expected to impact .3 miles of road. Standard engineering and construction techniques would be applied to the four reroutes and new route sites. Under Alternative 2, the ATV trail reroute would have an estimated road width impact of 7 feet and the other three construction road footprints would have an estimated road width impact of 12 feet. Disturbance footprints are estimated to exceed the road prism itself for the duration of the rerouting and route creation process. During the time of construction and road maintenance sensitive plants adjacent to or in the roads would be impacted by burial, crushing, or desiccation via root exposure. No sensitive plants have record of occurring with the road prism or within the 300 feet buffer at the four designated construction sites. Therefore, the localized construction proposals would have a negligible impact to sensitive plants and their habitats.

### Alternative 3

#### Direct/Indirect Impacts:

Under Alternative 3, there would be an estimated 394 miles of roads, primitive roads, and trails passing through these habitat types. Under Alternative 3, the available network of designated roads and trails would be reduced by 139 miles compared to Alternative 1. This route reduction would have a beneficial effect to sensitive plant species. Although Alternative 3 does offer a decrease in designated roads related to Alternative 1, it has a 28 mile increase in designated roads compared to Alternative 2. The change in designation of some routes would allow some vegetation to return to the road prism and potentially create suitable habitat for sensitive plants locally killed or damaged by the existing roads under Alternative 1. This decrease in authorized roads would decrease the impact to native vegetation and sensitive plant habitats. Under Alternative 3, there would be four Lemhi penstemon sites, and two blue grama sites that fall within the 300 foot buffer as listed under the Lemhi RMP Amendment 2001 (Table 8). These sensitive plant populations could potentially be adversely effected by their proximity to the routes under this Alternative. Impacts from new route maintenance and construction would be identical to those stated in Alternative 2.

### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Under Alternative 4, there would be an estimated 197 miles of roads, primitive roads, and trails passing through these habitat types. Under Alternative 4, the available network of designated roads and trails would be reduced by 336 miles compared to Alternative 1. This route reduction would have a beneficial effect to Special Status plant species and their habitats.

Alternative 4 proposes to allow minimal access, and to reduce permitted and authorized roads within the project area. This Alternative has the lowest miles of route of any of the Alternatives. The change in designation of some routes would allow some vegetation to return to the road

prism and potentially create suitable habitat for sensitive plants locally destroyed or damaged by the existing roads under Alternative 1. Because sensitive plant habitat would remain the same or improve under Alternative 4, it would have a neutral effect or indirectly promote habitats of sensitive plants. The reduction of authorized roads would improve sensitive plant habitat within the road prism by decreasing soil erosion, soil compaction, and invasive plant immigration promoted by disturbance of the soil surface from designated routes. This would lead to fewer direct and indirect impacts to sensitive plants and their habitats. Four separate sites for sensitive plants would benefit from this plan by increasing their distance to OHV roads to over 300 feet. Populations of Lemhi penstemon, Idaho range lichen, and blue grama, would benefit from designation change to roads under this Alternative. However, under Alternative 4, there would continue to be three Lemhi penstemon sites and one blue grama site that fall within the 300 foot buffer as listed under the Lemhi RMP Amendment 2001 (Table 8). These sensitive plant populations could potentially be adversely effected by their proximity to the routes under this Alternative. Impacts from new route maintenance and construction would be identical to those stated in Alternative 2.

## **Water Quality**

### *Affected Environment*

Water quality concerns are associated with stream channels in the TMP area including portions of the Salmon and Lemhi Rivers and tributary streams. In general, sediment and temperature are in slight excess amounts in a few places and within a limited time window each year. Details about stream segments and DEQ water quality rating and pollutants can be found in the 2008 Integrated Report (DEQ 2008). All pollutants are from non-point sources, that is, no one single location or activity can be identified as the source. Sources of these pollutants found within the watersheds may include surface mining, mine tailings, streambank modification/ destabilization, timber harvesting, irrigated crop production, rangeland (livestock grazing), flow regulation/ modification, highway/road/bridge construction and pastureland treatment. Generally, sedimentation from non-point sources such as irrigated crop production, rangeland, pastureland, streambank modification and roads is the primary pollutant of concern, although nutrients from pastureland and cropland can also be of concern.

Water temperatures on the stream channels on public land generally meet State of Idaho standards for cold water biota and spawning salmonids and generally meet the PACFISH/INFISH (USFS/BLM 1995a, USFS/BLM 1995b) standards for the migration, rearing, and spawning of salmonids.

The existing road system on public land in the TMP area totals about 533 miles. This road system has the potential to contribute limited sediment into the waterways in the TMP area, mostly from spring runoff and isolated summer thunderstorm events. Field reviews and water quality data gathered by DEQ shows most of the water quality limited stream segments to be downstream of public lands on private land. Sediment from the public land road system has been identified to contribute to reduced water quality in Geertson, Bohannon and McDevitt Creeks in the TMP area. BLM has worked diligently to improve road conditions and reduce sediment input into these streams since the late 1990's.

### Effects Common to All Alternatives

There is potential for OHV activities to affect water quality in the semi-arid environment of the TMP area. Soil properties and vegetation cover may be altered by OHV use. In turn, surface patterns of precipitation runoff (amount, velocity) may be altered, resulting in accelerated rates of erosion and sedimentation and elevated levels of turbidity in affected watersheds. (Ouren *et al.* 2007). Where slope is a factor, the extensive networks of OHV routes proliferating across landscapes can serve as conduits that direct or alter the direction of surface flows. These conduits may be eroded to form gullies that channel dislodged sediments and contaminants into aquatic ecosystems.

Dispersed chemicals from OHV use may be transported into aquatic systems. The operation of OHV engines, especially 2-stroke engines, can impact water quality through spills and emissions. These contaminants may enter aquatic systems via direct flushing, or they may be adsorbed to sediments and/or absorbed by plant materials, both of which are easily transported to aquatic systems by precipitation runoff or wind (Ouren *et al.* 2007).

Altering soil texture, disrupting soil crusts or desert pavement, and reducing vegetation cover from road systems can increase the soil's susceptibility to erosion. In turn, rates of sedimentation and turbidity levels can increase and alter the water quality of a given watershed (Forman 2003).

Where OHV activity occurs, wheel cuts and tracks within these networks may serve as water conduits that channel and direct water flow containing sediments and contaminants into aquatic ecosystems (Wemple 1996; Forman 2003). The generally impervious nature of soils compacted by OHV traffic can enhance gully formation in these conduits, thus promoting additional flows of sediments and suspended solids into aquatic systems, potentially extending the drainage network. The presence of OHV-route networks is an important factor in determining the severity of potential sedimentation in nearby aquatic systems. In particular, Wemple (1996) found that the drainage ditches along logging roads and the gullies that form below culvert outlets (where drainage flows pass under a road or cross-drain) on steep slopes served as primary conduits linking surface flows to streams.

Furniss and others (2000) describe similar effects of road and/or trail networks across a landscape. In particular, they discuss the continuous "hydrological connections" that facilitate sediment transport between surface flows and waterways. Furniss and others (2000) go on to list ways in which water and associated sediments enter stream systems from roads, including: 1) ditches perpendicular to the road footprint that bisect the road delivering runoff to a stream at a road-stream crossing, referred to as inboard ditches; 2) inboard ditches delivering water to a cross-drain (culvert, dip, waterbar); 3) where sufficient discharge is available to create a gully or sediment plume that extends to the stream channel; 4) roads sufficiently close to streams so that the fillslope (road fill between the outside edge of the road and the base of the fill where it meets the natural ground surface) encroaches on the stream; and 5) landslide scars on the road fill. These connections provide direct routes for accelerated runoff transporting sediments and road-associated contaminants to natural drainage channels.

The Existing Management has a number of roads that have some impact to water quality. Through detailed investigations by Idaho DEQ, very few road systems were found to have a measurable

negative impact to water quality in the TMP area. These include McDevitt, Geertson, Bohannon, Wimpey and Kirtley Creeks. Of these, only BLM roads in the McDevitt and Geertson Creek watersheds were linked to measurable negative impacts to water quality.

Existing travel limitations and exceptions identified under the 2001 amendment to the Lemhi RMP would remain in effect under all alternatives. This includes seasonal closures, the ability of the public to travel up to 300 feet from designated routes for direct access to campsites, retrieve downed big game, or harvest forest products, and snowmobile use. As motorized vehicles leave designated routes wildlife could be displaced, and habitat could be impacted by the crushing of vegetation. These impacts would vary based on the miles of designated routes in the alternatives.

#### Alternative 1- Existing Management

Direct/Indirect Impacts: Impacts to water quality from travel routes are very similar to impacts for the Fisheries section above including potential erosion and subsequent sedimentation into stream channels. Travel routes in the TMP area have the potential to increase stream sediment inputs above background levels from erosion, and chemicals from vehicle travel to live water and stream habitat. This could increase stream water turbidity and increase potentially toxic chemicals in the water, which could reduce stream habitat and negatively affect agricultural and recreational water users downstream on public and private lands.

Most of the streams in the TMP area are meeting state water quality standards and do not have measurable impacts to water quality from the BLM road system. Geertson, Bohannon, and Wimpey Creeks in the Lemhi River watershed are listed as having water quality impairments related to sediment and temperature, but mostly from private land erosion and habitat conditions (DEQ 2008). Most public route segments are upland and do not contribute sediment to stream channels and have no measurable impacts to water quality.

#### Alternative 2

Direct/Indirect Impacts: Impacts from Alternative 2 consist of erosion from road segments producing sediment to stream channels in the TMP area. The impacts of this alternative would be similar to the existing conditions but with a slight reduction in length of road and subsequent measurable negative impacts from sediment and potential contaminants generated from the road system. Under Alternative 2, there would be 167 fewer miles of road as compared to the Existing Management, which would slightly reduce impacts to water quality. This would be expected to have a slight reduction in the amount of erosion generated from road impacts that could reach waterways and the associated water quality.

#### Alternative 3

Direct/Indirect Impacts: Impacts under this Alternative would be most similar to Alternative 2, especially along stream habitat, with 28 additional miles of roads as compared to Alternative 2. This would slightly increase potential negative impacts to sediment and substrate conditions, riparian vegetation, and contaminants over Alternative 2.

Alternative 3 would be expected to have a slight reduction in the amount of erosion generated from road impacts that could reach stream habitat and measurable as compared to the Existing Management.

#### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Impacts to water quality from Alternative 4 would be significantly less (336 miles) from the existing management and alternatives. It would substantially decrease the roads and thus would potentially reduce the amount of erosion and associated sedimentation to the stream channels. The general nature of the impacts would be similar to Alternative 2 except erosion from the road system would be less with fewer roads in the TMP. Fewer roads/ways would over time be expected to have less erosion and decrease the sediment impacts to streams and reduce associated water quality impacts.

Overall, most of the road system on public land in the TMP area is upland and does not impact wetland/riparian habitat. It would allow for approximately 26.2 miles of road within fish-bearing stream/riparian habitat and an additional approximate 13.6 miles of road influencing the remainder of the riparian areas. These roads most likely have some limited impacts including limiting the size and extent of some riparian communities.

### **Wetlands/Riparian Zones**

#### Affected Environment

Wetland/riparian vegetation is composed of plants strongly influenced by the presence of water along creeks, rivers, lakes, ponds, seeps, springs, wet meadows, and bogs. Healthy riparian vegetation is critical to a healthy watershed, as well as to fish in the stream and wildlife. Riparian vegetation functions to stabilize streambanks and prevent erosion, slow down floodwaters, trap sediment, and acts as a sponge to store runoff for later release into the stream. It provides shade and habitat for fish, and food for stream organisms. Most species of wildlife depend on riparian areas for all or part of their needs: food, cover, drinking water, or reproduction. The beaver, which has been eradicated from much of its historically occupied habitat within the subbasin, was very important in stabilizing these systems, providing for flood abatement, water storage and trapping sediment as well as providing habitat for various fish and wildlife species.

In the planning area, there are two general types of riparian vegetation: woody (shrubs and trees) and herbaceous (grasses, sedges, rushes, and forbs). The dominant trees are quaking aspen and black cottonwood. The dominant shrubs are geyer, bebb, booth, and coyote willows, water birch, mountain alder, red-osier dogwood, woods rose, chokecherry, gooseberry and currant. The dominant herbaceous species ("slough grasses") are Nebraska sedge, beaked sedge, and Baltic rush. Degraded riparian areas are dominated by Kentucky bluegrass, clover, and dandelion.

The stream and wetland/riparian habitats in the SFO are rated through the Proper Functioning Condition (PFC) assessments. A stream in Proper Functioning Condition is one where adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with

high flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve floodwater retention and groundwater recharge (USDI - BLM, 1993). Numerous upland springs occur in the area in various conditions. A relatively small percentage of these are within 100 feet of an existing route.

**Table 9: Proper Functioning Condition Ratings within the TMP area**

	PFC (miles)	FAR (miles)	NF (miles)	Total (miles)
<b>Salmon River</b>	57.8	24.6	0.3	82.7
<b>Lemhi River in TMP Area</b>	41.4	27.2	1.2	69.8
<b>TOTAL</b>	99.2	51.8	1.5	152.5

PFC = Proper Functioning Condition

FAR = Functioning at-Risk Condition

NF = Non-Functioning Condition

Effects Common to All Alternatives

Much of the road system on public land in the TMP area is upland and does not impact wetland/riparian habitat. Each of the travel management alternatives allow for a certain length of road within riparian areas and does have some impacts including limiting the size and extent of some riparian communities. Where roads follow the riparian habitat mostly associated with stream channels, the existing riparian habitat has been slightly reduced. This has slightly reduced the filtering capabilities of water runoff and caused a slight increase in erosion from roads in the TMP area. These impacts have not been shown to have a measurable affect to water quality in the stream habitat (see Water Quality section above).

