

The BLM Mission

The Bureau of Land Management sustains the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations.

Cover Photos

BLM photos of travel and transportation-related activities on BLM-managed public lands in Alaska.

Author

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BLM Publications

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<http://www.blm.gov/ak/st/en/prog/akcttm.html>

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United States Department of the Interior

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Dear Trail User:

Welcome to BLM-Alaska's *Travel Management Guide*.

Managing a sustainable travel and transportation system in Alaska presents many unique challenges. This document provides consistent statewide guidelines for planning and implementing comprehensive travel and transportation management policies and procedures for the myriad of users who enjoy BLM-managed public lands for recreation and depend on them for subsistence harvesting and economic development.

As communities and populations grow, demands for motorized trail-related recreation and public land access by road, primitive roads and trails are increasing. This guide addresses resource and recreation values, construction and maintenance needs for access to and across public lands, and the closing of routes that are no longer needed or authorized.

For additional information on local travel and transportation systems, please contact any of the BLM-Alaska field offices in Anchorage, Glennallen, or Fairbanks, or visit our Web site at <http://www.blm.gov/ak>. The BLM welcomes your comments and ideas for improving the management of trails and transportation routes on BLM-managed public lands in Alaska.

Sincerely,

Thomas P. Lonnie
State Director

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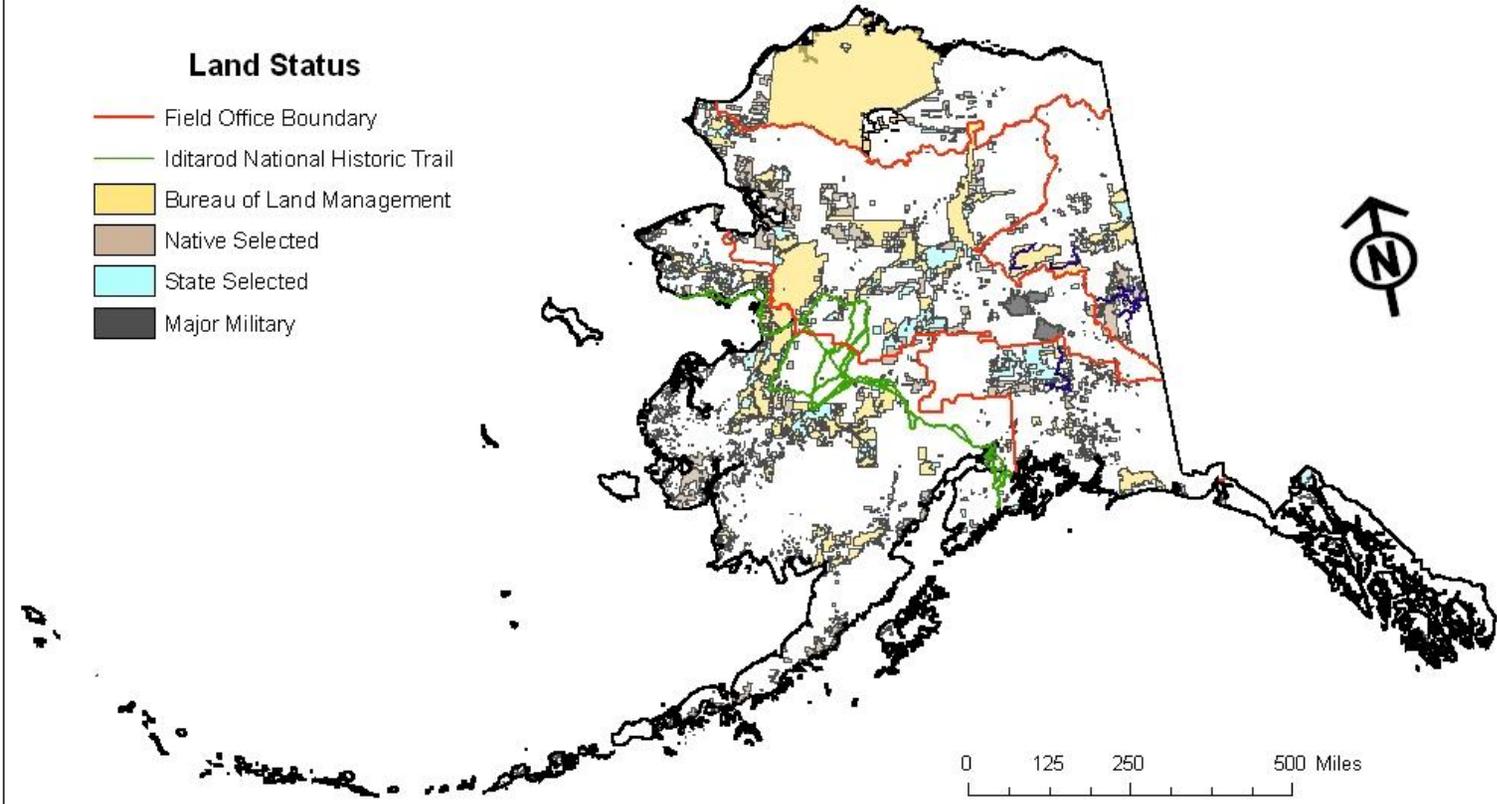
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Acronyms

4WD	Four-Wheel Drive
ACEC	Area of Critical Environmental Concern
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ATV	All-Terrain Vehicle
BLM	Bureau of Land Management
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CTTM	Comprehensive Travel and Transportation Management
EA	Environmental Assessment
EIS	Environmental Impact Statement
ERMA	Extensive Recreation Management Area
FAMS	Facility Asset Management System
GIS	Geographic Information System
GPS	Global Positioning System
IBLA	Interior Board of Land Appeals
LUP	Land Use Plan
NEPA	National Environmental Policy Act
NPS	National Park Service
OHV	Off-Highway Vehicle
RAC	Resource Advisory Council
RMP	Resource Management Plan
RNA	Research Natural Area
ROS	Recreation Opportunity Spectrum
ROD	Record of Decision
ROW	Right-of-way
SRMA	Special Recreation Management Area
SRP	Special Recreation Permits
TMA	Travel Management Area
TMO	Trail Management Objective
TMP	Travel Management Plan
UTV	Utility Type/Terrain Vehicle (side-by-side)
VRM	Visual Resource Management
WSA	Wilderness Study Area

BLM Managed Lands in Alaska

- Land Status**
- Field Office Boundary
 - Iditarod National Historic Trail
 - Bureau of Land Management
 - Native Selected
 - State Selected
 - Major Military



Introduction

Community and population growth in Alaska has increased the demand for access to public lands for a wide variety of reasons, such as administrative, recreation, authorized, and subsistence use. This includes access to administrative sites, development of resources, connecting transportation infrastructure, recreation, and subsistence use as specified in the Alaska National Interest Lands Conservation Act (see Appendix B).

Historically, overland travel has been limited by wet and boggy conditions during the summer and by extreme cold and snow conditions in winter. Trail users usually followed old existing mining and hunting routes. However, motorized cross-country travel and the proliferation of new routes have increased substantially in recent years due primarily to improvements in off-highway vehicle (OHV) technology and the availability of OHVs. The effects of this increased use are especially evident on public lands located near communities and along the road network, where increased recreational use and route proliferation have caused soil erosion, damage to wetlands and riparian areas, impacts to cultural and historic sites, the spread of invasive weeds, and impacts to wildlife and subsistence resources.

Travel management planning is a comprehensive process that addresses administrative and recreation access, commercial and permitted access, and access for subsistence activities and inter-village travel. Travel management planning helps identify and prioritize construction and maintenance needs of developed roads, primitive roads, and trails that provide access to and across public lands, including the closing of routes that are no longer needed or authorized.

Travel Management issues need to be considered sequentially at several levels:

1. Land Use Planning – Resource Management Plans
2. Activity or Implementation-level Plans – Travel Management Plans
3. Plan Implementation – Project Plans and on-the-ground actions

Travel management planning should be used to achieve desired future conditions and resource management objectives established through the land use planning process. Travel Management Plans (TMPs) should promote access routes that are sustainable and complement resource management goals. In many areas, route density can be reduced while maintaining or improving access and enhancing resources and user experiences. The Bureau of Land Management's (BLM) National OHV Management Strategy¹ and program guidance emphasizes that Travel Management should be broad in scope and incorporate all aspects of transportation and access management.

Travel Management should address the following major elements:

- OHV-area designations
- Travel Management Area delineation

¹ BLM National Management Strategy for Motorized OHV Use on Public Lands, 2001

- Route inventory
- Land ownership
- Management compatibility
- Joint management opportunities
- Route selection criteria and identification
- Condition assessment of routes
- Area and route designation signing
- Transportation network construction and maintenance needs
- Route closure and restoration of redundant routes
- Transportation network-related facility needs
- Education and outreach
- Easement acquisition
- Law enforcement
- Monitoring use

BLM transportation components are defined as:

Road: A linear route 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 Road: A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not formally meet any BLM road design standards.

Trail: A linear route managed for human-powered, stock, or off-road vehicle forms of transportation or for historic or heritage values. Trails are not generally managed for use by four-wheel-drive or high-clearance vehicles.

Routes identified for long-term BLM management should be considered for entry into the Bureau's Facility Asset Management System (FAMS) and BLM-Alaska's Transportation Plan. The National OHV Management Strategy and national program guidance identify travel management as an interdisciplinary and collaborative effort among programs to develop best management practices for travel management.

Travel Management in Alaska should be:

- **Comprehensive:** Managers need to look at more than just recreational use of OHVs and should consider all motorized, non-motorized, mechanized, and animal-assisted modes of travel that occur on public lands.
- **Multifunctional:** An interdisciplinary approach to managing travel and related activities is essential. Recreation (1220) cannot accomplish this task alone. Establish an interdisciplinary team to review travel management and resource issues and address funding sources and challenges.

- **Collaborative:** Travel plans should be a collaborative-, community-, and industry-based process, using input from the public as much as possible during the development process. BLM travel plans should be collaborative with the State of Alaska, Native corporations, and other public land managers of adjacent lands to avoid or resolve resource and management conflicts.
- **Outcome and Benefits Based:** Design transportation networks to provide public access while balancing user satisfaction and the Recreation Opportunity Spectrum setting.
- **Implemented:** Travel management implementation should use an approach that provides clear direction for access to recreation opportunities while ensuring public land health, in-holder access, public access to easements, permittee access, and appropriate and reasonable access to subsistence resources. This implementation includes signs, maps, education, maintenance, construction, reconstruction and rehabilitation, route obliteration, field presence, law enforcement, and monitoring.
- **Managed Cooperatively:** Travel management implementation should be developed with partnerships in mind. Where site-specific OHV recreation occurs, a shared management approach should be used whenever possible to meet the needs of management goals. Partnerships with the state, boroughs, municipalities, local governments, and user groups should be used as much as possible to meet travel management goals.

The BLM, as designated by the Secretary of the Interior, permits snowmobiles, motorboats, and other means of surface transportation traditionally used on public lands for appropriate subsistence activities by local residents as defined by Section 811(b) of the Alaska National Interest Lands Conservation Act (see Appendix B). The use of OHVs for subsistence activities is fundamentally different from the use of OHVs for recreational activities, and the BLM management of this use is guided by ANILCA Section 811. The Federal Land Policy and Management Act, Section 302(b), gives broad authority to the Secretary of the Interior to authorize uses of public lands through a variety of instruments. Therefore, the BLM authorizes the use of snowmobiles, motorboats, and other means of surface transportation for subsistence activities on BLM-managed public lands, unless specified otherwise or such use is excluded in appropriate regulations by the Authorized Officer.

Purpose

This guide is intended to complement and carry forward the Bureau's national strategies, and encourage BLM district and field offices to manage access to, and travel on, public lands in a comprehensive manner. It includes national direction and guidance to assist field staff with administrative, planning, and operating decisions. Staff should use this information and guidance as a tool for developing and implementing plan decisions for travel management.

Additionally, federal legislation such as the Alaska Statehood Act and the Alaska Native Claims Settlement Act direct the BLM to convey land titles from federal management to

the State of Alaska, Native regional and village corporations, and other private ownership. Different land management objectives and regulations put millions of acres of land under BLM interim management until conveyance is complete. This guide addresses some of these issues, but a wide range of options are available to each BLM manager, making effective communication with the State of Alaska and Native corporations imperative to managing travel on BLM-managed public lands.

Background

In the early 1980s, in response to Presidential Executive Orders², the BLM began designating all of the public lands under its administration into one of three Off-Highway Vehicle (OHV) designation categories: Open, Limited, or Closed to motorized activities (43 CFR 8340). As of 2009, the BLM manages approximately 80 million acres of public land in Alaska. Forty-one percent are undesignated for motorized use, 59 percent are designated as Limited to OHV use, and less than 1 percent is designated as either Open or Closed to all motorized activities³. These numbers may change as State and Native lands entitlements are met.

The 1980 Alaska National Interest Lands Conservation Act (ANILCA) also includes specific access provisions that can play an integral role in Travel management planning decisions in Alaska. Among others, ANILCA Section 811(a) ensures that rural residents shall have reasonable access to subsistence resources, and 811(b) provides for the appropriate use of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation. On certain BLM lands (currently the Steese National Conservation Area, White Mountains National Recreation Area, the Iditarod National Historic Trail, and all wild and scenic river corridors), ANILCA Section 1110(a) specifically authorizes the use of snowmachines, motorboats, airplanes, and non-motorized surface transportation methods for traditional activities and for travel to and from villages and homesites, subject to reasonable regulation; (b) assures inholders adequate and feasible access for economic and other purposes, subject to reasonable regulation. Inholder access on general BLM land is addressed in ANILCA 1323(b) (See Appendix B).

On a national level, and in response to increasing demand for recreational trails on the public lands it manages, the BLM first developed a national OHV management strategy and then a National Mountain Bicycling Strategic Action Plan. A national Non-Motorized/Non-Mechanized management strategy may also be written in the future. These strategies emphasize that the BLM should be proactive in seeking Travel Management solutions that conserve natural resources while providing for appropriate access to public lands.

In May 2003, the BLM's Executive Leadership Team approved the Bureau's national publication, *The BLM's Priorities for Recreation and Visitor Services* (the "Purple

² Executive Orders 11644, use of off-road vehicles on public lands, and 11989, amends E.O. 11644 to designation of off-road vehicle use areas.

³ Alaska OHV designation data from BLM Recreation Management Information System, May 2008

Book"). This guidance was tiered from the first recreation goal in the Department of the Interior's Strategic Plan, to "Establish a comprehensive approach to travel planning and management."

This comprehensive approach is described in five milestones:

1. Address comprehensive travel management through land use plans to improve access, opportunities, and experiences.
2. Improve on-the-ground travel management operations and maintenance to sustain opportunities and experiences, access, safety, and resource conservation.
3. Improve signing, mapping, travel information, and education.
4. Implement travel management through national motorized, mechanized, and non-motorized recreation strategies, and
5. Expand transportation/travel management partnerships and funding sources.

Since 2000, the Bureau has issued many travel and transportation management Instruction Memorandums and Information Bulletins that provide program guidance and direction on how to incorporate and implement comprehensive travel and transportation management planning. A list of Instruction Memorandums and Information Bulletins that provide program guidance can be found in Appendix E. The BLM is developing a Comprehensive Travel and Transportation Planning Manual and Handbook that will consolidate policy, rules, and regulations.

Vision Statement

The vision for the Travel Management program in Alaska is to provide sustainable access to public lands for a wide variety of activities while conserving natural resources.

How to Use this Document

This document is intended for use as a tool for Travel management planning and implementation efforts associated with travel management. It outlines travel management guidance for making resource management plan and TMP decisions. Under each section outlined in this strategy, the reader will find items related to on-the-ground work that needs to be accomplished, along with alternate sources of funding, and/or, partnership and volunteer support. The Implementation chapter establishes minimum requirements for some actions, and establishes a range of options intended to give flexibility to each district or field office.

Sections of this document can be used as a checklist of actions that will lead to the implementation of comprehensive travel and transportation management.

Chapter One discusses integrating Comprehensive Travel and Transportation Management into land use planning and developing implementation plans.

Chapter Two identifies actions that need to be taken to implement Comprehensive Travel and Transportation Management decisions.

Chapter Three identifies considerations and methods to conduct travel management monitoring.

Chapter One

PLANNING

1.1 Resource Management Plans (RMPs)

The Bureau of Land Management uses RMPs to document land use planning decisions related to resource use and land use allocations, including travel management. RMP travel management decisions will:

1. Designate off-highway vehicle (OHV) management areas as Open, Limited, or Closed to motorized vehicle use.
2. Identify any existing or proposed Congressionally Designated Routes.
3. Identify any existing or proposed Administratively Designated Routes.
4. Address any temporary limitations or closures of public land for OHV use.

The BLM's national program guidance on integrating Comprehensive Travel and Transportation Management (CTTM) into land use planning and RMPs is described in Instruction Memorandum WO-IM-2008-014 (http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/20080/im_2008-014.html) and attachments. In addition to national guidance, Alaska has specific Congressional direction through ANCSA and ANILCA⁴ that relates to Travel Management (for example, ANCSA Section 17(b) easements and ANILCA provisions for access). The CTTM planning process, like other planning processes, identifies the need to use an interdisciplinary team approach with specialists from programs affected by travel and transportation issues, such as:

- Cultural Resources
- Energy and Minerals
- Engineering
- GIS and Mapping
- Recreation
- Renewable Resource Programs (wildlife, soils, air quality, etc.)
- Lands
- Law Enforcement
- Subsistence

To meet land use planning and travel management requirements, the Interdisciplinary Team should identify:

1. Planning issues and concerns, and planning criteria related to travel management.
2. Existing transportation network, including subsistence access.
3. Criteria for travel management data collection and route evaluation methods.
4. A process for route inventory and collection of transportation data.
5. Users, stakeholders, and partners for public involvement.

⁴ The Alaska Native Claims Settlement Act and the Alaska National Interest Lands Conservation Act (see Appendix B).

1.1.1 Designating Off-Highway Vehicle (OHV) Areas

Areas must be designated as Open, Limited, or Closed to motorized vehicles in a resource management plan using criteria provided in 43 CFR 8340.0-5 (f), (g) and (h) and 43 CFR 8342.1-3, Designation Criteria. OHV-area designations can vary within the planning area, but should consider land use plan goals and objectives for that area. OHV area designations apply to all motorized activities, but are subject to other uses authorized by the Authorizing Officer.

The BLM may designate Open areas where unlimited or unregulated “cross-country” travel does not pose concerns about resource damage and where OHV impacts can be mitigated or minimized to acceptable levels. However, based on the current significant damage from OHV activities and increased user-created routes, allowing large areas to remain open to summer cross-country travel may no longer be a viable management strategy.

In recently completed RMPs, the BLM typically designated most of the planning areas as Limited, which includes limitations for vehicle weights and seasons of use. At a minimum, the Limited area designation will limit summer motorized vehicle use to existing roads and trails, and identify allowable modes of travel. In areas that have sensitive resources susceptible to damage, a designated travel or transportation network would be appropriate to protect resource values from degradation, that is, travel can only occur on designated routes. In areas that can support motorized cross-country travel, it may be appropriate to designate additional limitations for use of motorized vehicles, for example, limited by season, size, weight, or vehicle type, to protect resources or any other limitations that manage travel at an acceptable level.

Where resources may be significantly damaged and need protection, or where user conflicts occur, an area may be designated as Closed to motorized vehicles to protect these values and manage conflicts. Work with your stakeholder groups to ensure that the reasons for the closure are clearly stated and understood, and document your decision process. In some situations, it may be appropriate to enter into a formal agreement with other governmental agencies and otherwise solicit public input through public meetings in accordance with Sunshine laws and the Federal Advisory Committee Act.