Existing travel limitations and exceptions identified under the 2001 amendment to the Lemhi RMP would remain in effect under all alternatives. This includes seasonal closures, the ability of the public to travel up to 300 feet from designated routes for direct access to campsites, retrieve downed big game, or harvest forest products, and snowmobile use. As motorized vehicles leave designated routes wildlife could be displaced, and habitat could be impacted by the crushing of vegetation. These impacts would vary based on the miles of designated routes in the alternatives.

Alternative 1 – Existing Management

Direct/Indirect Impacts: Much of the road system on public land in the TMP area is upland and does not impact wetland/riparian habitat. The existing travel management allows for approximately 33 miles of road within 300 feet of fish-bearing stream/riparian habitat. An additional 20 miles of road influences non-fish bearing riparian areas. These roads most likely have some impacts including limiting the size and extent of some riparian communities.

Where roads follow the riparian habitat mostly associated with stream channels, the existing riparian habitat has been slightly reduced. This has slightly reduced the filtering capabilities of water runoff and caused a slight increase in erosion from roads in the TMP area. These impacts

have not been shown to have a measurable affect to water quality in the stream habitat (see Water Quality section above).

### Alternative 2

Direct/Indirect Impacts: Impacts from Alternative 2 are similar in nature as described in Alternative 1 above and consist of a reduction in the size and extent on wetland/riparian habitat from the road segments continued use in the TMP area. Alternative 2 reduces routes influencing riparian habitat by 6.4 miles compared to existing management. The existing travel management allows for approximately 33 miles of road within fish-bearing stream/riparian habitat and an additional approximate 19.7 miles of road influencing the remainder of the riparian areas.

### Alternative 3

Direct/Indirect Impacts: Impacts to wetland/riparian habitat from Alternative 3 would be very similar to those identified under Alternative 2 and to the existing conditions. This would be expected to have a slight reduction in the amount of riparian habitat reduced/negatively impacted from roads. Under Alternative 3, an additional approximately 3 miles of routes that influence riparian habitat would be designated compared to Alternative 2.

### Alternative 4 – Minimum Access

Direct/Indirect Impacts: Impacts to riparian areas from alternative 4 would be less (336 miles) from the existing management and Alternatives 2 and 3 described above. It would allow for approximately 26.2 miles of road within fish-bearing stream/riparian habitat and an additional approximate 13.6 miles of road influencing the remainder of the riparian areas for a total of 13.2 fewer miles. These roads most likely have some limited impacts including limiting the size and extent of some riparian communities and thus would potentially reduce the amount of erosion and associated sedimentation to the stream channels compared to the Existing Management. Impacts to wetland/riparian areas from alternative 4 would be similar to alternative 2 except that few roads would be in the TMP, thus slightly reducing the roads with impacts to riparian habitat. If the number of roads currently along stream/riparian habitat were to decrease, the size and extent of riparian areas affected would increase over time.

## **Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds**

### Affected Environment

The planning area includes habitat for a variety of wildlife species. Habitat in the area supports mammals, birds, amphibians and reptiles. Some of these species are listed under the ESA, listed on the Idaho State Director's list of sensitive species (May 20, 2003), protected by the Migratory Bird Treaty Act, and/or protected by other executive orders, policy or legislation.

Mammals in the area include the Canada lynx, listed as threatened under the ESA, and gray wolf, pygmy rabbit, Townsend's big eared bat, fisher, and wolverine which are listed as sensitive species by the Idaho State Director of the BLM. Many other species, including big game, are also present in the planning area.

There are four Canada lynx Analysis Units (LAUs) comprising a total of approximately 8,000 acres of habitat on BLM managed land in the planning area. All of the LAUs on BLM administered lands cross onto adjacent National Forest lands to incorporate enough habitat to meet the requirements of an LAU. Based on the Canada Lynx Conservation Assessment and Strategy (LCAS) (Ruediger et al. 2000), BLM administered lands within the planning area do not provide primary lynx habitat since the forest vegetation is considered a “dry site,” which lacks adequate components for species reproduction and foraging. The Salmon Field Office has seven reports of lynx occurring on BLM managed lands; they are in the Geertson (1970’s) and McDevitt (1990’s) Creek drainages. Sightings in the area were first recorded in 1916 and last recorded in 1999 when biologists working on contract for BLM found tracks in the Lemhi Mountains. Currently there are approximately 49 miles of roads within the four LAUs and approximately 22 miles within the mapped lynx habitat within those LAUs. The mapped habitat is all secondary habitat since it is mostly dry Douglas fir and lodgepole pine that is not in a mosaic pattern with sub-alpine fir.

Wolves can be found throughout the planning area from the city of Salmon to high elevation conifer habitat. The wolves in the area continue to grow in population. The BLM has no record of rendezvous or den sites on BLM managed land in the planning area. Surveys for pygmy rabbits have been completed in various portions of the planning area. No pygmy rabbits have been found in the planning area, though there are populations just to the south. The BLM does not have any reports of Townsend’s big eared bats on BLM managed lands in the area. There are records on the adjacent USFS managed lands which suggest the species does use BLM managed habitat in the area also. The BLM does not have any reports of fisher on BLM managed lands in the project area. There are reports on USFS managed lands along the Continental Divide, and some of the BLM conifer habitat in this area may also be used. The BLM has a few reports of wolverine on BLM managed lands, though most sightings are at the higher elevation managed by the USFS.

Big game occurring in the area includes Rocky Mountain bighorn sheep, deer (mule and white-tailed), moose, mountain goat, elk and pronghorn antelope. Rocky Mountain bighorn sheep and mountain goats are associated with high mountains and steep canyons. Pronghorn antelope occupy semi-desert shrubland and grassland habitats. Moose and white-tailed deer tend to be found along riparian areas, though they will cross semi-desert shrublands at times.

Mule deer occupy all habitat types from semi-desert shrubland and grassland to high montane vegetation. They reach their greatest densities in semi-desert shrublands on rough, broken terrain and mesic shrublands that provide abundant browse and cover. Fall and winter diets consist of browse from a variety of trees and shrubs. Deer are migratory, where they summer at higher elevations and move down slope as fall approaches. Deer move to lower elevations and forage on more protected south-facing exposures during midwinter. There are approximately 221 miles of roads in deer winter range in the planning area, fifty one of those miles are within winter habitat considered crucial for deer. Of those 221 miles, forty one miles have seasonal restrictions on them to help protect wintering animals; twelve of those miles are within crucial deer winter range.

Rocky mountain elk can be found in most habitat types and elevations at least on a seasonal basis. Elk are considered generalist feeders utilizing shrubs, grasses, and forbs. Calving grounds are carefully selected by the cows and are generally in locations where cover, forage, and water are found together. Elk tend to inhabit higher elevations during spring and summer and migrate to lower elevations for winter range. Elk form large mixed herds on favored winter range. There is approximately 95,000 acres of elk winter range within the planning area, of which approximately 38,000 of the acres are considered crucial. Within the winter range there are currently approximately 276 miles of transportation routes, approximately 96 of the miles within crucial winter range. Twenty seven of the miles are seasonally restricted to help protect wintering animals, twenty five of those miles within crucial winter range.

Small mammals and carnivores are found in every habitat type. Small mammals are a main prey base for the smaller carnivores and both species groups may serve as prey for raptors and larger carnivore species. Small mammals often reproduce in underground burrows or in tree cavities or roots and generally forage on insects, lichens, and plant matter. Examples of local small mammals include several species of voles, shrews, mice, squirrels, rabbits, hare, and cottontail. Examples of small carnivores include skunks, fox, bobcat, coyote, and badger.

Federal agencies are required to consider the effect of projects on migratory birds with emphasis on species of concern. Species of concern are described by the USFWS in Birds of Conservation Concern (2008). Land administered by the BLM Salmon Field Office occurs within either the Great Basin or Northern Rockies Bird Conservation Regions (BCR). A review of the conservation list indicates 33 species in the two BCRs. Seventeen of these species occur in both BCRs, the other 16 species occur in one or the other. Eleven of the species do not occur in the Salmon Field Office area (Sibley 2000 and IDFG n.d.), though they are present in the larger BCRs, leaving 22 species of Conservation Concern. One of these, the yellow-billed cuckoo is also listed as a Candidate Species on the ESA. Thirteen of the species are also listed as Sensitive Species by the Idaho State Director for the BLM as occurring in the Salmon Field Office area, they are: bald eagle, greater sage-grouse, peregrine falcon, ferruginous hawk, flammulated owl, calliope hummingbird, Lewis's woodpecker, Williamson's sapsucker, willow flycatcher, olive-sided flycatcher, loggerhead shrike, sage sparrow, and Brewer's sparrow. The other eight species of conservation concern are: eared grebe, golden eagle, long-billed curlew, sage thrasher, green-tailed towhee, black rosy-finch, Swainson's hawk, and Cassin's finch. In addition three species are listed by the State Director as Sensitive and are not on the USFWS list, they are: prairie falcon, northern goshawk, and Hammond's flycatcher.

Suitable habitat for the yellow-billed cuckoo is considered to be a "large block" (a minimum of 25 acres to upwards of 99 acres) of cottonwood canopy and a thick willow understory (Federal Register, 2001). This type of habitat is not present in the Salmon Field Office area. The only acknowledged sightings of yellow-billed cuckoo in the Salmon Field Office area were reported at a backyard feeder just north of the city of Salmon. The bird was likely a migrant, vagrant, or transient birds since the sighting-habitat lacked the "preferred" vegetative composition.

Bald eagle activities are concentrated along the Salmon River and to a lesser extent, the Lemhi River between late fall and early spring, but principally during the winter. These bald eagles

generally utilize cottonwoods and cliffs immediately along the rivers although conifers may provide perch or roosting sites with additional thermal protection. The birds principally forage on fish and waterfowl but also feed on animals that are winter-killed or vehicle mortalities. Each year, a mid-winter bald eagle census is conducted within the Salmon area along the main rivers. In 1997, there were less than 20 bald eagles recorded on during the count; in 2009, the number was over 140. In addition to wintering bald eagles the number of nesting bald eagles has increased. In the last 20 years the number of nests in the Upper Salmon River Basin has increased from zero to 18 (IDFG, 2010). There is one bald eagle nest on land managed by the Salmon Field Office.

Approximately 70,000 acres of BLM managed lands in the planning area are currently identified as “key” greater sage-grouse habitat, within those acres approximately 30,000 are mapped as nesting habitat, 20,000 as winter habitat, and 10,000 as summer habitat with overlap between the seasonal habitats. The Challis Sage-Grouse Local Working Group has included about 40,000 acres of BLM managed lands within the planning area as part of three separate sage-grouse priority areas: Discovery Hill (20,000 acres), Mid-Lemhi (18,000 acres), and Morgan/Hat Creek/Fuller Gulch (1000 acres). These areas are the highest priority for protection and restoration (CSGLWG, 2007). There are six occupied leks mapped in the planning area, including one lek route used to help index the statewide population. The lek route had a high of 43 males in the spring of 2007, and there were 34 males counted in 2008. Under current management there are 308 miles of routes within areas mapped as sage-grouse habitat. The seasonal use areas for sage-grouse were mapped by the Challis Sage-Grouse Local Working Group in 2009; currently by seasonal habitat there are 47 miles of routes within summer habitat, 88 miles within winter habitat and 144 miles within spring or nesting habitat. When considering the three priority areas there are 168 miles of routes within the boundaries of those areas.

The project area provides habitat for a variety of migratory birds including songbirds, water birds, shorebirds, and birds of prey. Most migratory bird use is limited to the summer period due to the cool climate, low precipitation, and harsh fall, spring, and winter months in the Salmon area. Birds arrive during late spring (April/May) and migrate from the area in early fall (August/September). The species present during summer are most likely breeding and rearing young. They leave as the weather changes in late summer. A few species are present during the wintertime. These species spend all or part of the winter in the Salmon area and include the greater sage-grouse, bald eagle, and golden eagle.

At least 15 raptor species have been documented as occurring regularly in the planning area. Of the 15, six species are considered sensitive by the BLM in Idaho: bald eagle, peregrine falcon, prairie falcon, northern goshawk, ferruginous hawk, and flammulated owl. Several known active and inactive raptor nests and eyries occur in the area. The cliff/rock/talus habitat type occurs extensively and is particularly important to golden eagles and peregrine falcons. Wetland areas often provide important peregrine falcon foraging habitat. They will also forage over adjacent coniferous and riparian forests. Prairie falcons commonly utilize smaller cliff and rock habitats. Red-tailed hawks are the most common broad-winged hawk and are found at all elevations and within most habitat types. Forest hawks such as Cooper’s hawks, northern goshawks, and sharp-shinned hawks occur in moderate numbers but, with the exception of northern goshawks, have

not been the focus of extensive surveys. Many raptor species such as northern harriers and bald eagles are often found near wetland areas and water sources where there is adequate perching and foraging habitat.

Habitat types for songbirds vary from semi-desert shrublands at lower elevations to steep canyons and mountains at higher elevations. This elevation gradient difference provides a variety of habitat types for resident and migratory songbirds, many of which are neotropical migrants generally present from around March through November. Local songbird species may be ground nesters, shrub nesters, tree foliage nesters, or primary or secondary cavity nesters. Most nesting activities begin in late March or early April and end by late June.