ANILCA allows for the appropriate use of snowmobiles, motorboats, and other means of surface transportation for subsistence purposes on federal public lands in Alaska. In addition, RMPs should address other non-recreational motorized access and identify other ANILCA exceptions or variations of allowed motorized uses beyond what casual or recreational users will be permitted to do. For example, the authorizing officer may allow specific groups, such as disabled or subsistence hunters, to drive motorized vehicles off designated trails to hunt or retrieve game, when general hunters and casual users are prohibited from driving motorized vehicles off the trail.

1.1.2 Travel Management Components

Besides completing OHV area designations, the BLM encourages implementing travel management decisions as part of the RMP process. In some cases, field offices may not have all the detailed information available to incorporate into the RMP, and therefore a TMP will need to be developed after the RMP is completed. The BLM Land Use Planning Handbook allows TMPs to be completed within five years of the signing of the Record of Decision (ROD) for the RMP.

At the implementation phase of the RMP, a process must be established that identifies specific areas, roads, primitive roads and trails that will be available for public and administrative use, and specify limitations placed on use. Products from this process will include:

1. Criteria to select or reject specific roads, primitive roads, and trails in the final travel management network; to add new roads, primitive roads or trails; and to specify limitations.
2. A map of roads, primitive roads and trails for all travel modes and uses, including motorized, nonmotorized, and mechanized travel.
3. Definitions and additional limitations for specific roads, primitive roads and trails (defined in 43 CFR §8340.0-5(g)).
4. Guidelines for managing, monitoring, and maintaining the network.
5. Indicators to guide future plan maintenance, amendments, or revisions related to the travel management network.
6. Needed easements and rights-of-ways (to be issued to the BLM or others) to maintain the existing road and trail network providing public land access.
7. Provisions for route decommission and rehabilitation of closed or illegal routes.

In BLM-managed wilderness study areas (WSAs) in Alaska, established uses may be permitted to continue subject to such restrictions that the Secretary [of the Interior] deems desirable and are described in Section 1004 of ANILCA. In these cases, final route classification is delayed until Congressional action is taken or a land use plan decision is made to close those routes to motorized and mechanized use. Primitive roads and motorized/mechanized trails shall not be designated within a WSA or other lands that have been identified in the land use plan for the protection of their wilderness characteristics. Any linear transportation feature located within areas that have been identified as WSAs, and/or those lands outside of WSAs with wilderness characteristics, will be identified in a transportation inventory as a “route.” Except for non-motorized and non-mechanized trails, these routes will not be classified as a transportation asset and will not be entered into the Facility Asset Management System (FAMS) unless one of the following conditions is met:

- Congress designates the area as Wilderness and the routes are designated as non-motorized and non-mechanized trails only, or
- Congress releases the WSA from Wilderness consideration and the routes are designated, or

- Wilderness characteristics have been identified through the land use planning process and classifying the route does not affect the option to protect these wilderness characteristics, or
- An RMP decision is made to not protect the wilderness characteristics of an area outside a WSA and the routes are designated.

If the final travel and transportation network is to be deferred in the RMP, then the RMP documents the decision-making process used to develop the initial network, provides the basis for future management decisions, and helps set guidelines for making transportation network adjustments throughout the life of the plan. The following tasks should be completed in the RMP for each planning area or travel management area (TMA):

1. Produce a map of the known existing network of existing roads and trails, including modes of travel;
2. Define short-term management guidance for road and trail access and activities in areas or sub-areas not completed;
3. Identify any uncompleted travel and transportation tasks;
4. Outline additional data needs and a strategy to collect needed information;
5. Provide a clear planning sequence for subsequent road and trail selection and identification, including public process (focusing on user groups and stakeholders), criteria, and constraints;
6. Provide a schedule to complete the area or sub-area road and trail selection process within five years;
7. Identify any easements and rights-of-way (to be issued to the BLM or others) needed to maintain the preliminary or existing road and trail network; and,
8. Identify current and historic subsistence use patterns, including locations and types of activities, and methods of access.

If the decision on delineating travel and transportation networks is deferred in the land use plan to the implementation phase, the work should be completed within five years of the signing of the Record of Decision (ROD) for the RMP.

1.1.3 Delineating Travel Management Areas

RMPs may delineate travel management areas (polygons) and identify which modes of access and travel are acceptable for each travel management area. These maps should include routes:

- over-land
- over-water
- over-snow
- fly-in access (remote airstrips and floatplanes).

In developing TMAs, the interdisciplinary team should consider the following:

- consistency with all resource program goals and objectives;
- primary travelers in the TMA;
- objectives for allowing travel in the TMA;

- setting characteristics that are to be maintained (including Recreation Opportunity Spectrum (ROS) and Visual Resource Management (VRM) classifications); and
- primary means of travel allowed to accomplish the objectives and to maintain the setting characteristics.

1.1.4 Travel Management Plans

Travel management may be included as part of the RMP or developed as a stand-alone document tiered from the RMP. If a TMP is developed after the RMP is signed, then the TMP must stay within the parameters of the allocation decisions in the RMP. TMPs should be developed comprehensively using an interdisciplinary team to address all resource-related transportation uses, such as administrative, recreation, authorized, industrial, and subsistence use; and associated modes of travel including motorized, mechanized, non-motorized and animal-powered transportation. (Table 1)

Table 1. Examples of Access Considerations for Travel Management Plans

Access Needs	Non-Motorized	Motorized	Mechanized	Animal-Powered	Water
Recreation and Casual Use (includes inter-village travel)	Hiking Running Skiing	Highway Vehicles 4WD ATVs/UTVs Motorcycles Snowmobiles Aircraft	Bicycles Wheel Chairs Game Carts	Horses Dog Sled Skijoring	Canoeing Rafting Kayaking Motor Boats
Administrative Activities	Hiking	Highway Vehicles 4WD ATVs/UTVs Snowmobiles Aircraft	Wheel Chairs		Canoeing Rafting Motor Boats
Authorized and Commercial (guides, transporters, ROWs, etc.)	Hiking Skiing	Highway Vehicles 4WD ATVs/UTVs Motorcycles Snowmobiles Aircraft	Bicycles Game Carts Wheel Chairs	Horses Dog Sled Skijoring	Canoeing Rafting Kayaking Motor Boats
Industrial (energy, mining, etc.)	Hiking	Highway Vehicles Overland Moves Aircraft	Wheel Chairs		Motor Boats
Subsistence	Hiking	Highway Vehicles 4WD ATVs/UTVs Motorcycles Snowmobiles Airplane	Game Carts Wheel Chairs	Horses Dog Sled	Canoeing Rafting Motor Boats



Consider a wide range of access needs.

TMPs will incorporate existing BLM Transportation Plans developed under the BLM Manual 9110-1 guidance and existing BLM-managed transportation assets identified in the Bureau's FAMS, including existing State and local transportation infrastructure, and planned road and trail networks. It is also important to consider disability and accessibility needs when planning transportation features, especially those associated with visitor centers, campgrounds and other facilities, such as developed interpretation and information waysides.

TMPs should address regional transportation issues, prioritizing areas or regions, such as Special Recreation Management Areas (SRMAs) and Travel Management Areas (TMAs), to address local travel issues and problems. TMPs will establish criteria to make route selections for inclusion into the BLM transportation network and establish a process to close and decommission routes that are repetitive or unnecessary. TMPs will identify shifts in types of uses, if any, such as user displacement as a result of changes in OHV designations or route closures.

When completing the TMP, establish a process that identifies specific areas, roads, primitive roads and trails that will be available for public and administrative use, and specify any limitations placed on use. This process will include the same information as if the TMP were completed as part of the RMP, including:

1. Criteria to select or reject specific roads, primitive roads, and trails in the final travel management network; to add new roads, primitive roads or trails; and to specify limitations.
2. A map of roads, primitive roads and trails for all travel modes and uses, including motorized, nonmotorized, and mechanized travel.
3. Definitions and additional limitations for specific roads, primitive roads and trails (defined in 43 CFR §8340.0-5(g)).
4. Guidelines for managing, monitoring, and maintaining the network.
5. Indicators to guide future plan maintenance, amendments, or revisions related to the travel management network.
6. Needed easements and rights-of-ways (to be issued to the BLM or others) to maintain the existing road and trail network providing public land access.
7. Provisions for route decommission and rehabilitation of closed or illegal routes.

In Alaska WSAs, established uses may be permitted to continue subject to such restrictions that the Secretary deems desirable and described in Section 1004 of ANILCA. In these cases, final route classification is delayed until Congressional action is taken or a land use plan decision is made to close those routes to motorized and mechanized use. Primitive roads and motorized/mechanized trails shall not be designated within a WSA or other lands that have been identified in the land use plan for the protection of their wilderness characteristics. Any linear transportation feature located within areas that have been identified as WSAs, and/or those lands outside of WSAs with wilderness characteristics, will be identified in a transportation inventory as a “route.” Except for non-motorized and non-mechanized trails, these routes will not be classified as a transportation asset and will not be entered into the FAMS unless one of the following conditions is met:

- Congress designates the area as Wilderness and the routes are designated as non-motorized and non-mechanized trails only, or
- Congress releases the WSA from Wilderness consideration and the routes are designated, or
- Wilderness characteristics have been identified through the land use planning process and classifying the route does not affect the option to protect these wilderness characteristics, or
- An RMP decision is made to not protect the wilderness characteristics of an area outside a WSA and the routes are designated.

TMPs should identify resource issues and concerns associated with travel-related activities, and prioritize resource projects to address significant resource degradation and prevent further damage from occurring. Implementation and funding priority should be considered for projects that correct a problem or prevent resource damage, or enhance the transportation network, for example:

- Restoring wetlands
- Stabilizing stream banks
- Rehabilitating riparian areas
- Reducing redundant routes
- Providing a sustainable transportation network
- Achieving compatibility with adjoining landowners
- Providing reasonable access to subsistence resources



Example of trail restoration.