There is one amphibian and one reptile on the Idaho BLM State Director's Sensitive Species list for the Salmon area, they are: western toad and common garter snake. Amphibians are most commonly found near water sources. Reptiles may frequent habitats near water but are most commonly found in semi-desert shrublands. Some local species tend to have a very broad distribution and occur in a wide variety of habitats at low to moderate elevations; examples include short-horned lizard, gopher snake, and western rattlesnake. Amphibians are often tied to seasonal precipitation, playas, temporary pools and wetlands, creeks, rivers, or puddles for breeding and foraging. Some species can inhabit extremely dry habitat types at least on a seasonal basis. Amphibians and reptiles generally forage for insects and small mammals but may take other herptofauna.

Forest and woodlands support high densities of several important small mammal species such as voles, red squirrels, and snowshoe hare. Carnivores such as gray wolf, fisher, wolverine, and Canada lynx utilize forest and woodlands as their preferred habitat type for foraging and breeding. Forest and woodlands serve as primary summer range for big game species such as elk and mule deer, and may support elk calving areas when meadow habitats are intermixed. Forest and woodlands are utilized by only a few bat species. The avian community has a comparatively large number of seed-eating birds, which is a reflection of the abundant cone-seed crops. Bird species that commonly occupy forest and woodlands include northern goshawk, flammulated owl, Calliope hummingbird, Lewis's woodpecker, Williamson's woodpecker, olive-sided flycatcher, Hammond's flycatcher and Cassin's finch. Forest and woodlands support very few reptile or amphibian species.

Although mesic shrubland and grassland represents a small portion of the landscape, they are extremely important for all species of wildlife. Riparian habitat provides important habitat for numerous species of small mammals, native ungulates, and large carnivores, all of which may utilize riparian zones disproportionately more than upland habitat types. All local bat species concentrate around riparian habitats for foraging and drinking purposes, with slow-water pools and open wetlands being especially important. This vegetation supports more species of birds during the calendar year than any other habitat type, and includes species such as Lewis's woodpecker, bald eagle, willow flycatcher, and eared grebe. All wetlands and riparian habitats support a high number of amphibian and reptiles, including the common garter snake and western toad.

Semi-desert shrubland and grasslands are extremely important habitats for wildlife species. Bighorn sheep only frequent semi-desert shrubland and grasslands when they are in close proximity to cliff/rock habitat. Semi-desert shrubland and grasslands are seasonally important to native ungulates as calving/fawning areas, and species such as elk may establish traditional calving areas where the vegetation is tall and in close proximity to water. Semi-desert shrubland and grasslands are not frequented by most large carnivores, although species such as coyotes, gray wolf and perhaps mountain lion may utilize them when food resources are present. Numerous small mammal species such as voles and shrews utilize this habitat type, as do several fossorial mammals such as marmots, badgers, and pocket gophers, which are frequently found along grassland/rock edges. Several bat species may forage over semi-desert shrubland and grasslands but do not reproduce or roost unless trees, cliffs, or other structures are present. The diversity and density of bird species in semi-desert shrubland and grasslands vary depending upon elevation and vegetation. Many raptor species, such as prairie falcon, ferruginous hawk, golden eagle, and Swainson's hawk frequently hunt in semi-desert shrublands and grasslands due to the high density of small mammal species. Many of the birds that occur in this habitat type are sagebrush obligate species that exhibit sensitivity to habitat edges and fragmentation. Many of these species nest on or near the ground beneath the shrubs. These species include greater sage-grouse, loggerhead shrike, green-tailed towhee, sage sparrow, and Brewer's sparrow. Sagebrush habitats can support a high diversity of reptile species, particularly when inter-mixed with semi-desert shrubland and grassland, and sparse vegetation and natural barren areas. Amphibians are generally absent except where water sources are present.

High montane vegetation supports the lowest diversity of small mammal species in the area. Elk and mule deer may utilize alpine/subalpine habitat during the summer months. Elk most likely utilize these habitats more than mule deer and do so infrequently. Carnivores such as gray wolf, Canada lynx, fisher, and wolverine can occur in high montane vegetation. Bat species are not known to utilize high montane vegetation. High montane vegetation supports very few bird, reptile or amphibian species because of the severe climate.

Many small mammal species utilize sparse vegetation and natural barren areas in association with neighboring vegetation types. This habitat is not particularly important to big game species except bighorn sheep, which depend upon cliff habitat for lambing areas and escape cover. Most large carnivores are not closely associated with this habitat. This habitat is very important to several local bat species and is often utilized for day and night roosts by species. Cliff habitat may support caves or abandoned mines that provide habitat for maternity roosts or hibernacula for species such as Townsend's big-eared bat. Local bird species that utilize sparse vegetation and natural barren areas include peregrine falcon and golden eagle. Sparse vegetation and natural barren areas can support a fairly high diversity of reptile species, including the common garter snake, particularly when inter-mixed with semi-desert shrubland and grassland types. Amphibians are generally absent from rocky habitat except where water pools are present.

#### *Affects Common to All Alternatives*

The existence of travel routes, and their use, impact wildlife and their habitat throughout the world, these impacts are common to all Alternatives, though they differ in the degree of impact.

Travel routes and motorized vehicles have variable impacts on wildlife species. They are often species-specific and co-dependent on factors such as traffic volume, season and timing of use, the amount of vegetative (i.e., security) cover along travel routes, and the frequency of human-wildlife interactions. Typically, impacts associated with low traffic volume are not as significant to most wildlife species as those associated with high-traffic volume. Motorized recreation, such as OHV use, can have numerous impacts on wildlife species because there are direct effects on vegetation and other habitat components and disturbances to individual animals.

Overall, the most common response by wildlife to motor vehicles involves displacement and avoidance of otherwise suitable habitats (Gaines et al. 2002). Human disturbances to specific nesting, breeding, or wintering sites are commonly reported; responses are often species-specific (but can be variable between populations of the same species), vary depending upon the type, distance, and intensity of the activity (Gaines et al. 2002), and can even vary from individual to individual within a species. Responses may vary depending upon the time of day and season, type of habitat, vegetation screening and security, surrounding land use, and many other variables. Human disturbances to birds can cause nest abandonment, decline in parental care, increased stress, shortened feeding times, and potentially lower reproductive success. Just as nearby human activities can have negative effects on wildlife, there are documented cases of wildlife (ranging from bald eagles to elk) that have become habituated to human activity. Other direct effects can include motor vehicle collisions with animals or nests resulting in injury or death. Collisions between animals and vehicles are commonly reported in the literature and affected numerous wildlife species, from large mammals to amphibians (Gaines et al. 2002). Species that reproduce or frequent habitats on or near the ground are particularly vulnerable to direct impacts from collisions. These impacts are most frequent when highways and high-speed traffic is involved but is also associated with smaller, less-traveled routes to various degrees.

Indirect effects on wildlife occur when habitat is affected in a manner that does not directly impact the animal. For example, the habitat loss that occurs when a motorized route is constructed has an indirect effect on wildlife species that might otherwise utilize that habitat. Landscapes that contain a higher density of routes may have a greater direct impact on vegetation and thus a greater potential for indirect impacts on individual wildlife species and populations. Wildlife habitats may be altered when a route is placed within or near them. For example, depending upon the type and intensity of use, routes may reduce the amount of interior or “core” habitat while creating edge habitat. The creation of edge habitat may result in a shift in the species composition of wildlife. Habitat generalists (species utilizing a variety of habitats) may increase in number while interior or obligate species (species depending on large blocks of one habitat type) decline. Predators may increase and the general diversity of species may decline. Disturbances and mortality from human hunting pressure is likely to increase as the route density increases.

The ability of the habitat to be fully utilized by wildlife species is reduced and may extend for various distances from the road prism depending upon the species involved. Habitats become dissected when routes are placed within them. The habitat fragments that remain between the routes become smaller as the route density increases. Many wildlife species thrive better in large blocks of undisturbed habitat rather than smaller fragmented pieces. It is difficult to assess each

route to determine how it affects local biodiversity and contributes to habitat fragmentation for different groups of species. It is therefore assumed that local biodiversity attributes would be reduced as habitat fragmentation (i.e., route density) increases and protecting large, undisturbed blocks of habitat would be a key consideration when making decisions concerning travel management. A reduction in habitat fragmentation would maintain wildlife movement corridors between existing habitat blocks and help facilitate movement between habitat types and across the landscape.

Existing travel limitations and exceptions identified under the 2001 amendment to the Lemhi RMP would remain in effect under all alternatives. This includes seasonal closures, the ability of the public to travel up to 300 feet from designated routes for direct access to campsites, retrieve downed big game, or harvest forest products, and snowmobile use. As motorized vehicles leave designated routes wildlife could be displaced, and habitat could be impacted by the crushing of vegetation. These impacts would vary based on the miles of designated routes in the alternatives.

#### Alternative 1 – Existing Management

Direct/Indirect Impacts: Under this alternative, impacts to wildlife would be the same as what are occurring now for the short term. If use increases overtime, as expected, that use would further fragment habitat for those species currently not impacted by road densities due to low traffic volume. Over time, these species would likely decrease in numbers and possibly diversity. Road maintenance described under this alternative would displace wildlife species during the maintenance time. Following the timing restrictions under the Actions common to All Alternatives section would limit some of those impacts.

#### Alternative 2

Direct/Indirect Impacts: There would be fewer designated routes on the landscape, which would lessen the degree of impacts that are currently occurring (Alternative 1). With the decreased miles of routes the likelihood of wildlife density and diversity remaining similar to today, or increasing, would improve.

Effects to important wildlife habitat would change in the following manner. In relation to Canada lynx, there would be 30 miles of roads within LAUs and 17 miles within lynx habitat within the LAUs. This would differ from the 49 miles and 22 miles, respectively, that would be present under Alternative 1.

For big game the miles of road in winter range and crucial winter range for elk and deer would also decrease. There would be 191 miles of roads in elk winter range including 72 miles in crucial winter range. Of those miles, 23 would have seasonal restrictions limiting use during the winter months, 22 of those miles within crucial winter range. There would be 177 miles of routes in deer winter range, 41 of those miles would be in crucial winter range. Of those miles, 39 would have seasonal restrictions during the winter months, 13 of which would be in crucial winter range.

There would be 214 miles of routes in mapped sage-grouse habitat; in comparison Alternative 1 would have 308 miles of routes in the sage-grouse habitat. There would be 32 miles of routes within mapped summer habitat, 63 miles within winter habitat, and 97 miles within spring (nesting) habitat. Within the priority area established by the Challis Sage-grouse Local Working Group there would be 120 miles of routes.

The road construction and maintenance that would occur under this alternative is small and, for the most part, would occur near private lands. During the time of construction and maintenance wildlife would be displaced. Following the timing restrictions would help prevent wildlife displacement during some key times of the year, wintering and breeding. A small portion of habitat would be altered due to the construction, but it is a very small portion of the habitat available to wildlife throughout the area.

### Alternative 3

Direct/Indirect Impacts: There would be fewer roads on the landscape, which would decrease the impacts that are currently occurring (Alternative 1). With the decreased miles of routes the likelihood of wildlife density and diversity remaining similar to today, or increasing, would improve. Compared to Alternative 2, there would be 10 more miles of roads under this Alternative. Impacts from maintenance and construction would be identical to Alternative 2.

Effects to important wildlife habitat would change in the following manner. In relation to Canada lynx, there would be 39 miles of roads with LAUs and 20 miles within lynx habitat within the LAUs. This would differ from the 49 miles and 22 miles, respectively, that would be present under Alternative 1.

For big game the miles of road in winter range and crucial winter range for elk and deer would also decrease. There would be 203 miles of roads in elk winter range including 72 miles in crucial winter range. Of those miles, 23 would have seasonal restrictions limiting use during the winter months, 22 of those miles within crucial winter range. There would be 178 miles of routes in deer winter range, 42 of those miles would be in crucial winter range. Of those miles, 39 would have seasonal restrictions during the winter months, 13 of which are in crucial winter range.

There would be 224 miles of routes in mapped sage-grouse habitat; in comparison Alternative 1 would have 308 miles of routes in the sage-grouse habitat. There would be 34 miles of routes within mapped summer habitat, 64 miles within winter habitat, and 100 miles within spring (nesting) habitat. Within the priority area established by the Challis Sage-grouse Local Working Group there would be 125 miles of routes.

Alternative 4 – Minimum Access

Direct/Indirect Impacts: There would be fewer roads on the landscape, which could decrease the impacts compared to the current situation (Alternative 1). With the decreased miles of routes, the likelihood of wildlife density and diversity remaining similar to today or increasing would improve. This alternative has the lowest miles of designated routes of any alternative. This would lead to fewer direct and indirect impacts to wildlife and their habitat. Impacts from maintenance and construction would be identical to Alternative 2.

Effects to important wildlife habitat would change in the following manner. In relation to Canada lynx, there would be 18 miles of roads with LAUs and 12 miles within lynx habitat within the LAUs. This would differ from the 49 miles and 22 miles, respectively, that would be present under Alternative 1.

For big game the miles of road in winter range and crucial winter range for elk and deer would also decrease. There would be 94 miles of roads in elk winter range including 37 miles in crucial winter range. Of those miles, eight would have seasonal restrictions limiting use during the winter months, all of those miles within crucial winter range. There would be 85 miles of routes in deer winter range, 18 of those miles would be in crucial winter range. Of those miles, 15 would have seasonal restrictions during the winter months, five miles of which are in crucial winter range.

There would be 108 miles of routes in mapped sage-grouse habitat; in comparison Alternative 1 would have 309 miles of routes in the sage-grouse habitat. There would be 22 miles of routes within mapped summer habitat, 32 miles within winter habitat, and 43 miles within spring (nesting) habitat. Within the priority areas established by the Challis Sage-grouse Local Working Group there would be 54 miles of routes.