Table 2. Summary of Travel Management Actions:

PLANNING ACTIONS	IMPLEMENTATION ACTIONS
Seek public involvement throughout the planning process.	Involve users, stakeholders and the public to identify benefits and outcomes. Where appropriate, address the following: <ul style="list-style-type: none"> • Subsistence uses (including hunting, fishing, trapping, berry picking, gathering and cutting firewood and other plant materials) • Traditional modes of access for these subsistence activities • Routes and areas used to access these subsistence resources
RMP will designate areas as Open, Limited, or Closed to OHV activities. For areas designated as Limited, identify what uses are allowed and prohibited.	Sign area boundaries and access points with OHV designations and allowable uses. Sign designated routes with allowable and prohibited uses.
Establish an interdisciplinary team to identify the resources affected by travel management decisions.	Use an interdisciplinary approach to resolving resource and travel management conflicts.
If needed, delineate Travel Management Areas (polygons) in RMP. Identify primary users, travel objectives, setting characteristics, allowable modes of travel.	Complete Travel Management Plans within 5 years of signing the Record of Decision for the RMP.
Conduct an inventory of existing roads, primitive roads, trails, and related facilities. Consider all modes of travel, including motorized, mechanized, non-motorized and animal-powered transportation including aircraft and boating.	Publish maps identifying route and area designations and allowable uses. Provide information through outreach programs and at access points.
Establish selection criteria for determining which routes will be BLM-managed including any limitations, and a process for closing any routes not included in the BLM's transportation network.	Use route selection criteria to identify BLM managed routes to be entered into FAMS.
Identify the desired transportation network of roads, primitive roads and trails to be managed by the BLM, including ANILCA access needs.	Manage BLM transportation network and related facilities including acquisition, construction, maintenance, and obliteration. Develop travel regulations. Address ANILCA access.
Indicate changes in status of existing routes and areas. Identify any routes that will have changes to their current use, for example, limiting vehicle types, season of use, or closing a route.	Conduct condition assessments of BLM transportation network determined through RMP and TMP.
Identify any legal access or easement acquisition needs.	Pursue acquisition of legal access across private lands from "willing-sellers."
Develop a travel management sign plan to provide consistent OHV area boundary and route signing.	Install and maintain area boundary and route sign standards to identify the OHV area and route designations.

1.2 Route Inventory Options

The primary feature of a TMP is a baseline inventory of existing roads, primitive roads and trails on BLM-managed public lands. In most instances, the BLM has inherited historic roads used for mining, hunting and subsistence access that are continuing to be used for general access to public lands. For effective travel management planning, **a complete baseline inventory of the existing transportation features is required.**

This inventory must include maps as well as information, such as types of use and modes of travel on the current transportation network, and authorized uses and general characteristics of each route/trail or motorized area. The BLM must have enough information about these routes to evaluate the social and environmental impacts of adding or deleting them from the BLM transportation network.

Collecting information on user-created routes will (1) provide key information for assessing developed roads, primitive roads, trails, and motorized areas; (2) facilitate public involvement, review, and communication; and (3) provide the basis for travel analysis and environmental analysis (especially for cumulative effects).

Travel analysis and travel management decisions, such as route selection or closure, will depend on information about existing use patterns, violation and accident patterns, natural resource conditions, user demand and conflicts, and social and economic interactions. BLM district and field offices should gather enough information to make informed travel management decisions. Existing authorizations, such as rights-of-ways and easements routes, should be mapped on Master Title Plats and be available at BLM Public Land Information Offices or on-line at BLM's Spatial Data Management System Web site at <http://www.sdms.ak.blm.gov/sdms>.

The general public, user groups, stakeholders, and Resource Advisory Councils are valuable sources of information. Federal, state, local, and tribal governments often have critical information and perspectives that can benefit this process. Public participation at this stage can include sharing information about user-created roads and trails, joint collection of data, and collaborative learning about impacts. An open public process can increase understanding about travel management issues and set the stage for successful collaborative decision-making.

This inventory must include maps as well as information on the current authorized uses and characteristics of each route. Regardless of which inventory options are used, inventories should be conducted using **BLM Technical Reference #9113-1, Planning and Conducting Route Inventories, 2006** (<http://www.blm.gov/nstc/library/pdf/TR9113-1.pdf>).

1.2.1 Inventory Methods

The route inventory is the first step to identifying a desirable BLM transportation network. Several methods can be used to gather travel information needed to map routes. The method used depends on public participation, funding availability and the level of

inventory needed to complete route selections. The type of inventory process used can vary between different Travel Management Areas but should be consistent with the RMP management goals for the planning area.

A. User Inventory

In this approach, the BLM does not initially gather data on user-created roads, primitive roads and trails. Rather, the agency facilitates identification of desired additions to the transportation network with partners, agencies, and communities of interest. As desirable routes are identified, the agency and interested parties can organize joint visits, and or meetings, to gather necessary information.

This is generally the preferred approach in areas designated as Limited because it has the least cost, the greatest emphasis on collaboration, and focuses on changes to the baseline system of BLM roads and trails. This approach should be considered where the number of potential user-created routes is very large and information on individual routes is limited. It will be most effective where there are well-established user groups and effective working relationships.

Considerations

- Cost of initial inventory is low.
- The BLM has to define expectations early in the inventory process.
- A desired network of BLM roads and trails can be established through collaboration and consensus.
- Process is dependent upon participation by groups with their own diverse interests and goals.
- Focuses on issues and needs, and consideration of historic uses as appropriate, including traditional uses such as subsistence.

B. Partial Inventory

In this approach, the BLM identifies an initial set of known user-created routes for consideration. These routes may be well known and based on existing agency inventories or other information. The BLM may identify high-priority areas in which agency employees or members of the public map existing routes according to defined criteria. Affected communities can validate this initial list and identify additional routes for consideration.

This may be the preferred approach for dealing with well-known, well-established, user-created routes; specific areas of particular sensitivity; or units where the number of user-created routes is relatively low. The focus is still on identifying those user-created routes that should be considered for addition to the transportation network rather than on creating a complete record of every path ever used. As an added benefit, including the public in an initial inventory will build positive relationships with users.

Considerations

- Low-to-moderate inventory costs.
- Makes use of existing information.

- Early identification of key routes.
- Success is dependent on participation by all user groups.
- Some users may be reluctant to participate if they distrust the process.

C. Complete Inventory

In this approach, the BLM begins the designation process by assembling a complete inventory of all routes, including user-created routes, in the planning unit through some combination of remote sensing and inventory conducted by field crews, the public or contractors. A complete inventory will often include well-sited sustainable routes that would make good additions to the BLM transportation network, poorly located routes causing environmental damage, and multiple routes to the same location. The emphasis is on establishing a baseline inventory of what routes exist on the ground. Interested parties may validate the inventory by identifying routes missed in the initial pass, providing route history or information, or participating in the inventory themselves.

This may be a suitable approach where the BLM has made commitments to interested parties, outside funds are available, and the process is already underway. A complete inventory of user-created routes has long-term value for monitoring and for identification of restoration needs. However, beginning the designation process with a complete inventory is costly, lends legitimacy to unplanned routes, and focuses attention on recording past activities rather than identifying future needs.

Considerations

- Cost of conducting inventory is high.
- Provides an immediate basis for monitoring route proliferation during the travel planning process.
- Provides a basis for short-term closures pending designation, and determine if subsistence access is affected (see ANILCA limitations).
- Establishes a record of existing ground disturbance for long-term restoration.
- Difficult to complete 100 percent inventory, as user-created routes continue to be developed.
- Possible debates over completeness of inventory and mapping standards.
- Complete information on existing use for evaluation of project-level environmental impacts.

1.2.2 Minimum Route Inventory Criteria

In addition to the route inventory requirements and information above, BLM-Alaska has established minimum criteria for route inventories based on OHV designations.

For route inventories in all area designations, TMPs must consider those uses unique to Alaska and other access needs:

- ANCSA Section 17(b) easements
- ANILCA access provisions
- Mining and energy access

- Military roads and access
- Authorized access, such as ROWs and easements

These recommended route inventory criteria are common to all area designations:

- Prioritize inventory areas by level of concern, such as, SRMAs, cultural, historic, subsistence, or sensitive biological areas considered significant.
- Collect baseline route inventory on 1:63,360 scale maps or by Geographic Positioning System (GPS) for use with Geographic Information Systems (GIS) software, including any significant routes such as historic, administrative, authorized, subsistence, and inter-village routes.
- Use public meetings to educate public on process and collect route information.
- Use an interdisciplinary team to review data.

Route inventory is expensive and dependent on funding. Field staff may consider different levels of data collection depending on the OHV designation of the area. For example, in areas designated as Open, use volunteers to reduce labor costs and collect data as needed to lower collection costs. In areas designated as Limited where route locations are more critical, use only trained staff to collect route data to improve consistency and accuracy. In areas designated as Closed to motorized activities, use field staff to map routes and monitor the areas to prevent route proliferation.

1.2.3 Recommended Inventory Tools:

Table 3: Methods of Data Collection

Methods of Data Collection	Pros	Cons
Digital Ortho Quads (Base Layer)	<ul style="list-style-type: none"> • Covers medium-scale areas, typically at the 1:50,000 scale in Alaska. • Orthophoto images have horizontal and vertical accuracy added to the imagery data. • Ability to overlay data in GIS software. • May acquire ancillary data (such as digital terrain models or digital surface models) during the production process. 	<ul style="list-style-type: none"> • Can be expensive since it requires acquisition with specialized spaceborne or airborne sensors. • Requires post-processing. • Products may have licensing restrictions. • Very little coverage in Alaska, mostly on a project basis.