**Table 10: Miles of designated routes within certain wildlife habitats by Alternative.**

Wildlife Habitat by Species			Alternative 1 – Existing Management	Alternative 2	Alternative 3	Alternative 4 – Minimum Access
Miles Within Mapped	Canada Lynx	LAUs	49	30	39	18
		lynx habitat within LAUs	22	17	20	12
	Mule Deer	winter range	221	177	178	85
		winter range without seasonal restrictions	180	138	139	70
		crucial winter range	51	41	42	18
		crucial winter range without seasonal restrictions	39	28	29	13
	Elk	winter range	276	191	203	94
		winter range without seasonal restrictions	249	168	180	886
		crucial winter range	96	72	72	37
		crucial winter range without seasonal restrictions	71	50	50	29
	Sage-grouse	key habitat	308	214	224	108
		summer habitat	47	32	34	22
		winter habitat	88	63	64	32
		spring habitat	144	97	100	43
		CSSLWG priority areas	168	120	125	54

### Cumulative Impacts of Alternatives

Cumulative effects are defined by the Council on Environmental Quality as “...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7).

This section of the document discloses the incremental impact that the alternatives are likely to have when considered in the context of impacts associated with past, present and reasonably foreseeable future actions that have occurred, or are likely to occur, in the area.

The Cumulative Impact Assessment Area (CIAA) for this analysis includes the BLM Salmon Field Office North Travel Planning Area and the adjacent lands managed by other entities occurring within the same watersheds (Map #13, Cumulative Impact Assessment Area). The CIAA area consists of approximately 700,000 acres, with about 47% of those acres managed by the USFS, 36% managed by the BLM, 2% managed by the IDL, and the rest primarily privately owned. For all of the resources affected by the alternatives described in this document, this CIAA is the landscape unit that defines the bounds of the cumulative analysis. As identified in the Actions Common to All Alternatives, #7, the BLM will continue to validate travel management designations if new information comes available on route location. It is expected

that routes will be designated in the remainder of the Salmon Field Office within the next three years.

### **Past and Present Actions**

The BLM follows a multiple use mandate that allows for many resources and uses besides transportation, including, but not limited to:

- Range (including grazing permits, troughs, fences, pipelines),
- Recreation (including developed recreation sites, dispersed recreation, Outfitter and Guide permits),
- Oil, gas, and geothermal exploration and permits,
- Wildlife (including research, construction and maintenance of guzzlers, habitat improvements),
- Fisheries (including research, culvert replacements, habitat improvements),
- Minerals (including free use permits, mineral material sales),
- Fuels management (including hazardous fuels reductions, invasive weed treatments),
- Forest Resources (including harvest, forest health actions), and
- Realty (including ROWs, easements, land transfers).

In the past, motorized use has been largely unregulated, due in part to limited use. Travel routes were often created for resource access needs such as mining, grazing, water management, and timber harvest were typically minimally-impacting as those routes received use once, or perhaps a few times over the course of a year. Mining and timber roads would typically see the most active use during extraction activities, but road use would decline precipitously after those activities ceased. Additionally, in the past, private lands in the West were often large ranches with few fences or other impediments to public usage.

Over the recent years, as population growth has exploded in the West, and motorized technology has outpaced planning efforts, resource impacts from un-managed motorized transportation have become a serious issue for the BLM, USFS, and other land management agencies. At the same time, private lands have become increasingly subdivided, resulting in reductions in areas that were generally open to public access, and increasing pressure on adjacent public lands to address access needs. In the 2001 LRMPA, the Salmon Field Office adjusted travel management from generally “open”, to “limited” for most of the Field Office. This action also restricted cross-country travel. Routes were designated in a few areas with significant resource issues and known conflicts. In some areas, seasonal restrictions were implemented to protect wildlife or reduce the potential for soil impacts. These changes were brought about by the need to address the proliferation of routes across the landscape and subsequent impacts to all resources.

Past and present actions, such as road maintenance, infrastructure development (roads, powerlines, pipelines, etc) OHV use, recreation, weed invasion and/or control, grazing, fire, land conversion for agricultural or residential development, mining, and reclamation have affected the resources analyzed to varying degrees. Specifically, the following actions are known to have affected the analyzed resources individually, or in conjunction with one another:

### *Livestock Grazing*

Livestock grazing has been occurring in the Salmon and Lemhi areas since the 1800's and remains an important part of the local economy and way of life. There are 46 grazing allotments administered by the BLM within the CIAA area; the USFS has similar numbers of allotments in the CIAA.

### *Recreational Uses*

Dispersed recreational activities in the CIAA have include hiking, fishing, boating, camping, backpacking, wildlife viewing, mountain biking, OHV riding, scenic driving, hunting, and photography. These activities occur on both FS and BLM lands. Most recreation activity occurs during the summer and fall, and is concentrated at the 12 developed BLM recreation sites. Dispersed recreation use is most popular in the backcountry during the fall hunting season. Currently, ten outfitters have special recreation use permits to guide hunting, fishing, horse packing, and/or river floating trips. The CIAA area also includes a Recreation and Public Purposes Act lease to Lemhi County for the management and operation of the Sacajawea Motorsports Park, which includes a model airplane field and a developed motocross track. During the winter months, snowmobile and cross-country skiing occurs on groomed trails on both the BLM and Forest Service within the CIAA area, accessible via public lands. The current transportation network is a system of planned and unplanned roads and trails totaling about 533 miles. Many routes were created by the passage of vehicles in support of activities such as grazing, mineral exploration and timber production. Routes were often pioneered or constructed in the most direct manner possible to a specific location and for a specific need. The route network receives extensive use by recreationists both traveling the routes as a means of recreation and those using the routes to access remote areas to recreate.

### *Timber Harvest and Hazardous Fuels Reduction*

Since 1980, there have been 17 timber sales on BLM lands within the CIAA area, totaling 2858 acres harvested. There are three harvest projects currently taking place. Removal of the trees has required the construction of 14.1 miles of access roads. There has not been any road construction, temporary or otherwise, associated with hazardous fuels reduction contracts within the CIAA area. Timber harvest and fuels reduction projects have also occurred on adjacent USFS and private lands, and additional projects are currently underway.

### *Agricultural Development*

Similar to livestock grazing, agricultural development is found throughout the CIAA area and dates back to the early settlement of the area in the 1800's. Most the agricultural development is found along the valley floor in the lower elevations along U.S. Highway 93 and, State Highway 28. Approximately 100,000 acres, or 7 percent of the lands within the CIAA area, is currently used for agricultural purposes. Water diversion for irrigation of these lands is associated with streams located on public lands or private wells located on private land.

### *Residential Development and Infrastructure*

Residential development in the CIAA is found mostly along the primary transportation routes U.S. Highway 93 and State Highway 28. Some larger ranches have been sold and subdivided

which has increased housing along these routes. There are also many residences found along some of the larger, wider drainages in the area, such as Carmen Creek, Withington Creek, Kirtley Creek, and Geertson Creek. Along with residential development, access roads, distribution powerlines and telephone lines are needed and have been constructed to meet the public demand need for infrastructure.

#### *Mineral Activities*

Past mineral activities in the TMP project area began in the late 1800's with limited placer and lode gold mining in localized areas throughout the region. Lead, zinc and silver were discovered about this same time; which brought thousands of prospectors and miners to the Nicholia and Gilmore areas. In the early twentieth century, copper, uranium and thorium exploration (especially in the 1950's) dominated the region. All of these unregulated activities resulted in numerous changes to the landscape; including the construction of settlements and towns, road networks, and mining and exploration structures and excavations.

The area's present mineral activities include limited "Notice" level prospecting and some production of mineral materials including building stone, soil (clay) and gravel. Much of the mineral material production has come from private lands. The Notice level metal exploration activities have been well-regulated, bonded and have concentrated mostly on gold exploration. Recently thorium and rare-earth elements (REE's) have recently caught the interest of prospectors and mineral investors, but activities for these elements are still on a very limited basis.

#### *Road Construction and Maintenance*

In 2007, the Salmon Field Office received multi-year funding to maintain and upgrade several roads, including some within the CIAA. Approximately 15 miles of road were improved, with associated surfacing, and drainage improvements (culverts and rolling dips) in an effort to reduce impacts to water quality. Each year, annual maintenance is performed on BLM, USFS and Lemhi County roads within the CIAA. On an average approximately 30 miles of road are maintained on BLM-administered lands within the CIAA.

#### *Forest Service Travel Plan 2010*

The Salmon-Challis Travel Plan was completed in 2010. The Forest Service Record of Decision implemented their Preferred Alternative (Alternative 5), which designated 2,670 miles of roads and 864 miles of motorized trails for public motor vehicle use, Forest-wide. This is a reduction of 250 miles of roads and 255 miles of motorized trails when compared to the No Action Alternative. The designation of routes includes the limited use of motor vehicles within 300 feet of most roads and trails solely for the purpose of dispersed camping. Motor vehicle use off the designated system, including the use of motor vehicles for game retrieval, is no longer allowed. Although much of the USFS planning area is outside the CIAA, the end result is a designated route system and restrictions on cross-country travel similar to what BLM is proposing.

### **Reasonably Foreseeable Future Actions**

All of the past and present actions described above are expected to continue into the reasonably foreseeable future. The intensity of the actions may vary through time depending on economic factors, changes in management direction, and population changes. No actions beyond those discussed can be predicted to occur with certainty in the foreseeable future.

#### *Livestock Grazing*

The intensity and the character of livestock grazing are anticipated to remain constant in the foreseeable future. It is reasonable to expect a continuation of the construction of range improvement projects such as enclosures to protect water sources, water pipelines, water troughs, fences and adjustments to grazing management such as alterations of stocking levels or season of use to facilitate grazing management.

#### *Recreational Uses*

Based on the BLM and USFS visitor use data management system, trends lean towards an increase in visitor use in both developed and dispersed recreation settings located within the CIAA. Activities that have been popular in the past will likely continue into the future. The transportation network will continue to be utilized for both travel and recreation at increasing levels.

The BLM anticipates routine maintenance and improvements to many of the developed recreation sites located within the CIAA. Larger improvement projects at existing developed recreation areas are likely as well. It is expected that a number of mountain biking, hiking, and equestrian trails will be signed and mapped within the CIAA.

#### *Timber Harvest and Hazardous Fuels Reduction*

There are currently 672 acres of timber harvest scheduled for implementation on the Salmon Field offices' five-year timber sale action plan. There is no road construction planned as part of this harvest; however it is anticipated there will be approximately one mile of temporary road to facilitate hauling of forest products from the sale areas. Temporary roads would be made impassable following contract termination and seeded to native grass and forb species. There is not any road construction, temporary or otherwise associated with hazardous fuels reduction contracts planned for the foreseeable future within the CIAA area.

#### *Agricultural Development*

Future agricultural development would be tied to the availability of new tracts of land for cultivation, availability of water, and the economy. At the present time there are no plans to dispose of any public lands for agricultural purposes and there are no known proposed subdivisions in the CIAA area. It is anticipated that agricultural development would remain at the current level or decline in the foreseeable future as the demand for residential and commercial purposes increases.

#### *Residential Development and Infrastructure*

Future residential development would be tied to the availability of new tracts of land for subdivision and the economy. At the present time there are no known proposed subdivisions in

the CIAA area. It is anticipated that residential development would remain at the current level or increase in the foreseeable future. Along with any new residential development, additional access roads, distribution powerlines and telephone lines will be needed.

#### *Mineral Activities*

Future mineral activities will likely increase, with emphasis placed on metal exploration mostly for gold, silver, cobalt, thorium and various rare earth elements (REE's). There will also be an increasing need for mineral materials, especially gravel and gravel related products as populations increase. In the farther distant future there is the possibility that exploitation of known geothermal resources may occur. Currently the region's remoteness hinders this activity.

#### *Road Construction and Maintenance*

It is expected that road construction and maintenance will occur at, or near, the same levels as it has in past years. The primary influence on this factor will be agency budgets as the miles of roads maintained on an annual basis is primarily driven by road conditions and funding levels.

#### **Cumulative Impacts Common to All Alternatives**

No on-going activities occurring within CIAA would cumulatively affect the designation of specific motorized routes or alter the amount, type and season of motorized routes.

Access: At this point in time, there are no landowners willing to allow public legal public access in an easement to the BLM. Should the BLM acquire additional legal public access easements across existing roads on private land, there would be no change to the existing, on the ground road network because no new roads would be constructed. Over time, private land development has resulted in limitations on access to public lands and increased use in areas that have continued to allow access. Future subdivisions and or residential development on private land may further decrease access and result in the need for the creation of access roads across public lands to reach areas otherwise inaccessible.

Cultural Resources: Numerous activities have impacted cultural resources within the CIAA, individually and collectively. Livestock congregating on floodplain surfaces and spring sources, trailing routes, salting locations and water developments, and other grazing-related actions have disturbed, destroyed, and otherwise altered cultural resources. Unrestrained recreational travel by motor vehicles, agricultural and residential development, mining activities, and road construction has had similar impacts. Anticipated increases in recreational use are likely to result in increased visitation to cultural resources and the possibility of vandalism or unintentional disturbance. The designation of routes and associated restrictions on use, at any level, will result in the reduced potential for disturbance beyond the existing condition. The current limitation on "existing routes" provides unclear and unenforceable guidance to the public, resulting in continued proliferation of routes and associated impacts to cultural resources.

Economic and Social Values: Since the advent of the 4-wheeled ATV (circa 1981) and the corresponding increase in motorized recreation use on public lands, conflicts between public land users, private landowners and agency permittees have been steadily rising as a result of

unwelcome noise and the minority of users who cut fences, leave gates open, and trespass, etc. In several locations within the planning area, private lands owners have responded to these issues by blocking access over their lands, thereby restricting access to public lands. For the foreseeable future, it is reasonable to assume that the planning area would experience a modest but steady increase in motorized and non-motorized recreational vehicle use, and with this increase, private land owners will further restrict public access.

Past and present, the overall social and economic impacts of motorized and non-motorized travel within the planning area have been relatively low when compared to other regions and public lands across the west. This reflects relatively low numbers of visitors who use and travel the planning area (outside of hunting season). However, as agricultural lands that border public lands continue to transition to residential properties, user conflicts between home owners and those traveling across public lands would likely increase. At some threshold, impacts resulting from increasing motorized travel will incrementally begin to diminish the quality of other kinds of non-motorized recreation experiences. Under any planning alternative, government costs associated with maintaining routes and monitoring and regulating use would increase accordingly. Increasing recreational vehicle use may also result in shifts of some motorized and non-motorized uses and activities to other locations.

Although difficult to measure, anticipated increases in both motorized and non-motorized uses will continue to bring in additional revenues to local commercial interests as a result of increasing sales and repair of ATVs and mountain bikes; and the need for amenities such as food, beverage, and motels to accommodate increasing visitor use.

*Existing and Potential Land Uses:* Permitted land uses such as pipelines, roads, telephone lines, powerlines and livestock grazing have resulted in alterations to the landscape in the form of visual and habitat alteration, fragmentation and disturbance. Rights-of-way are typically authorized for up to 30 years with the potential for renewal upon expiration and land use permits are authorized for three years with the potential for renewal. These current and future types of uses are compatible with the existing uses in the area and provide a public need. The demand for such uses is likely to increase with increases in population, development of private lands, and better identification and recognition of land ownerships. Any reduction in access is likely to result in the increased need for authorization of access requests to conduct such land uses.

*Fisheries/Threatened/Endangered/Sensitive Fish:* It is expected that past impacts to these resources from actions such as livestock grazing, irrigation practices, wildfire and roads are likely to continue at some level into the future. Livestock grazing and agricultural/irrigation practices on private lands in the lower elevation portions of the area have reduced fish habitat amount and quality, and have reduced or eliminated access into in many tributary streams via stream diversions. Roads on all land ownerships within the CIAA cause erosion of banks and contribute sedimentation to fish habitat, have altered floodplain function, and increased drainage networks. Additionally, culverts and stream crossings can be barriers that limit fish migration and distribution.

These activities occur to a varying degree on all of the fish-bearing streams in the CIAA and are the primary impacts to fish and their habitats relative to travel routes on public land. However, ongoing mitigation actions such as removal of migration barriers, changes in livestock grazing management and reconnection of tributary streams will continue into the future, perhaps even at accelerated rates, reducing overall cumulative impacts to this resource. The designation of routes and associated restrictions on use, at any level, will result in the reduced potential for disturbance beyond the existing condition.

*Invasive, Non-invasive Species:* Noxious weeds are extremely mobile and by definition, are aggressive and have a high risk of expansion. Although travel corridors (both motorized and non-motorized) are prime vectors of noxious weed expansion, other activities also contribute to their expansion. Any ground disturbing activity increases the risk of noxious weed establishment due to vegetation disturbance and surface soil alteration. During project development on public lands, all authorized ground disturbing project activities (livestock grazing, new road construction, fuels reduction projects, utility corridor maintenance and upgrades, special recreation events, and mining exploration and development etc.) are designed with best management practices geared towards mitigating noxious weed establishment. Big game animals and domestic grazing also contribute to noxious weed establishment as a means of seed dispersal and the potential for ground disturbing activities. The risk of noxious weed expansion by these activities is relatively constant, resulting in minimal cumulative effects.

The designation and signage of routes should help the public understand which areas are open for travel beyond the current limitation of “existing” routes, reducing the potential for spread of noxious weeds into new areas. However, the designation of routes, in and of itself, does little to stop the spread of weeds along those routes and thus has little cumulative effect to the existing condition.

*Recreation Use:* Current indicators suggest the planning area would experience a modest but steady increase in motorized and non motorized recreational use for the foreseeable future, along with a corresponding increase in user conflicts. The impacts to recreation and visual resources within the CIAA come primarily from range, mineral, realty, and recreation-related actions. The transportation system, while not a function of any one resource, also affects recreation and visual resources.

Range management-related fencing is often an impediment to recreational users and can add to confusion when trying to differentiate private and public lands. Most range related improvements (troughs, pipelines, and fences) impact visual resources to some extent and reduce the naturalness of the area.

Mineral activities tend to displace recreational use, but are currently not prevalent in the planning area. These activities also create visual contrasts in the landscape over the course of their lifespan and until rehabilitation efforts are completed.

Realty actions can both impair and improve recreational access. ROWs and easements are often attained to ensure public access to an area otherwise controlled by private land ownership.

However, land sales and exchanges may result in acreage lost to general public recreational pursuits.

Recreation actions generally benefit one type of recreational user group, often at the expense of another. For example, a campground designed for modern motor-homes may discourage users who prefer a primitive tent camping experience and a boat launch designed for canoes would displace motorboat access. Increasing levels of recreational development generally correspond to increasing levels of visual contrast as well, dependant on the existing setting. For example, a developed campground along a highway corridor would result in less visual contrast than that same level of development in a primitive area.

Similar to recreation actions, transportation system actions generally benefit one recreational user group at the expense of another. However, designation of routes and associated restrictions on use, when considered with the effects of other activities, will improve the overall recreational experience for all user groups.

Soils: Cumulative effects to soils include changes in erosion rates, compaction, infiltration, vegetative cover, and stability. The increasing intensity and diversity of activities taking place on public lands with increased population would be expected to cumulatively affect soils.

Vegetation treatments are frequently beneficial to soils in the long term. The long term objective of these treatments is ecosystem health, which may increase soil stability after recovery. Short term effects of vegetation treatments to soils may result in increased vulnerability to erosion due to the loss of vegetative cover. Proper project design minimizes this risk.

In general, rangeland health assessments show that soil standards are being met, or are making significant progress towards being met, under current livestock management practices. Anticipated population growth and associated increased demand for uses on public lands would be expected to cause greater soil compaction and vegetative loss over time. The projected increase in recreational OHV use, if unmanaged could continue the current negative impacts to the soil resource and watershed health. The creation of a designated route system, in and of itself, does not alter erosion rates or other effects to the soil resources. Implementation of the seasonal restrictions identified under Actions Common to All Alternatives #1 will ensure the continued protection of these areas with naturally erosive soils.

Threatened/Endangered Plants, Sensitive Plants: Habitat fragmentation and grazing by livestock and wildlife have had negligible to minor impacts to sensitive plants in the CIAA. Monitoring has shown that the more palatable sensitive plants are grazed by both livestock and wildlife. Sensitive plant populations have been fragmented by OHV vehicle use, route development, road maintenance, mining, forestry, canal construction and agricultural development (Elzinga 2002).

Sensitive plants found directly in or along the road prisms will continue to be impacted. Continued application of herbicides to invasive plants along designated routes may damage

sensitive populations (Elzinga 2002). Conversely, not spraying weeds could cause more damage through invasive plant competition to sensitive plants.

Long term road maintenance activities have the potential to damage sensitive plants in and adjacent to the road prism through direct physical damage or by directing water in a way that erodes soil from around individual plants. Natural impacts from wildlife, water, and wind erosion would continue to occur under any alternative. The designation of routes and associated restrictions on use, at any level, will result in the reduced potential for disturbance beyond the existing condition.

*Tribal Treaty Rights and Interests:* Impacts to cultural resources also impact Tribal Treaty Rights, as the two are intermeshed. Private and public road construction and maintenance, water utilization and ditches, livestock grazing, and the spread of invasive plants and noxious weeds have impacted culturally important species (i.e., salmon, steelhead, sage grouse, deer and elk) through habitat fragmentation, habitat alteration and disturbance. These actions may also directly affect important riparian and upland tribal food resources. Actions that have the potential to effect traditional procurement methods such as spear fishing, which requires clear water for success, are also of concern to the Shoshone-Bannock Tribes.

Transfer and sale of federal lands, issuance of land use permits, authorization of large scale disturbances such as mining actions, and private trespass on federal lands have the cumulative effect of reducing the federally managed land base available for the exercise of treaty-reserved rights. Additionally, limitations on access to public land across private lands are increasing, further reducing the opportunity to exercise treaty-reserved rights.

Local viewshed qualities, important in tribal cultural and traditional pursuits have been affected by agricultural and residential development, timber harvest and mineral extraction. The expected increase in population and use of public lands will result in continued conflict between public uses and unhindered practice of Tribal Treaty Rights.

Individually and in coordination such past activities have adversely impacted some Cultural Resources/Tribal Treaty Rights and Interests located within the CIAA. The designation of routes would result in motorized travel only on specific routes reducing impacts to known and unknown cultural resources, while the ability to continue unhindered motorized access to public lands will provide for the opportunity to exercise Tribal Treaty Rights.

The BLM will continue to meet its federal trust responsibilities by consulting with the Shoshone-Bannock Tribes on a case-by-case basis during project planning and prior to project implementation in order to assess the potential cumulative effects to reserved treaty rights and cultural resources of concern to the Tribes.

*Vegetation:* Impacts to native vegetation occur from activities such as road maintenance, OHV use, weed invasion and/or control, grazing (both domestic and wildlife), fire, development, agricultural conversion, and mining. Impacts to relevant vegetative cover types occur at the local and regional level and could be beneficial (e.g., integrated weed management program

implementation) or adverse (e.g., off-trail OHV use) to the native vegetative resource. Designation of routes, at any level, would result in reduced impacts to vegetative communities. Under any alternative, cumulative impacts of this action, coupled with other local and regional impacts, would be minor and would be along the same trend as current management.

Water Quality: The additional past, present and future impacts include a decrease in water quality with respect to erosion and elevated water temperatures from riparian and stream habitat alteration from livestock grazing, irrigation practices, wildfire and roads. Livestock grazing and agricultural/irrigation practices on private lands in the lower elevation portions of the area have negatively impacted water quantity and quality via stream diversions, reducing flows and elevating water temperatures. Roads on private, State and National Forest lands within the CIAA also contribute limited erosion and sedimentation to adjacent streams. Because impacts to this resource derive primarily from the existence of the roads themselves, the creation of a designated route system, in and of itself, does not alter erosion and sedimentation or have other effects to water quality. Implementation of the seasonal restrictions identified under Actions Common to All Alternatives #1 will ensure the continued protection of these areas with naturally erosive soils.

Wetlands/Riparian Zones: Both natural disturbances such as fire, and most public land uses including livestock grazing, irrigation practices, and roads have had, and will continue to have, some level of impacts to wetlands, riparian areas and aquatic habitat. Impacts have included elevated stream temperatures, increased erosion rates, altered vegetation communities, lowered water tables and complete loss of riparian communities. Recent changes in livestock grazing management and fisheries restoration activities occurring throughout the CIAA have resulted in improving conditions across all land ownerships. Because impacts to this resource derive primarily from the existence of the roads themselves, the creation of a designated route system, in and of itself, does not alter erosion and sedimentation or have other effects to water quality. Implementation of the seasonal restrictions identified under Actions Common to All Alternatives #1 will ensure the continued protection of these areas with naturally erosive soils.

Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds: Cumulative effects to wildlife in the CIAA can be caused by both natural and human influenced actions. These effects cause fragmentation of habitat or displacement of wildlife beyond what is caused by just the travel management being analyzed in this document. In the CIAA, habitat has been fragmented or altered by urbanization and agricultural development on private lands. Natural processes, like wildfire, have fragmented some habitat types, while also creating habitat for other species. Uses such as livestock grazing or timber harvest have altered habitat and caused fragmentation. Various activities such as hikers or the presence of livestock can displace wildlife from habitats.

These cumulative impacts have been occurring within the CIAA for more than 100 years. If use increases over time as expected, there would be increased displacement of wildlife and habitat fragmentation; this would happen at the same time that other influences are decreasing or increasing that also fragment habitat and displace wildlife. The designation of routes and

associated restrictions on use, at any level, will result in the reduced potential for disturbance beyond the existing condition.

### **Cumulative Impacts of Alternative 1**

Access: There would be no change to access from current conditions. Additional cumulative impacts beyond those described under Cumulative Impacts Common to All Alternatives likely include increased unauthorized motorized use and associated resource impacts and user conflicts resulting from inconsistent BLM and USFS travel plans. Conflicts associated with limitations on public access across private lands to adjacent public lands may increase where designated routes lead to private lands without easements.

Cultural Resources: There are no additional cumulative impacts to Cultural Resources expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Economic and Social Values: There are no additional cumulative impacts to Economic and Social Values expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Existing and Potential Land Uses: There are no additional cumulative impacts to Existing and Potential Land Uses expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Fisheries/Threatened/Endangered/Sensitive Fish: There are no additional cumulative impacts to Fisheries/Threatened/Endangered/Sensitive Fish expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Invasive, Non-invasive Species: There are no additional cumulative impacts to Invasive, Non-invasive Species expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Recreation Use: Additional cumulative impacts to Recreation Use beyond those described under Cumulative Impacts Common to All Alternatives likely include user conflicts as a result of increased unauthorized motorized use resulting from inconsistent BLM and USFS travel plans. Conflicts associated with limitations on public access across private lands to adjacent public lands may increase where designated routes lead to private lands without easements.