Methods of Data Collection	Pros	Cons
Satellite Imagery	<ul style="list-style-type: none"> • Snapshot in time of large areas. • Ability to overlay data in GIS software; however, for the overlay process to be accurate, additional data is required (see Con for this method). • Unprocessed or minimally accurate data may be archived and available for project-related areas. • May be less expensive than collecting route data with GPS methods or aerial photography. 	<ul style="list-style-type: none"> • Can be expensive to purchase. • May carry license restrictions. • Without a reliable digital elevation model, cannot be made spatially accurate. • More appropriate method to identify wide, well-established trails.
Aerial Photography	<ul style="list-style-type: none"> • Can cover large- or small-scale areas. • Ability to overlay data in GIS software; but for the overlay process to be accurate, additional labor efforts and data are required (see Con for this method). • Can archive raw aerial photography so it is available for specific project areas. • May be less expensive than collecting route data using a GPS. 	<ul style="list-style-type: none"> • Can be expensive, since it requires acquisition with specialized aircraft and aerial cameras. • If creating topographic maps from aerial photography, ground control must be used, which will add to the cost. • More appropriate for narrower, less frequently used trails.
GPS routes using differentially correctable GPS and data dictionary	<ul style="list-style-type: none"> • Ability to accurately map routes. • Ability to overlay data in GIS software. 	<ul style="list-style-type: none"> • Data collection is expensive and labor intensive. • Requires post-processing of GPS data.
Overflights using 1:63,360 scale maps to record routes	<ul style="list-style-type: none"> • Relatively easy to do. • Fast turnaround. • Information on paper map. 	<ul style="list-style-type: none"> • Expensive to rent aircraft. • High degree of inaccuracy of route locations. • Data not easily converted to GIS.
Public Input – mailings, surveys, meetings	<ul style="list-style-type: none"> • Through participation and input, gains public "buy in" of the process. • Inexpensive way to gather information. 	<ul style="list-style-type: none"> • Can be controversial. • Route locations need to be ground-truthed. • Information can be inaccurate.
Rights-of-way and easement information from the Master Title Plats	<ul style="list-style-type: none"> • Inexpensive. • Provides data on authorized rights-of-way and easements. 	<ul style="list-style-type: none"> • Plats may not be accurate. • Records may be incomplete or out of date.

1.2.4 Mapping Data Required for All Routes Inventoried

- Collect route inventory and minimum statewide data attributes (Appendix B).
- Collect linear line features – roads, primitive roads and trails.
- Collect significant point data – administrative sites, recreation sites, cultural and historic sites, authorized sites.
- Collect significant hazards as point data or polygons as needed – active mines, abandoned mine lands, drill sites, dumps, etc.
- Develop Trail Management Objectives (TMOs)
 - Identify primary type of use by route – administrative, recreation, authorized, industrial, subsistence.
 - Identify primary mode of travel by route – motorized, non-motorized, mechanical, and animal-powered.
- Collect required FAMS data for BLM-managed routes using the Interagency Trail Data Standards.



1.3 Criteria for Making Route Selections

TMPs must include criteria to select which routes will be considered for addition to the BLM Transportation Plan in Alaska. Most existing roads and trails on public lands were created by users and are generally in poor or degraded condition, rather than being planned and constructed to be sustainable. The BLM should move toward a desired transportation network rather than relying solely on inherited roads and trails. A planned transportation network can effectively serve the public, minimize resource damage and reduce long-term maintenance costs.

A desired transportation network will address a variety of activities such as:

- Casual and recreational use
- Commercial uses, such as guides and transporters
- Industrial uses, such as mining, oil and gas
- ANILCA access provisions
- Authorized uses, such as ROWs and easements

The route selection process should consider more than just which individual roads and trails should be closed or remain open. This process should emphasize the planning and design of a desired BLM transportation network through relocation, construction, reconstruction, or decommissioning of routes. These management considerations should support the Trail Management Objectives and develop a sustainable transportation network.

This selection process should include an Interdisciplinary Team to address resource impacts and concerns. A well-designed travel network can direct use away from sensitive areas, yet provide quality recreational activities and access for subsistence, commercial and recreational needs. Including public participation will provide users with some assurance that their important routes will be given appropriate consideration, and will

provide the BLM with specific information about these routes to evaluate social and environmental impacts of adding them to the BLM Transportation Plan.

1.3.1 Critical Elements for Route Selection

The BLM field offices should use an Interdisciplinary Team in conjunction with cooperating agencies and partners to identify resource and use conflicts, as well as the benefits of various routes. The conflicts and benefits should be documented (using a matrix, spreadsheet, checklist, etc.). In determining potential impacts, conflicts and benefits, consider a wide variety of issues and concerns, including:

- Desired future travel and transportation network
- Consistency with RMP prescriptions for land use allocations, including:
 - Special Recreation Management Areas
 - Areas of Critical Environmental Concern
 - Research Natural Areas
 - Other special areas
- Paleontological resources
- Watershed resources
- Erosive soils
- At-risk watersheds
- Municipal watersheds
- Vegetative resources
 - At-risk vegetation sites
 - Threatened, endangered, and sensitive vegetation species
- Wildlife resources, including
 - Crucial winter habitats
 - Calving habitats
 - Endangered and sensitive species habitat
 - Raptor nesting locations
- Subsistence resources and access methods
- Visual resources
- Elimination of route redundancy
- Standards for Public Land Health and Guidelines
- Recreation Opportunities/Experiences
- User conflicts
- Public health and safety, emergency services
- Forest management resources
- Administrative access for the BLM and BLM-authorized activities
- Energy and resource development
- Outside agencies and partners
- Current maintenance agreements
- Potential for adverse or positive economic impacts
- Fire considerations
- Abandoned Mine Lands

1.3.2 Route Selection Criteria

Selecting criteria to identify existing routes to be retained as part of the overall BLM transportation network is one of the most important aspects of travel management. These criteria should support RMP goals and objectives.

Some examples of criteria used to make route selections:

- Provides access to public lands
- Resolves resource issues
- Enhances BLM transportation network
- Connects with an existing route or easement
- Legislatively mandated or legally asserted access/route
- Resolves user conflicts
- Reduces route duplication
- Provides sustainable routes
- Reduces overall number of routes
- Provides access to resources, including subsistence resources

There may be other route selection criteria needed to resolve resource management issues within the RMP. Document your criteria selection process and decisions.

Chapter Two

IMPLEMENTATION

Travel Management should reflect the resource allocation decisions and the goals and objectives in land use plans. Implementing Travel Management decisions can be controversial and users may be reluctant to change their use patterns. Implementation should be conducted in a professional manner with the public's interest and needs in mind.

RMPs will include decisions for implementing OHV area designations and other actions depending on how much travel management information is available at the time the RMP is completed. Other implementation decisions, such as route selections, can be made in the subsequent TMPs.

Table 4 identifies possible RMP Travel Management Goals and Objectives, and the associated Implementation Action.

Table 4. Implementation Actions (Goals 1 through 5)

<i>Goal 1: Minimize Resource Damage</i>		
Objective	Action Item	Section
Identify area and route designations for OHV activities.	Install signing on appropriate priority routes and provide the public with key information.	2.1-2.1.5
Conduct public outreach and provide information and interpretation.	Install information kiosks at major entry points. Distribute transportation network maps.	2.2-2.2.2
Seek additional funding.	Increase the level of funding through grants for signing and travel management.	2.6-2.6.2
Manage trail networks and identify priority areas where access is needed (recreation, ROWs, easements, authorized uses, in-holdings, and subsistence areas).	Install signing on appropriate priority routes and provide the public with key information.	2.7-2.7.4
Assess current resource conditions. Monitor status of resources.	Develop monitoring to document user-created roads and trails.	3.1-3.1.3

Goal 2: Provide Travel Opportunities		
Objective	Action item	Section
Address all types of travel (recreational/ commercial/ subsistence/ administrative/ authorized) and assess conflicting uses.	Inventory all routes and trails and identify primary types of use (recreational/ commercial/ administrative/ authorized), issues and conflicts (motorized/ non-motorized).	1.2-1.2.7
Encourage users to stay on designated routes and/or trails.	Develop trail networks that users want and support, using Benefits Based Management concepts.	2.2-2.2.2
Involve users and stakeholder groups.	Develop trail stewardship groups for recreation sites/trails/routes. Develop partnerships with stakeholders.	2.5-2.5.2

Goal 3: Use Clear and Consistent Standards		
Objective	Action Item	Section
Coordinate across public, state and private jurisdictions.	Develop additional partnerships with local and state governments, Native corporations, user groups, and volunteers.	2.5-2.5.2
Ensure non-conflicting uses across federal, state and Native lands.	Track the motorized travel rules and laws to avoid conflicting uses across federal, state and Native land boundaries, and allow for an appropriate transition at the boundaries where allowable uses change.	2.5-2.5.2
Explain differences in land management terms and definitions.	Work with federal, state and Alaska Native counterparts to provide mapping and designation information at federal, state and Native boundaries using maps and displays.	2.5-2.5.2

Goal 4: Develop Partnerships		
Objective	Action Item	Section
Develop education/outreach/ information materials.	Develop travel maps and distribute through kiosks and local businesses; Native groups; local, state and federal government offices; and other land management organizations.	2.2-2.2.2
Seek out high-visibility venues or trade shows with partners.	Present information at trade shows, outdoor shows, fairs, etc.	2.2-2.2.2
Involve users in all aspects of route planning, development and maintenance.	Develop recreation stewardship/volunteer groups for recreation sites/trails/routes.	2.3-2.3.2

Goal 4: Develop Partnerships		
Objective	Action Item	Section
Coordinate and communicate with local governments, state and federal agencies, and Native groups.	Develop additional partnerships with local government, user groups, volunteers and stewards.	2.5-2.5.2
Integrate field staff to communicate more effectively across programs, such as, wildlife, fisheries, soil-water-air, riparian, law enforcement, lands, mining and engineering.	Involve all agency disciplines and programs in travel planning.	2.5-2.5.2
Seek input/involvement early and often with BLM-Alaska RACs, tribes, Native corporations, permittees and user groups.	Encourage user groups, Native entities, and BLM-Alaska RACs to take part in travel planning efforts.	2.5-2.5.2

Goal 5: Improve Public Understanding		
Objective	Action Item	Section
Provide information at a variety of community outlets in addition to BLM offices.	Ensure maps and rule information are available locally (state and Native corporation offices), Alaska Public Land Information Centers, BLM offices, and through BLM Internet sites.	2.2-2.2.2
Provide a field presence to inform users.	Use volunteers and grant funding to provide a field presence (campground hosts).	2.2-2.2.2
Design information to target problem areas.	Assign information resources to resolve problem areas first.	2.2-2.2.2
Provide rationale for rules.	Explain policies and rules to users through interpretation.	2.2-2.2.2
Reinforce natural resource values.	Provide natural resource education at kiosk locations.	2.2-2.2.2
Provide opportunities for public feedback, comments and ideas.	Provide feedback materials at kiosk locations.	2.2-2.2.2
Tailor information to non-organized users.	Use alternative media to inform users.	2.2-2.2.2
Design public safety messages.	Place safety and informational messages at major entry points to agency lands.	2.2-2.2.2

2.1 Area and Route Signing

Identifying OHV use areas and routes is an important step in implementing travel management decisions. Whether the area or travel routes have designations of Open, Limited or Closed, signs should identify area boundaries and allowable OHV uses. Signs should inform the public of the current OHV rules, route identification, allowable uses, and prohibited practices. Strategic placement of OHV designation signs and information kiosks with trail maps can provide important information to users to encourage compliance and prevent resource damage. Sign plans should be developed with consideration given to the Recreation Opportunity Spectrum and Visual Resource Management prescriptions and classifications developed for the area in the applicable resource management plan.