Soils: There are no additional cumulative impacts to Threatened/Endangered Plants, Sensitive Plants expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Threatened/Endangered Plants, Sensitive Plants:

There are no additional cumulative impacts to Threatened/Endangered Plants, Sensitive Plants expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Tribal Treaty Rights and Interests: There are no additional cumulative impacts to Tribal Treaty Rights and Interests expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Vegetation: There are no additional cumulative impacts to Vegetation expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Water Quality: There are no additional cumulative impacts to Water Quality expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Wetlands/Riparian Zones: There are no additional cumulative impacts to Wetlands/Riparian Zones expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds:

There are no additional cumulative impacts to Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds expected under Alternative 1 beyond those described under Cumulative Impacts Common to All Alternatives.

## **Cumulative Impacts of Alternative 2**

Access: Implementation of this alternative, in conjunction with restrictions on motorized vehicle access on USFS lands within the CIAA, serves to restrict motorized access beyond current levels. Some users may view this as an unnecessary and unwelcome change; others may view it positively due to increased levels of conflict between motorized and non-motorized users. The road rerouting and construction identified under Alternative 2 would reduce user conflicts by providing legal access around several private land parcels and developing an ATV route where a demand for such use currently exists. This alternative will provide for an open route network that coincides with adjacent USFS routes will reduce the potential for unauthorized use and decrease associated user conflicts. Closing roads where BLM does not currently hold legal public access across the adjacent private lands will further reduce the potential for conflict between users that are granted access and those that are not. This Alternative will greatly increase the need for monitoring and compliance to ensure restrictions are being followed, as well as likely increase the number of authorizations required by BLM in order to provide access for development of land uses such as powerlines.

Cultural Resources: Clearly defined travel designations and the reductions in open roads would reduce accidental impacts to known and unknown cultural resources. The road rerouting and construction are not expected to have any additional impacts as all will be evaluated for impacts to

Cultural Resources prior to construction. Cumulative impacts in the CIAA would otherwise be similar to those described under Cumulative Impacts Common to All Alternatives.

Economic and Social Values: There are no additional cumulative impacts to Economic and Social Values expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Existing and Potential Land Uses: There are no additional cumulative impacts to Existing and Potential Land Uses expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Fisheries/Threatened/Endangered/Sensitive Fish: There would be a slight reduction in the impacts from motorized use to Fisheries/Threatened/Endangered/Sensitive Fish expected under Alternative 2. As unused roads revegetate, erosion resulting in sediment input to streams is expected to be reduced. There are no additional cumulative impacts to Fisheries/Threatened/Endangered/Sensitive Fish expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives. The location of the roads proposed for construction and reconstruction are away from streams and thus no impacts are expected.

Invasive, Non-invasive Species: With the reduction in road mileage available for use by motorized vehicles and the subsequent reduction in vectors for transport of seeds, there is expected to be a corresponding reduction in the spread of Invasive Species. There are no additional cumulative impacts to Invasive, Non-invasive Species expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Recreation Use: The road rerouting and construction identified under Alternative 2 would provide legal access around several private land parcels and develop an ATV route where a need for such use currently exists, providing for increased recreational opportunities. This alternative will provide for a route network that coincides with adjacent USFS routes will reduce the potential for unauthorized use and decrease associated user conflicts, providing for a seamless route network across the landscape. Closing roads where BLM does not currently hold legal public access across the adjacent private lands will further reduce the potential for conflict between users that are granted access and those that are not. There are no additional cumulative impacts to Recreation Use beyond those described under Cumulative Impacts Common to All Alternatives.

Soils: Cumulative impacts to soils would be reduced commensurate with the reduction of vehicular use. There would be short term impacts to soils during road construction and reconstruction as well as during rehabilitation efforts. Soil impacts in areas where past practices involved vehicular use would be reduced significantly by road closures and reclamation work. There are no additional cumulative impacts to Soils expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Threatened/Endangered Plants, Sensitive Plants:

Implementing Alternative 2 will reduce the cumulative impacts to Threatened/Endangered Plants, Sensitive Plants and associated habitat across the landscape. The removal of impacts along routes not designated for use will allow plant populations to recover from past impacts and potentially increase in number and density. The road rerouting and construction are not expected to have any additional cumulative impacts as they will be evaluated prior to construction to ensure impacts are limited and of short duration. There are no additional cumulative impacts to Threatened/Endangered Plants, Sensitive Plants expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Tribal Treaty Rights and Interests: There are no additional cumulative impacts to Tribal Treaty Rights and Interests expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Vegetation: Implementing Alternative 2 will reduce the cumulative impacts to Vegetation. The removal of impacts along routes not designated for use will allow approximately 200 acres of roadbed to be reclaimed, either naturally or through BLM efforts. This will primarily benefit the Forest and Woodland (approximately 19 fewer miles of open road) and Semi-desert Shrubland and Grassland vegetative cover types (approximately 116 fewer miles of open road). Additionally, there will be an overall minor beneficial effect to native vegetation existing within the 300 foot route buffer currently open for limited motorized use along existing routes. This Alternative would decrease the negative cumulative impacts on vegetation since the number of designated routes that would fragment vegetative communities would decrease from the current situation. There are no additional cumulative impacts to Vegetation expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

Water Quality: Implementing Alternative 2 will reduce the cumulative impacts to Water Quality. There would be fewer open routes on the landscape, and the subsequent revegetation of these routes would slightly lessen the potential to negatively impact water quality from erosion. However, unless these routes are completely rehabilitated, the impacts would only be lessened, not eliminated. There are no additional cumulative impacts to Water Quality expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives. The roads proposed for construction and reconstruction are located away from streams and thus no impacts are expected.

Wetlands/Riparian Zones: Implementing Alternative 2 will reduce the cumulative impacts to Wetlands/Riparian zones where routes are no longer open in and adjacent to riparian areas, a reduction of 6.4 miles in routes negatively impacting wetland/riparian areas. However, unless these routes are completely rehabilitated, the impacts would only be lessened, not eliminated. There are no additional cumulative impacts to Water Quality expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives. The roads proposed for construction and reconstruction are located away from streams and thus no impacts are expected.

Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds:

Implementing Alternative 2 would decrease the cumulative impacts on wildlife species since the number of designated routes that would fragment habitat and displace wildlife would decrease from the current situation. During the time of road construction wildlife would be displaced. A small portion of habitat would be altered due to the construction, but it is a very small portion of the habitat available to wildlife throughout the area. There are no additional cumulative impacts to Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds expected under Alternative 2 beyond those described under Cumulative Impacts Common to All Alternatives.

**Cumulative Impact of Alternative 3**

Access: Additional access would result from the designation of 28 miles of routes more than under Alternative 2. Under this alternative, there are no additional cumulative impacts to Access expected beyond those described under Alternative 1, Alternative 2, and Cumulative Impacts Common to All Alternatives.

Cultural Resources: Cumulative impacts under Alternative 3 would collectively be similar to those described in Alternatives 1 and 2.

Economic and Social Values: There are no additional cumulative impacts to Economic and Social Values expected under Alternative 3 beyond those described under Cumulative Impacts Common to All Alternatives.

Existing and Potential Land Uses: There are no additional cumulative impacts to Existing and Potential Land Uses expected under Alternative 3 beyond those described under Cumulative Impacts Common to All Alternatives.

Fisheries/Threatened/Endangered/Sensitive Fish: Under this alternative, there are no measureable cumulative impacts expected beyond those described under Alternative 2.

Invasive, Non-invasive Species: There are no additional cumulative impacts to Invasive, Non-invasive Species expected under Alternative 3 beyond those described under Alternative 2.

Recreation Use: Alternative 3, with the additional 28 miles of motorized routes accessed through private lands, would increase user conflicts between private land owners and recreationists when coupled with the access issues with private land in holdings that are occurring across the landscape.

Soils: Cumulative impacts under Alternative 3 would collectively be similar to those described in Alternative 2, with a slight increase in negative affects to Soils based on the increase in road mileage designated for motorized vehicle use.

Threatened/Endangered Plants, Sensitive Plants: Under this alternative, there are no measureable cumulative impacts expected beyond those described under Alternative 2.

Tribal Treaty Rights and Interests: There are no additional cumulative impacts to Tribal Treaty Rights and Interests expected under Alternative 3 beyond those described under Cumulative Impacts Common to All Alternatives.

Vegetation: Under this alternative, there are no measureable cumulative impacts expected beyond those described under Alternative 2.

Water Quality: Under this alternative, there are no measureable cumulative impacts expected beyond those described under Alternative 2. There would be more designated routes on the landscape, which would immeasurably increase the potential to negatively impact water quality from erosion to streams from travel routes.

Wetlands/Riparian Zones: Under this alternative, there are no measureable cumulative impacts expected beyond those described under Alternative 2. There would be more designated routes on the landscape, which slightly increase the potential to negatively impact wetlands/riparian zones from erosion and chemical inputs to streams from travel routes.

Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds: Under this alternative, there are no measureable cumulative impacts expected beyond those described under Alternative 2.

#### **Cumulative Impacts of Alternative 4**

Access: In addition to the impacts described under Cumulative Impacts Common to All Alternatives, implementation of this alternative would alter access to public lands and Forest Service managed lands. Very few areas would no longer have motorized access onto public lands, but motorized access within those lands would be greatly restricted due the limited number of roads designated. This could potentially result in unauthorized off road use on the BLM lands from recreation use and other public land users. Implementation of this alternative, in conjunction with restrictions on motorized vehicle access on USFS lands within the CIAA, serves to restrict motorized access beyond current levels. Some users may view this as an unnecessary and unwelcome change; others may view it positively due to increased levels of conflict between motorized and non-motorized users. Cumulatively, this alternative would result in the greatest cumulative impacts to access to public lands within the CIAA.

Cultural Resources: In addition to the impacts described under Cumulative Impacts Common to All Alternatives, implementation of this alternative would result in substantial tracts of public land not be open to motorized travel, with large reductions in miles of designated roads and trails open to the general public. Cumulatively, this condition would provide the greatest reduction in the potential for cumulative impacts to cultural resources.

Economic and Social Values: In addition to the impacts described under Cumulative Impacts Common to All Alternatives, implementation of this alternative would result in expected impacts to the local economy through potential reductions in ATV sales and service and reductions in the

number of motorized users traveling to the area for hunting activities. Although there would be opposition from many portions of the community, it is expected that users would gradually become accustomed to widespread implementation of designated trail systems. Some users may elect to abandon motorized recreation activities due to the cumulative effect of the reduced opportunities proposed under this alternative in combination with the increased restrictions on adjacent USFS lands. Cumulatively, this alternative has the potential to have the greatest negative impacts to the economy and social values within the CIAA.

Existing and Potential Land Uses: There are no additional cumulative impacts to Existing and Potential Land Uses expected under Alternative 4 beyond those described under Cumulative Impacts Common to All Alternatives.

Fisheries/Threatened/Endangered/Sensitive Fish: This alternative would provide the greatest reduction in the potential for cumulative impacts to fisheries resources. There are no additional cumulative impacts to Fisheries/Threatened/Endangered/Sensitive Fish expected under Alternative 4 beyond those described under Cumulative Impacts Common to All Alternatives.

Invasive, Non-invasive Species: With the major reduction in road mileage available for use by motorized vehicles and the subsequent reduction in vectors for transport of seeds, there would be expected to be a corresponding reduction in the spread of Invasive Species. There are no additional cumulative impacts to Invasive, Non-invasive Species expected under Alternative 4 beyond those described under Cumulative Impacts Common to All Alternatives.

Recreation Use: In addition to the impacts described under Cumulative Impacts Common to All Alternatives, implementation of this alternative would have the most negative impacts to recreation use. By implementing Alternative 4, combined with an expected increase in recreation use and other uses (forestry, ranching, agricultural practices), the BLM would not be providing a balanced, sustainable, route network that would meet the demands of the public. Similar to Alternative 1, this alternative would result in user conflicts and increased unauthorized motorized use from inconsistent BLM and USFS travel plans.

Soils: Based on the reduced in road mileage designated for motorized vehicle use, implementation of this alternative would result in the most positive cumulative impacts to soil resources, reducing those described under Cumulative Impacts Common to All Alternatives.

Threatened/Endangered Plants, Sensitive Plants: Due to the marked reduction in the number of designated routes that fragment vegetative communities, this alternative would result in the greatest decrease to the negative cumulative impacts on Threatened/Endangered Plants, Sensitive Plants from that described under the Cumulative Impacts Common to All Alternatives.

Tribal Treaty Rights and Interests: Under Alternative 4, substantial tracts of public land would not be open to motorized travel, with large reductions in miles of designated roads and trails open to the general public. Cumulatively, this condition would be likely to benefit wildlife availability for hunting, reduce impacts to important vegetative resources, and with fewer motorized disturbances, allow tribal members seeking seclusion greater opportunities to practice

treaty rights activities. These affects on the resources would reduce the cumulative impacts described under the Cumulative Impacts Common to All Alternatives.

Vegetation: Due to the marked reduction in the number of designated routes that fragment vegetative communities, this alternative would result in the greatest decrease to the negative cumulative impacts on Vegetation from that described under the Cumulative Impacts Common to All Alternatives.

Water Quality: Due to the marked reduction in the number of designated routes that result in erosion and sediment input to streams, this alternative would result in the greatest decrease to the negative cumulative impacts on Water Quality from that described under the Cumulative Impacts Common to All Alternatives.

Wetlands and Riparian Zones: With a decrease of 13.2 miles in routes negatively impacting wetland/riparian areas, this alternative would result in the greatest decrease to the negative cumulative impacts on Wetlands and Riparian Zones from that described under the Cumulative Impacts Common to All Alternatives.

Wildlife, Threatened/Endangered Animals, Sensitive Animals, and Migratory Birds: Due to the marked reduction in the number of designated routes that result in habitat modification and fragmentation, this alternative would result in the greatest decrease to the negative cumulative impacts on wildlife from that described under the Cumulative Impacts Common to All Alternatives.

### **Summary**

No significant individual or cumulative impacts would be anticipated as a result of any of the alternatives described above.

### **CONSULTATION AND COORDINATION**

A summary description of the proposed project was made available to the public on the Idaho BLM's internet site in February 2010, at public meetings in Salmon and Tendoy, Idaho, which gives the public the opportunity to provide comments or consult on the action. A letter was also sent to the Shoshone-Bannock Tribes.

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## ATTACHMENTS

### Attachment 1: 2001 Lemhi Resource Management Plan Amendment, Pages 4-6

Sections 1 through 6 below replace existing off-highway vehicle use management described on pp. 14, 45, and 47 of the 1987 Lemhi RMP, and pp. 14 and 15 of the RNA/ACEC plan amendment (December 1987). Off-highway vehicle use designations are defined as follows:

**Closed** - Motorized vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted.

**Limited** - Motorized vehicle travel within specified areas and/or on designated routes, roads, vehicle ways, or trails is subject to restrictions. Those restrictions are listed in decisions 2, 3, and 5 below.

**Open** - Motorized vehicle travel is permitted year-long anywhere within an area designated as "open" to OHV use if the vehicle is operated responsibly.

1. Off-highway vehicle use designations are as follows (see Map 4) (acres and percentages are approximate):

"Closed":	17,140 acres	(3.5%)
"Limited":	476,248 acres	(96.5%)
"Open":	0 acres	(0 %)

Reassess OHV management throughout the Field Office area no later than 2007 to determine if changes in management would be appropriate to achieve the broadest range of use opportunities. During the assessment, consider the following: Need for access; recreation opportunities; public safety; use conflicts; ability to properly maintain roads; and resource concerns such as highly erodible or fragile soils, protection of cultural resources, historic sites/areas, sacred and traditional areas, visual resources, special status species habitat, water quality, wildlife habitat, threat of weed invasion, retention of wilderness characteristics, and wetland and riparian habitat. Any changes to an area's designation as "open," "limited," or "closed" would be implemented through a land use plan amendment.

2. Designate and manage OHV use within the Eighteenmile WSA as follows (see Maps 4 and 5): (a) Designate the suitable portion of the Eighteenmile WSA (about 14,796 acres) as "closed" to OHV use. (b) Designate the non-suitable portion of the Eighteenmile WSA (about 10,126 acres) as "limited," with OHV use limited to designated routes. (c) Temporary exceptions for OHV use in the suitable portion of the WSA and off of designated routes in the non-suitable portion of the WSA would be allowed in emergencies and search and rescue operations, for official purposes by the BLM and other Federal, State, and local agencies, and to build or maintain structures and installations, as specifically provided for in the Interim Management Policy for Lands Under Wilderness Review (see Appendix B (page 9) of this amendment). (d) OHV use on any portions of the

Eighteenmile WSA released by Congress from wilderness review in the future would be designated as “limited,” with OHV use limited to designated routes.

3. Except for within the Eighteenmile WSA, temporary exceptions to the OHV use limitations and closures listed in #4 and 5 below may be authorized for any military, fire, emergency, or law enforcement vehicle while it is being used for emergency purposes; any vehicle in official use; and any vehicle whose use is expressly authorized in writing by the authorized officer.

In areas designated “limited” to designated routes and OHV use areas or to existing roads, vehicle ways, and trails (see #5 below), some or all of the following off-road travel would be permitted, as displayed on Maps 4 through 10: (a) within 300 feet of designated routes or existing roads, vehicle ways, and trails for direct access to campsites, to retrieve downed big game, or to harvest forest products; (b) immediately adjacent to existing roads, vehicle ways, and trails for purposes such as parking, turning around, or passing another vehicle; (c) if the vehicle weighs 1,500 pounds or less gross vehicle weight and is traveling on at least six inches of continuous snow cover; (d) snowmobile use on groomed trails only.

4. The Trail Creek ACEC (236 acres) and the suitable portion of the Eighteenmile WSA (14,796 acres) would continue to be designated “closed” to OHV use. In addition, designate the following areas (about 2,108 acres) as “closed” to OHV use: the hillside behind the Chief Tendoy Cemetery and the Birch Creek Springs area (but continue to allow vehicle travel on State Highway 28 through the Birch Creek Springs area) (see Map 4).
5. OHV use on approximately 476,248 acres is designated “limited,” with the limitations as described in (5a) through (5e) below. Changes to OHV limitations within areas designated as “limited” (but that would not change the OHV designation from “limited” to either “open” or “closed”) may be initiated at any time through activity planning, with public, tribal, and agency involvement and appropriate environmental analysis.

(5a) OHV use in the following areas (about 73,863 acres) is limited to designated routes and OHV use areas (see Maps 4 through 10): the Lewis and Clark Trail SRMA, Chief Tendoy Cemetery, the non-suitable portion of the Eighteenmile WSA, the Continental Divide National Scenic Trail SRMA, Sevenmile ACEC, designated recreation sites, and the Hayden Creek/Basin Creek/Muddy Creek area. OHV use within the R&PP lease area would be limited to the designated routes and use areas shown on Map 7. Cross-country motorized travel would be permitted within the designated use area yearlong, unless access to the R&PP lease area is temporarily restricted due to soil moisture conditions (see OHV #5d below).

(5b) OHV use on approximately 402,385 acres is limited to the existing roads, vehicle ways, and trails visible on 1993-1994 aerial photos and/or 1992 digital orthophotos, as verified through on-the-ground field review (see Map 4). Vehicle travel on single-track vehicle ways is limited to two-wheeled vehicles and will not promote expansion of those ways into two-track routes.

- (5c) OHV use in the Agency/Pattee/Kenney Creek, Badger Springs Gulch, and Tower Creek areas (about 38,902 acres) is prohibited from December 16 through April 30 to address wildlife habitat concerns (see Maps 4, 6, and 7), with some exceptions for motorized vehicle use on the routes indicated below.

Agency/Pattee/Kenney Creek: The Agency Creek Road, Alkali Flat Road, about 4 miles of the Pattee Creek Road, and the Warm Springs Wood Road shall remain open to motorized use year-long, and the following route shall be designated as a snowmobile route: The Divide Road from Lemhi Pass south to the Copper Queen Road to the Agency Creek Road.

Tower Creek: The North Fork of Tower Creek Road, Tower Creek Road, and Kriley Gulch Road shall remain open to motorized use year-long.

From May 1 through December 15, OHV use in the Agency/Pattee/Kenney Creek, Badger Springs Gulch, and Tower Creek areas is limited to designated routes or existing roads, ways, and trails, as shown on Maps 4, 6, and 7.

- (5d) Within areas limited to designated routes and OHV use areas or to existing roads, ways, and trails, additional OHV use limitations are, or may be, implemented in the following areas to address erosion concerns:
- (1) Motorized access to and within the Lewis and Clark Trail SRMA may be limited seasonally, if soil moisture conditions indicate resource damage is likely.
  - (2) OHV use on existing roads, ways, and trails in the Henry Creek area (about 4,046 acres) is limited to vehicles 48 inches or narrower from April 11 through September 19. No motorized vehicle use is allowed from September 20 through April 10 (see Map 4).
  - (3) Motorized vehicle travel on some designated routes in the Hayden, Basin, and Muddy Creek drainages is prohibited from March 1 through June 15 (see Map 9).
- (5e) No vehicle travel is allowed on the following roads constructed for previous timber sales, unless specifically authorized by the BLM (see Map 4):

Baldy Basin Timber Sale Road  
Sawmill Canyon Timber Sale Road  
Birch Creek Timber Sale Road  
McDevitt Creek Timber Sale Road

6. Vehicle use authorization for newly constructed roads will be identified when the road construction proposal is developed and analyzed. Any vehicle use authorization will be consistent with the OHV designation for the project area.

## Attachment 2: Plant, Animal and Fish Species Lists

Grass and Grass-Like		
Common Name	Scientific Name	Status
Basin wildrye	<i>Leymus cinereus</i>	native
Blue grama	<i>Bouteloua gracilis</i>	BLM Type 3
Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	native
Bottle-brush squirreltail	<i>Sitanion hystrix</i>	native
Cheatgrass	<i>Bromus tectorum</i>	introduced, invasive
Idaho fescue	<i>Festuca idahoensis</i>	native
Indian ricegrass	<i>Achnatherum hymenoides</i>	native
Needle and thread	<i>Hesperostipa comata</i>	native
Pinegrass	<i>Calamagrostis rubescens</i>	native
Prairie Junegrass	<i>Koeleria macrantha</i>	native
Rush	<i>Juncus spp.</i>	native
Saline wildrye	<i>Leymus salinus</i>	native
Sandberg bluegrass	<i>Poa secunda</i>	native
Sedge	<i>Carex spp.</i>	native
Squirreltail	<i>Elymus elymoides</i>	native
Western wheatgrass	<i>Pascopyrum smithii</i>	native
Forbs		
Common Name	Scientific Name	Status
Biscuitroot	<i>Lomatium spp.</i>	native
Black henbane	<i>Hyoscyamus niger</i>	introduced, state noxious
Broadleaved (perennial) pepperweed	<i>Lepidium latifolium</i>	introduced, state noxious
Bull thistle	<i>Cirsium vulgare</i>	introduced, invasive
Butter and eggs; Yellow toadflax	<i>Linaria vulgaris</i>	introduced, invasive
Canada thistle	<i>Cirsium arvense</i>	introduced, state noxious
Challis crazyweed; Salmon River locoweed	<i>Oxytropis besseyi</i> var. <i>salmonensis</i>	BLM Type 3
Challis milkvetch	<i>Astragalus amblytropis</i>	BLM Type 3
Common yarrow	<i>Achillea millefolium</i>	native
Cordilleran phacelia; Silverleaf phacelia	<i>Phacelia hastata</i>	native
Cushion buckwheat	<i>Eriogonum ovalifolium</i>	native
Dalmatian toadflax	<i>Linaria dalmatica</i>	introduced, state noxious
Death camas	<i>Zigadenus spp.</i>	native
Douglas' dustymaiden	<i>Chaenactis douglasii</i>	native
Fernleaf biscuitroot	<i>Lomatium dissectum</i>	native
Field (perennial) sowthistle	<i>Sonchus arvensis</i>	introduced, state noxious
Field bindweed	<i>Convolvulus arvensis</i>	introduced, state noxious
Fleabane	<i>Erigeron spp.</i>	native
Flowery phlox	<i>Phlox multiflora</i>	native

Forbs		
Common Name	Scientific Name	Status
Foothills death camas	<i>Zigadenus paniculatus</i>	native
Franklin's sandwort	<i>Arenaria franklinii</i>	native
Gardencress pepperweed	<i>Lepidium sativum</i>	native
Granite prickly phlox	<i>Linanthus pungens</i>	native
Groundsel	<i>Senecio</i> spp.	native
Hearatleaf arnica	<i>Arnica cordifolia</i>	native
Herb sophia	<i>Descurainia sophia</i>	introduced, invasive
Hoary Alyssum	<i>Berteroa incana</i>	introduced, invasive
Hood's phlox; spiny phlox	<i>Phlox hoodii</i>	native
Houndstongue; Gypsyflower	<i>Cynoglossum officinale</i>	introduced, invasive
Idaho range lichen	<i>Xanthoparmelia idahoensis</i>	BLM Type 2
Indian paintbrush	<i>Castilleja</i> spp.	native
Japanese knotweed	<i>Polygonum cuspidatum</i>	introduced, invasive
King's sandwort	<i>Arenaria kingii</i>	native
Leafy spurge	<i>Euphorbia esula</i>	introduced, state noxious
Lemhi milkvetch	<i>Astragalus aquilonius</i>	BLM Type 2
Lemhi penstemon	<i>Penstemon lemhiensis</i>	BLM Type 3
Lesser rushy milkvetch	<i>Astragalus convallarius</i>	native
Lewis flax	<i>Linum lewisii</i>	native
Little larkspur	<i>Delphinium bicolor</i>	native
Longleaf phlox	<i>Phlox longifolia</i>	native
Low pussytoes	<i>Antennaria dimorpha</i>	native
Lupine	<i>Lupinus</i> spp.	native
MacBride cleomella	<i>Cleomella macbrideana</i>	native
Maiden blue eyed mary	<i>Collinsia parviflora</i>	native
Mariposa lily	<i>Calochortus</i> sp.	native
Milkvetch; Locoweed	<i>Astragalus</i> spp.	native
Mill Creek/Pink agoseris	<i>Agoseris lackschewitzii</i>	BLM type 4
Musk thistle; Nodding plumeless thistle	<i>Carduus nutans</i>	introduced, state noxious
Nailwort	<i>Paronychia</i> spp.	native
Nakedstem sunray	<i>Enceliopsis nudicaulis</i>	native
Nineleaf biscuitroot	<i>Lomatium triternatum</i>	native
Pale agoseris; Mountain dandelion	<i>Agoseris glauca</i>	native
Parsnipflower buckwheat	<i>Eriogonum heracleoides</i>	native
Penstemon	<i>Penstemon</i> spp.	native
Phlox	<i>Phlox</i> spp.	native
Plains springparsley	<i>Cymopterus acaulis</i>	native
Puncturevine	<i>Tribulus terrestris</i>	introduced, state noxious