2.1.1 Sign Plans

Sign plans provide guidance for identifying signing needs at a specific site, an area, or for all the lands managed by the field office. Sign plans are part of a comprehensive approach to travel management and should address all types of travel – non-motorized, mechanized and motorized. Sign plans should identify which programs are responsible for different types of signs. For example, due to traffic safety and road sign requirements, signing BLM-managed roads needs to be done with concurrence from the engineering program.

A good example of how to develop a sign plan is on the BLM sign website at: <http://www.blm.gov/style/medialib/blm/wy/signs/docs.Par.7047.File.dat/signplan.pdf>. This document explains the basic steps of developing a signing plan for your office.

A copy of the BLM sign manual can be downloaded at: <http://www.blm.gov/style/medialib/blm/wy/signs/docs.Par.12278.File.dat/manual.pdf>

BLM sign standards are in the BLM Sign Guidebook, Technical Reference 9130, 2004 at: <http://www.blm.gov/style/medialib/blm/wy/signs/docs.Par.61916.File.dat/guidebook.pdf>

2.1.2 Sign Types

Signing can be used to achieve several desired travel management outcomes. Route markers are used to identify designated routes of travel and other BLM-managed routes and to identify what types of activities are allowed and what types are prohibited. Where certain forms of travel are not allowed, prohibitive signing should be used to discourage and prevent those forms of travel on that route. Signing can also be used to identify seasonal route closures when necessary and at area boundaries where travel restrictions change. When travel restriction signs are used, the sign should clearly display all of the allowed uses as well as the prohibitions (see examples of route and area designation signing below).



Signs should be used to:

- Identify public land boundaries
- Promote appropriate uses by displaying icons depicting allowed and prohibited uses.
- Identify route designations with trail markers, directional signs, and reassurance markers.
- Identify any OHV limitations by vehicle class and time of year, as appropriate.
- Identify any prohibitions on motor vehicle use off the designated network.
- Inform visitors about allowable motor vehicle uses.
- Inform visitors about authorized motor vehicle use taking place off the designated trail or route network (such as use of motorized vehicles and equipment by contractors or other authorized users, such as in-holders or those pursuing subsistence and mining activities).
- Inform visitors about regulations related to short-term or emergency restrictions, restrictions on over-snow vehicles, or restrictions to non-motorized uses not covered by the travel management rule (such as restrictions on bicycle or livestock use on a trail).
- Inform visitors of any additional travel restrictions, such as a wash-out or other safety issues.
- Encourage compliance through citation of CFR or Special Regulations, and list the prescribed penalties for violation.
- Inform visitors about BLM contact information that will give them additional information and where they can report unauthorized use.

2.1.3 Sign Placement

Signs should be placed so they maximize the opportunity to convey their messages, yet minimize visual conflicts and vandalism.

- Where possible, place signs where they are unlikely to be run over or hit.
- Limit sight distance at remote locations to the minimum necessary to achieve sign purpose. This will make them less of a target for firearms.
- Install trail markers at appropriate distances apart to keep riders on the trail. Place signs where the users need them, but do not over-sign a route or location.
- Sign for intended season of use, for example, markers on winter trails may be required at more frequent intervals than markers along summer trails that follow a path.



- Consider the use of tripods and reflective signs to mark winter trails across open areas.
- Consider the Visual Resource Management and Recreation Opportunity Spectrum classifications when choosing a route marker, such as using rock cairns along summer cross-country routes.
- Installation of highway and road signs that identify management boundaries and recreation sites need to comply with the appropriate federal, state and local traffic regulations, permit and safety requirements.

2.1.4 Standards for OHV Signs

These signs are intended to inform the traveler about the travel management designations for an area or route.

Color:

Color on the signs will be white on brown. Colors must resist fading from 24 hours of sun and ultraviolet light during the summer months in Alaska.

Symbols:

Only federal recreation symbols may be used on these signs. Always use appropriate, current, international symbols. Symbols will be reflective. To ensure consistency, consider using the following symbols:

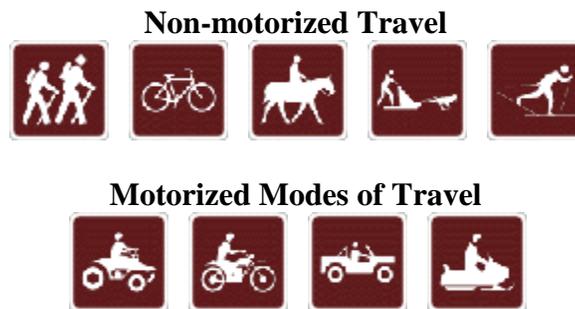


Figure 1. Sign Icons

A red slash across a symbol will be used to identify prohibited activities. No other color than red should be used for the slash.

Consistency is key to the success of signing. Whenever multiple symbols are used, the order of placement will be:

1. Allowed uses
2. Prohibited uses with red slash

Materials:

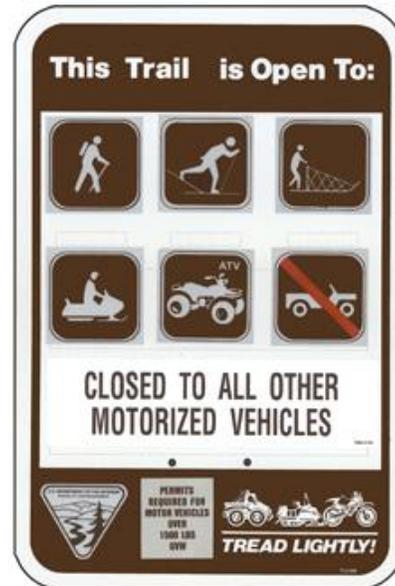
The preferred sign materials are plastic or a Carsonite®-style sign material. Travel management signs will not be constructed on paper or poster-type materials, unless temporary in nature. In Alaska, materials must be able to resist fading from 24 hours of sun and ultraviolet light during the summer and extreme cold conditions in the winter.

Fonts

The fonts used will be standard highway fonts and sized as appropriate for the desired vehicle speed on the route, and consistent with BLM road and traffic standards.



(A) Route or Trail Marker



(B) Area or Access Point OHV Sign

Figure 2. Examples of Route and Area Designation Signing

2.1.5 Recommended Priorities for OHV Sign Placement:

Priority signing for travel management, in order of importance, to:

1. Identify OHV area designations (Open, Limited and Closed areas).
2. Identify designated routes.
3. Provide information and interpretation kiosks at major entry points.
4. Protect areas or resources that may be at risk.
5. Identify area and route safety considerations, such as abandoned mine hazards.

2.2 Education and Outreach

Educating the public and the trail user is an important tool for travel management. The public should understand the need for travel limitations, the reasons why there are OHV use designations, and what the environmental and legal consequences are when motorized and non-motorized activities are not properly managed.

2.2.1 Trail Maps

Travel and transportation maps are an integral part of this strategy and these should be available to recreational users at a variety of locations. Maps should show what routes are available to public use and identify the allowed activities along them. Maps developed by the field offices should be consistent, and use standard graphics and symbols approved by the BLM. Several Native corporations have published trail maps of their lands, identifying which routes are available for the public to use.

2.2.2 Travel Information

Information at trailhead and access locations should help the public better understand the reasons for travel management, the environmental consequences, and any travel limitations. This information can be presented at kiosks, information boards, or as themes for publications. Beyond the trail description and map, the following are important messages that trail users should understand:

- Any local motorized vehicle regulations or other use limitations.
- A consistent explanation of Open, Limited and Closed OHV area designations.
- A definition of “resource damage” and “undue degradation.”
- Trail ethics and etiquette rules, such as:
 - Stay on the Trail or Easement
 - Respect other trail users
 - Respect private lands by staying on the trail easements
- Leave No Trace and Tread Lightly! themes.
- The difference between federal and state public lands, and Native private lands.
- Invasive species and methods of control.
- Methods for reporting unauthorized use on public lands.
- Fire danger and how to report wildland fires.
- Where to get information on public lands. Provide addresses for locations, business hours and website addresses.
- Road and weather hazards.
- Any Special Recreation Permits (SRP) and other authorized use information. Explain when an SRP is needed for conducting commercial activities or competitive or organized events.



Additionally, the BLM recognizes the value of using partnerships to disseminate information to the public, such as:

- Local businesses, tribal governments, user groups and organizations, and local, state and other federal government agencies.
- Third-party maps.

2.3 Travel and Transportation Facilities and Assets

Facilities and assets related to travel and transportation management should be coordinated and planned through the engineering program to ensure facilities meet BLM guidelines and requirements. Facilities should be designed to meet the functionality of the proposed activities for that area.

When planning for staging areas or trailheads, consider:

- Parking area – size, number and type of vehicles/trailers, turn radius, driveway and highway access, type of surface, seasons of use (summer/winter)
- Restrooms – are restroom facilities needed, can they be maintained?
- Trash – are trash receptacles needed, can they be maintained?
- Signing – consider directional, informational, interpretative, and OHV designation signs.
- Loading ramp – is the trail open to motorized vehicle use?
- Accessibility – new facilities should adhere to applicable accessibility requirements.



For transportation features that have been identified as meeting the BLM's long-term access goals (developed roads, primitive roads and trails), establishing travel management objectives on a route-by-route basis will help ensure these routes are properly maintained and meet safety standards for the desired type and level of use, as well as the desired setting and experience.

Considerations should include:

- Mark designated routes to ensure users stay on the intended route.
- Sign area and route designations provide the public with information so they know and understand what the area and route designations are.
- Design and construct sustainable routes. Locate routes to avoid sensitive areas and reduce resource damage.
- Location of the route may not be sustainable. Consider rerouting when necessary to reduce use conflicts or resource damage.
- Suitability of the route for the desired type or level of use. Do not build ATV-sized trails when larger vehicles are allowed to use the route.

- Perform maintenance, such as hardening, to reduce the route's footprint and any resource impacts the route may cause.

2.3.1 Integrating Travel Routes into Facility Asset Management System (FAMS)

Using selection criteria established in the land use plan, field offices will identify routes that provide long-term access to public lands, require investments of funds and resources, and meet the BLM's management goals and objectives. Field offices should work with the state office engineering staff to enter these assets into the Bureau's FAMS database. A list of Alaska's transportation-related FAMS assets can be found in Appendix C.

2.3.2 Condition Assessments

Staff is encouraged to conduct condition assessments of routes identified for long-term management by the BLM to determine overall condition of significant and high-use routes. These assessments will identify hazards and maintenance needs, and support funding requests for improvements to ensure the public can travel safely along these routes. The Forest Service TRACS system⁵ is being adapted by the National Park Service in Alaska and by the BLM in other states for conducting condition assessments on their routes in a uniform and consistent manner. BLM-Alaska field offices should either consider using TRACS or establish a similar condition assessment process in their TMPs to assess and document trail conditions for routes listed in FAMS.

2.4 Law Enforcement

Law enforcement plays a valuable role in the success of travel management. The presence of law enforcement and BLM staff in the field encourages the public to comply with area regulations and reduces undesirable actions and environmental damage. Resource staff needs to work with law enforcement staff to develop an effective law enforcement plan that identifies high-use periods and common problems and patrol schedules and methods to promote public understanding of, and compliance with, the travel rules and regulations.

2.4.1 Implementing Travel Regulations

The Record of Decision for each resource management plan serves as public notification of the OHV area designations (Open, Limited and Closed) within the planning area. Access closures under ANILCA Sections 811 (b) and 1110 (a) will be implemented in accordance with ANILCA (see Appendix B). Signs installed at major access points and trailheads should identify area and trail OHV designations, and which activities are allowed and which activities are prohibited. These requirements are described in 43 CFR 8342.2.

Field offices can also develop Special Rules to protect areas where resources are susceptible to damage or impacts from travel activities, as described in 43 CFR 8341.2. Programs with "at-risk" resources should work with law enforcement staff to develop practical and enforceable rules that provide resource protection and yet allow reasonable

⁵ Trail Assessment and Condition Survey (TRACS)

access. In areas designated as Limited, the Special Rules should describe any travel or vehicle limitations that apply, such as limiting use of motorized vehicles to designated trails, seasonal trail use, or vehicle weight or size limitations. The Special Rules should also identify any exceptions to casual use that were determined in the RMP (for example, allowing mobility challenged or subsistence users to operate motorized vehicles off a designated trail network).

2.4.2 Public Notices

Occasionally, field offices must publish public notices to inform the public of proposed actions that affect public lands or to clarify travel regulations. Resource staff should work with their Office of Communications and Public Affairs office to ensure that notices and publications follow Bureau policy and are properly distributed. Public Affairs staff and the Office of Communications will also assist staff with preparing *Federal Register* Notices, which requires special formatting, approval and processing.

Additional guidance on *Federal Register* Notices can be found at:

- BLM Washington Office Public Affairs Online Resource:
<http://web.blm.gov/internal/wo-600/610/documents/federalregister.htm>
- Federal Register Document Drafting Handbook (*updated 11-17-09*):
<http://www.archives.gov/federal-register/write/handbook/ddh.pdf>

2.5 Collaboration with Other Agencies, Stakeholders and Partners

The BLM managed approximately 80 million acres of public lands in Alaska in 2009. The agency anticipates long-term management of approximately 70 million acres after approximately 11 million more acres are conveyed out of federal management to fulfill the entitlements of the Alaska Statehood Act and the ANCSA. The State of Alaska and Native village and regional corporations have a long-term interest not only in how the BLM manages travel and transportation across the selected lands, but how the BLM administers ANCSA Section 17(b) easements that provide public access across Native-owned private lands. As a result, the BLM cooperates with the potential new landowners, State or Native, to provide agreed-upon interim management of these selected lands until they are no longer under federal management or ownership is resolved.

2.5.1 Agencies, Stakeholders and Partnership Considerations

On State- and Native-selected lands, the BLM typically designates the lands as Limited, adopting limitations similar to the State of Alaska's "Generally Allowed Uses on State Lands" provision as described in 11 AAC 96.020 (www.dnr.state.ak.us/mlw/factsht/gen_allow_use.pdf). This provision generally allows use of a "highway vehicle with a curb weight of up to 10,000 pounds, including a four-wheel drive vehicle and a pickup truck, or use of a recreational-type vehicle off-road or all-terrain vehicle with a curb weight of up to 1,500 pounds, including a snowmobile and four-wheeler, on or off an established road easement, if use off the road easement does not cause or contribute to water quality degradation, alteration of drainage systems, significant rutting, ground disturbance, or thermal erosion." The State's Conditions for Generally Allowed Uses further restricts

vehicles use to existing roads and trails whenever possible (11 AAC 96.025). (Curb weight means the weight of a vehicle with a full tank of fuel and all fluids topped off, but with no one sitting inside or on the vehicle and no cargo loaded.) Use of Native-selected lands for commercial activities requires a permit from the BLM and a letter of non-objection from the affected Native corporation.

Per the ANCSA Section 17(b), the BLM also reserves public easements at the time of conveyance of land title to Native village and regional corporations. These easements allow public access across Native-owned private lands to reach public lands and are subject to limited use and activities. In some areas, these easements provide access to popular areas and receive significant use that degrades the easement and causes trespass conflicts. BLM staff is encouraged to work with landowners to identify ways to educate easement users about allowable uses on easements, identify and mark easement locations, and reduce user conflicts.

2.5.2 Potential Partnership Groups in Alaska

This list does not represent a complete inventory of groups to contact. It is intended to be a starting point for offices engaging in travel management decisions, and to introduce avenues for distribution of information, such as trail and easement maps, to the public.

- Alaska Outdoor Council (www.alaskaoutdoorcouncil.org) –
Dedicated to the preservation of outdoor pursuits in Alaska - hunting, fishing, trapping, and public access - and conservation of the habitats upon which they depend.
- Alaska State Snowmobile Association (www.aksnow.org) –
Statewide nonprofit organization.
- Alaska Trails (www.alaska-trails.org) –
Statewide nonprofit organization advocating trails.
- Alaska Trappers Association (www.alaskatrappers.org) –
Statewide nonprofit organization advocating trapping activities.
- Iditarod National Historic Trail, Inc. (www.iditarodnationalhistorictail.org) –
Dedicated to the maintenance and preservation of this historic trail system.
- Iditarod Trail Committee, Inc. (www.iditarod.com) –
Iditarod race committee (Dedicated to the annual commemorative race.)
- Rivers, Trails and Conservation Assistance Program
(www.nps.gov/nrc/programs/rtca/contactus/regions/alaska.html) –
This National Park Service program provides technical expertise for local partnership projects involving rivers, trails and land conservation.

A more complete list of trail clubs and organizations in Alaska can be found on the Alaska Trails website, www.alaska-trails.org/trail_connections/trailclubs.pdf.

Other user groups to consider contacting:

- ATV user groups
- Hiking groups

- Equestrian groups
- Mountain biking groups
- Hunter associations
- Bow hunter associations
- Birding groups
- Outfitter/Guide groups
- Snowmobile groups
- Cross-country ski clubs
- Dog mushing groups
- Tribal governments and organizations
- BLM-Alaska Resource Advisory Council
- Federal Subsistence Resource Advisory Councils
- Mineral, oil and gas interests
- Environmental and conservation groups
- Federal, state and local law enforcement agencies
- In-holders (owners of private property located within a federal unit)
- Right-of-way holders
- Fire suppression agencies
- Utility companies or cooperatives (ROWs/easements)



2.6 Travel and Transportation Funding

The BLM is encouraged to look outside the normal agency process to accomplish priority work, especially for recreational trail access and improvements. To do this the BLM needs to look toward new sources of funding, such as acquiring trail grants from outside sources, developing Challenge Cost Share partnerships, and increasing use of volunteers and user organizations. These partnerships help the BLM meet mission goals and encourage citizen stewardship of public lands and resources.

2.6.1 Alaska OHV Trail Grants

The State of Alaska Department of Natural Resources offers several types of matching grant funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The Recreational Trails Grant Program is available for development and maintenance of trails and facilities, acquisition of trail rights-of-way, and development of safety and environmental protection education programs. This matching grant program provides up to \$50,000 to successful applicants.

Snowmobile Trail Grants are matching-grant funds for trail easement acquisition, development and maintenance of trails and trail-related facilities for snowmobile use. The program also provides funds for snowmobile safety and educational programs. Additional information can be found on the Alaska State Parks Trail Grants website at: www.dnr.state.ak.us/parks/grants.

2.6.2 Volunteers

Volunteers are vital partners in the BLM travel management program. They provide hundreds of hours of work on public lands annually and help the BLM to accomplish its mission while stretching available funding. Follow BLM guidelines for signing up volunteers and arranging for their safety training. By signing the Volunteer Services Agreement, the volunteer receives Tort claim protection and worker's compensation benefits for volunteer work-related incidents.