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<b>Forbs</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Purple loosestrife	<i>Lythrum salicaria</i>	introduced, state noxious
Raceme pussytoes	<i>Antennaria racemosa</i>	native
Ross' avens	<i>Geum rossii</i>	native
Rosy pussytoes	<i>Antennaria rosea</i>	native
Royal penstemon	<i>Penstemon speciosus</i>	native
Rush skeletonweed; Hogbite	<i>Chondrilla juncea</i>	introduced, state noxious
Russian knapweed; Hardheads	<i>Acroptilon repens</i>	introduced, state noxious
Salmon twin bladderpod: Idaho twinpod	<i>Physaria didymocarpa</i> var. <i>lyrata</i>	BLM Type 2
Sandwort	<i>Arenaria</i> spp.	native
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	native
Scotch cottontistle	<i>Onopordum acanthium</i>	introduced, state noxious
Sego lily	<i>Calochortus nuttallii</i>	native
Shaggy fleabane	<i>Erigeron pumilus</i>	native
Sharpleaf penstemon	<i>Penstemon acuminatus</i> var. <i>latebracteatus</i>	native
Spotted knapweed	<i>Centaurea stoebe</i>	introduced, state noxious
Stemless mock goldenweed	<i>Stenotus acaulis</i>	native
Stream orchid; Giant helleborine	<i>Epipactis gigantea</i>	BLM Type 3
Sulphur-flower buckwheat	<i>Eriogonum umbellatum</i>	native
Tailcup lupine	<i>Lupinus caudatus</i>	native
Tapertip hawksbeard	<i>Crepis acuminata</i>	native
Tufted evening primrose	<i>Oenothera caespitosa</i>	native
Velvet lupine	<i>Lupinus leucophyllus</i>	native
Wallflower	<i>Erysimum</i> spp.	native
Western tansymustard	<i>Descurainia pinnata</i>	native
White eatonella	<i>Eatonella nivea</i>	BLM Type 4
Whitetop	<i>Cardaria draba</i>	introduced, state noxious
Wild onion; Tapertip onion	<i>Allium acuminatum</i>	native
Wooly princesplume	<i>Stanleya tomentosa</i>	native
Wyoming range lichen	<i>Xanthoparmelia wyomingensis</i>	native
Xanthoparmelia range lichen	<i>Xanthoparmelia norchlorochroa</i>	native
Yellow fritillary	<i>Fritillaria pudica</i>	native
<b>Shrubs and Sub-shrubs</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Antelope bitterbrush	<i>Purshia tridentata</i>	native
Basin big sagebrush	<i>Artemisia tridentata</i> spp. <i>tridentata</i>	native
Black sagebrush	<i>Artemisia nova</i>	native
Bog blueberry	<i>Vaccinium uliginosum</i>	native
Bud sagebrush	<i>Picrothamnus desertorum</i>	native

<b>Shrubs and Sub-shrubs</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Common snowberry	<i>Symphoricarpos albus</i>	native
Curl-leaf mountain mahogany	<i>Cercocarpus ledifolius</i>	native
Dwarf bilberry	<i>Vaccinium cespitosum</i>	native
Dwarf goldenbush	<i>Ericameria nana</i>	native
Fringed sagewort: Prarie sagewort	<i>Artemisia frigida</i>	native
Granite prickly phlox	<i>Linanthus pungens</i>	native
Greasewood	<i>Sarcobatus vermiculatus</i>	native
Green rabbitbrush	<i>Ericameria teretifolia</i>	native
Grey horsebrush; Spineless horsebrush	<i>Tetradymia canescens</i>	native
Horsebrush	<i>Tetradymia spp.</i>	native
Kinnikinnik	<i>Arctostaphylos uva-ursi</i>	native
Low sagebrush; Little sagebrush	<i>Artemisia arbuscula</i>	native
Mountain big sagebrush	<i>Artemisia tridentata ssp. vaseyana</i>	native
Mountain snowberry	<i>Symphoricarpos oreophilus</i>	native
Rabbitbrush	<i>Ericameria spp.</i>	native
Redosier dogwood	<i>Cornus sericea</i>	native
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	native
Saltbush	<i>Atriplex spp.</i>	native
Saltcedar	<i>Tamarix ramosissima</i>	introduced, invasive
Shadscale	<i>Atriplex confertifolia</i>	native
Spiny horsebrush; shortspine horsebrush	<i>Tetradymia spinescens</i>	native
Threetip sagebush	<i>Artemisia tripartita</i>	native
Winterfat	<i>Krascheninnikovia lanata</i>	native
Wyoming big sagebush	<i>Artemisia tridentata spp. wyomingensis</i>	native
<b>Trees</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Aspen	<i>Populus tremuloides</i>	native
Black cottonwood	<i>Populus balsamifera ssp. trichocarpa</i>	native
Douglas-fir	<i>Pseudotsuga menziesii</i>	native
Engelmann spruce	<i>Picea engelmannii</i>	native
Limber pine	<i>Pinus flexilis</i>	native
Lodgepole pine	<i>Pinus contorta</i>	native
Narrowleaf cottonwood	<i>Populus angustifolia</i>	native
Ponderosa pine	<i>Pinus ponderosa</i>	native
Subalpine fir	<i>Abies lasiocarpa</i>	native
Whitebark pine	<i>Pinus albicaulis</i>	native

Hitchcock and Cronquist 1973; USDA NRCS 2010

<b>Birds</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Bald eagle	<i>Haliaeetus leucocephalus</i>	ID BLM Sensitive
Black rosy-finch	<i>Leucosticte atrata</i>	No Special Status
Brewer's sparrow	<i>Spizella breweri</i>	ID BLM Sensitive
Calliope hummingbird	<i>Stellula calliope</i>	ID BLM Sensitive
Cassin's finch	<i>Carpodacus cassinii</i>	No Special Status
Cooper's hawks	<i>Accipiter cooperii</i>	No Special Status
Eared grebe	<i>Podiceps nigricollis</i>	No Special Status
Ferruginous hawk	<i>Buteo regalis</i>	ID BLM Sensitive
Flammulated owl	<i>Otus flammeolus</i>	ID BLM Sensitive
Golden eagle	<i>Aquila chrysaetos</i>	No Special Status
Greater sage-grouse	<i>Centrocercus urophasianus</i>	ESA Candidate Species
Green-tailed towhee	<i>Pipilo chlorurus</i>	No Special Status
Hammond's flycatcher	<i>Empidonax hammondi</i>	ID BLM Sensitive
Lewis's woodpecker	<i>Melanerpes lewis</i>	ID BLM Sensitive
Loggerhead shrike	<i>Lanius excubitor</i>	ID BLM Sensitive
Long-billed curlew	<i>Numenius americanus</i>	No Special Status
Northern goshawk	<i>Accipiter gentilis</i>	ID BLM Sensitive
Northern harrier	<i>Circus cyaneus</i>	No Special Status
Olive-sided flycatcher	<i>Contopus cooperi</i>	ID BLM Sensitive
Peregrine falcon	<i>Falco peregrinus</i>	ID BLM Sensitive
Prairie falcon	<i>Falco mexicanus</i>	ID BLM Sensitive
Red-tailed hawk	<i>Buteo jamaicensis</i>	No Special Status
Sage sparrow	<i>Amphispiza belli</i>	ID BLM Sensitive
Sage thrasher	<i>Oreoscoptes montanus</i>	No Special Status
Sharp-shinned hawk	<i>Accipiter striatus</i>	No Special Status
Swainson's hawk	<i>Buteo swainsoni</i>	No Special Status
Williamson's sapsucker	<i>Sphyrapicus thyroideus</i>	ID BLM Sensitive
Willow flycatcher	<i>Empidonax traillii</i>	ID BLM Sensitive
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	ESA Candidate Species
<b>Mammals</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Badger (American)	<i>Taxidea taxus</i>	No Special Status
Bobcat	<i>Lynx rufus</i>	No Special Status
Canada lynx	<i>Lynx canadensis</i>	ESA Threatened Species
Cottontail (mountain)	<i>Sylvilagus nuttallii</i>	No Special Status
Coyote	<i>Canus latrans</i>	No Special Status
Elk	<i>Cervus elaphus</i>	No Special Status

<b>Mammals</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Fisher	<i>Martes pennanti</i>	ID BLM Sensitive
Fox (red)	<i>Vulpes vulpes</i>	No Special Status
Gray wolf	<i>Canus lupus</i>	ID BLM Sensitive
Hare (snowshoe)	<i>Lepus americanus</i>	No Special Status
Moose	<i>Alces alces</i>	No Special Status
Mountain goat	<i>Oreamnos americanus</i>	No Special Status
Mule deer	<i>Odocoileus hemionus</i>	No Special Status
Pronghorn	<i>Antilocapra americana</i>	No Special Status
Pygmy rabbit	<i>Brachylagus idahoensis</i>	ID BLM Sensitive
Rabbits	<i>Lepus spp.</i>	No Special Status
Rocky Mountain bighorn sheep	<i>Ovis canadensis canadaensis</i>	No Special Status
Shrews	<i>Sorex spp.</i>	No Special Status
Townsend's big eared bat	<i>Corynorhinus townsendii</i>	ID BLM Sensitive
White-tailed deer	<i>Odocoileus virginianus</i>	No Special Status
Wolverine	<i>Gulo gulo</i>	ID BLM Sensitive
<b>Amphibians and Reptiles</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Common garter snake	<i>Thamnophis sirtalis</i>	ID BLM Sensitive
Gopher snake	<i>Pituophis melanoleucus</i>	No Special Status
Short-horned lizard	<i>Phrynosoma Douglasii</i>	No Special Status
Western rattlesnake	<i>Crotalus viridis</i>	No Special Status
Western toad	<i>Bufo boreas</i>	ID BLM Sensitive

<b>Fish</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>
Bull trout	<i>Salvelinus confluentus</i>	ESA Threatened
Eastern brook trout	<i>Salvelinus fontinalis</i>	Intorduced
Snake River steelhead trout	<i>Oncorhynchus mykiss</i>	ESA Threatened
Snake River spring/summer Chinook salmon	<i>Oncorhynchus tshawytscha</i>	ESA Threatened
Sockeye Salmon	<i>Oncorhynchus nerka</i>	ESA Endangered
Westslope cutthroat trout	<i>Oncorhynchus clarki lewisi</i>	ID BLM Sensitive
Redband/resident rainbow trout	<i>Oncorhynchus mykiss</i>	Intorduced
Mountain whitefish	<i>Prosopium williamsoni</i>	No Special Status
Various sculpin	<i>Cottus spp.</i>	No Special Status
Speckled dace	<i>Rhinichthys osculus</i>	No Special Status
Redside shiner	<i>Richardsonius balteatus</i>	No Special Status
Pacific lamprey	<i>Lampetra tridentata</i>	No Special Status
Snake River white sturgeon	<i>Acipenser transmontanus</i>	No Special Status

## **GLOSSARY OF TERMS AND ACRONYMS**

ACHP: Advisory Council on Historic Preservation

ACEC: Area of Critical Environmental Concern

ATV: All Terrain Vehicles. Per House (Idaho) Bill 204, an ATV is defined as any recreational vehicle with three (3) or more tires, under eight hundred fifty (850) pounds and forty-eight (48) inches or less in width, having a wheelbase of sixty-one (61) inches, traveling on low pressure tires of ten (10) psi or less.

BLM: Bureau of Land Management, an agency of the U.S. Department of the Interior.

BMP: Best Management Practices

SFO: Salmon Field Office, a unit of the BLM's Idaho Falls District.

CTMP/TMP: Comprehensive Travel Management Plan, Travel Management Plan

CWMA: Cooperative Weed Management Area

Discovery Hills Recreation Area (DHRA)

ESA: Endangered Species Act of 1974, as Amended

IDFG: Idaho Department of Fish & Game

IDEQ: Idaho Department of Environmental Quality

IDPR: Idaho Department of Parks and Recreation

Motorcycle/Motorbike: per House (Idaho) Bill 204, a Motorbike is defined as any self-propelled two (2) wheeled motorcycle or motor-driven cycle, excluding tractor, designed for or capable of traveling off developed roadways and highways and also referred to as trailbikes, enduro bikes, trials bikes, motocross bikes or dual purpose motorcycles.

NHPA: National Historic Preservation Act

NOAA: National Oceanic and Atmospheric Administration

NMFS: National Marine Fisheries Service

NRHP: National Register of Historic Places

OHV: Off Highway Vehicle (previously called ORV, Off Road Vehicle). Defined by the state of Idaho as: Any motorized vehicle capable of, or designated for travel on or immediately over land, water, or other natural terrain, excluding: 1) any non-amphibious registered motorboat; 2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; 3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; 4) vehicles in official use; 5) any combat or combat support vehicle when used for national defense.

Open Area: An area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in 43 CFR 8341 and 8342.

PFC: Proper Functioning Condition

Route: Generic term referring to any combination of roads, primitive roads, and trails.

RMP: Resource Management Plan

RPP: Recreation and Public Purposes Act

ROD: Record of Decision

ROW: Right of Way

SHPO: State Historic Preservation Officer (or Office)

SMP: Sacajawea Motorsports Park (Lemhi County RPP Lease)

SRMA: Special Recreation Management Area

SSS: Special Status Species

TES: Threatened, Endangered, or Sensitive (species)

TMDL: Total Maximum Daily Load

USFS: United States Forest Service, an agency of the U.S. Department of Agriculture

VRM: Visual Resource Management

# MAPS

**Map 1: Salmon Field Office, North Travel Planning Area**

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**Map 2: Alternative 1 - Existing Management**

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**Map 3: Alternative 2**

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**Map 4: Alternative 3**

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**Map 5: Alternative 4 - Minimum Access**

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**Map 6: Re-route #1**  
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**Map 7: Re-route #2**

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**Map 8: Re-route #3**

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**Map 9: Re-route #4**

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**Map 10: Sevenmile ACEC**

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**Map 11: Special Recreation Management Areas**

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**Map 12: Easements**

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**Map 13: Cumulative Impact Assessment Area**

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