There are many public land volunteer organizations. Be aware that in most cases there will need to be a signed agreement between the organization and the BLM. Field staff should work with procurement and contracting staff to ensure agreements meet BLM requirements. This is just a partial list of volunteer organizations that have assisted BLM-Alaska with trail projects in the past:

- Alaska Trails (www.alaska-trails.org)
- American Hiking Society (www.americanhiking.org)
- Serve Alaska Youth Corp (www.servealaska.org)
- Student Conservation Association (www.thesca.org)

2.7 Land Actions

In some situations, the BLM should authorize rights-of-way to itself for linear access across public lands, or for a right-of-way (ROW) or withdrawal for long-term use sites (for example, trailheads) on BLM-managed public land. Rights-of-way protect the public's access across land with other activities occurring on it, such as mining claims or other types of authorized uses. For instance, if a miner wanted to mine underneath a trail, public access could be affected. The authorization or withdrawal would result in notation to the Master Title Plats and the records, ensuring protection and awareness if other interests or activities are requested in the same area.

2.7.1 Site Rights-of-way and Withdrawals

Where the BLM intends to manage a recreation or administrative site for long-term public use, the BLM should consider authorizing a site right-of-way or withdrawal to itself to protect its financial investment and to protect and reserve appropriate surface use rights. If the public land has already been withdrawn from entry, a ROW should be obtained. Where public land is unreserved, a site withdrawal should be considered.

2.7.2 Road and Trail Rights-of-way

Where the BLM intends to manage a route or trail for long-term public access, the BLM should consider authorizing a linear ROW to itself to protect its financial investment and to protect and reserve appropriate surface use rights.

2.7.3 Applying for a Right-of-way

The process to apply for a ROW involves filling out a Standard Form 299 application, providing a map of the route, and completing the appropriate NEPA document. Field staff should work with their lands staff to process these applications.

2.7.4 ANCSA Section 17(b) Easements

ANCSA Section 17(b) easements are reserved by the BLM for the public to use while crossing Native-owned private lands to reach public lands and waters. These easements are reserved in conveyance documents issued to the Native corporation at the time of the land conveyance. The easement description identifies the site and trail width and the allowable uses, which are determined based on an easement-by-easement basis. These easements are for transportation and access purposes only and do not allow recreational use along the easement. The BLM can also reserve a one-acre site easement at the beginning or along the trail easement for purposes such as camping (no longer than 24 hours) and changing modes of transportation.

The BLM can, with the approval of the BLM State Director and the appropriate district and field managers, and with the consultation and non-objection of the landowner, maintain or improve ANCSA Section 17(b) easements that are degrading due to public use. Refer to the ANCSA Section 17(b) Easement Management Instruction Memorandum and Handbook for further guidance

(www.blm.gov/pgdata/etc/medialib/blm/ak/aktest/ims.Par.6478.File.dat/im_ak_2007_037.pdf).

View or download the ANCSA Section 17(b) easement brochure from the BLM-Alaska Web site at http://www.blm.gov/ak/st/en/prog/recreation/rec_pubs.html



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Chapter Three

MONITORING

3.1 Travel Management Monitoring

Land use plans determine resource use allocations and set prescriptions for activities allowed on BLM-managed public lands. Monitoring these activities provides important feedback to the BLM on the effectiveness of land use plans to achieve desired resource management outcomes, especially for the travel management program.

Travel management monitoring is more than observing users to ensure activities are conducted in a safe manner and users are complying with area regulations. Monitoring access provides information about resource uses and allows the BLM an opportunity to assess whether or not certain levels of use are causing resource damage. If the damage is significant, the BLM can re-evaluate and modify travel management practices to ensure resources are protected and access is properly managed.

3.1.1 Monitoring Public Land Access

By monitoring access to public lands, information that will assist BLM management with decision-making can be gathered. Design your monitoring project to collect information that will meet those needs.

Monitoring can be used to:

- Assess areas of use
- Assess types of uses and modes of travel
- Assess amount of use that is occurring
- Identify issues and conflicts related to access
- Track trends and changes in travel and route use
- Evaluate the quality of experience
- Document proliferation of new user-created routes
- Document route conditions and update travel information
- Track travel-related compliance, violations, injuries, etc.
- Evaluate effectiveness of travel management prescriptions
- Assess and adapt travel management actions
- Ensure management decisions, goals and objectives are being met
- Support a change of management goals and objectives and LUP decisions

3.1.2 Monitoring Times and Locations

Monitoring must be conducted at appropriate times to obtain useful information. Conducting monitoring during peak-use periods, such as holidays and hunting seasons, will identify the type and extent of use occurring. Other periods of use should also be monitored also to document overall trends. In some situations, winter may be the primary use period, so monitoring should be conducted seasonally.

Monitoring the proper location is equally important. Monitoring should occur in areas the public uses, such as along developed roads, primitive roads, and trails; at access points such as trailheads and staging areas; at recreation and destination sites such as campgrounds and play areas; and at various dispersed points across large tracts of public lands.

3.1.3 Monitoring Objectives

Most BLM management plans contain some form of adaptive management so changes can be made as necessary to retain the desired resource conditions. Monitoring data can be used to re-evaluate planning decisions and amend them when necessary. Incorporating monitoring information is integral to using an adaptive management approach.

To ensure the monitoring data collected will be useful, keep these objectives in mind:

- Design the project to monitor RMP objectives and answer specific questions.
- Conduct monitoring during the appropriate time and location.
- Share data and collection costs with other agencies and organizations.
- Use a scientific perspective to gather reliable information.
- Give equal emphasis to management evaluation and collection of data.
- Conduct monitoring in a feasible and affordable manner.

Changes to the network of roads, trails, and areas designated for travel may include constructing new routes, relocating a trail, closing routes to use, or changing designated motor vehicle uses or seasons of use. Revisions to OHV area and route designations are subject to CFR regulations and may require an amendment to the area's land use plan. In most cases, transportation network changes can be addressed on a route-specific basis and do not require amendments to land use plan decisions about the entire network of designated routes and areas.

It is desirable that a designated transportation network be managed to prevent adverse effects, and monitoring can help identify potential problems early and prevent adverse effects from becoming significant. Decisions to close a route or an area should be considered when use is directly causing or will potentially cause considerable adverse effects, as well as when faced with other emergencies (such as wildland fire), pursuant to CFR regulations.



Infrared trail counter

3.1.4 Monitoring Methods

BLM-managed public lands can be monitored using a variety of methods:

- trailheads or site registers
- traffic counters along roads and trails
- aerial photography of the area or photo points of specific sites
- public contacts in the field by staff
- overflights of a route or area
- conducting user satisfaction surveys
- scientific sampling
- administration through authorization or permit stipulations



Example of aerial photography used to document trails.

3.2 Recommendations for Monitoring

The intensity of monitoring depends on the management goals and objectives for the area, as well as the area OHV designation. Use of Land Health Assessments is encouraged to determine what indicators should be monitored. Different designations will use different monitoring strategies.

3.2.1 Monitoring Recommendations for Open Areas

- Monitor as needed by BLM specialist or in response to public concern.

Recommended Methods:

- Create checklist for field personnel
- Use aerial photos to document existing conditions
 - establish appropriate project specifics with the BLM Mapping Sciences Division
 - use appropriate image resolution with geo-referencing for project
 - use appropriate image correction and rectification
- Collect and analyze recreational user data through the use of:
 - visitor registration stations
 - trail counters
 - established photo points
- Schedule fixed-wing overflights
- Share agency overflights if possible
- Support an Adopt-a-Trail program



Monitoring river use through overflights

3.2.2 Monitoring Recommendations for Limited Areas

- Monitor as needed by specialist, especially in response to public concern
- Discourage new routes from being developed

Recommended Methods:

- Establish baseline route inventory and monitor for route proliferation
- Conduct aerial monitoring of existing trail network
- Use aerial photos to document existing conditions
 - establish appropriate project specifics with the BLM Mapping Sciences Division
 - use appropriate image resolution with geo-referencing for project
 - use appropriate image correction and rectification
- Collect and analyze recreational user data through the use of:
 - visitor registration stations
 - trail counters
 - established photo points
- Use a scientific methodology with standards

3.2.3 Monitoring Recommendations for Closed Areas

- Monitor as needed by BLM specialist, especially in response to expressed public concern, to ensure compliance.

Recommended Methods:

- Document use with field observations
- Use aerial photos to document existing conditions
 - establish appropriate project specifics with the BLM Mapping Sciences Division
 - use appropriate image resolution with geo-referencing for project
 - use appropriate image correction and rectification

3.3 Monitoring Documentation

Monitoring results should be included in a report to document existing conditions and track trends over time. Create a report that can be used over a period of five to ten or more years. A standard form to record information is useful for gathering repetitive data. Avoid using unique software or equipment that is expensive or difficult to obtain and maintain, or may not be available in the future.

When establishing photo-monitoring points, consider using sites that can be reached at the same time every year so photographs will provide consistent comparisons. Using "before" and "after" pictures can tell a story effectively when documenting use. Be sure to document dates, times, locations, etc., for each photo used in the report.

Be professional when taking field notes and entering observations into the monitoring report. In most cases, this information is available to the public through the FOIA⁶ process. Keep a neutral perspective and refrain from making personal judgment and comments about the activity being monitored.

Maintaining a monitoring report with accurate, reliable and defensible information on the existing transportation network and its uses provides the BLM with a valuable tool to manage travel on BLM-managed public lands.



Recreation site registration box

⁶ Freedom of Information Act

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Appendix A

BLM MANUAL LAND USE PLANNING HANDBOOK – Appendix C

Comprehensive Trails and Travel Management

Land Use Plan Decisions. Delineate travel management areas and designate OHV management areas.

1. Delineating Travel Management Areas

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 the public lands, not just motorized or OHV activities. In the RMP, travel management areas (polygons) should be delineated. Identify acceptable modes of access and travel for each travel management area (including over-land, over-water, over-snow and fly-in access [remote airstrips and floatplanes]). In developing these areas, consider the following:

- a. Consistency with all resource program goals and objectives;
- b. primary travelers;
- c. objectives for allowing travel in the area;
- d. setting characteristics that are to be maintained (including recreation opportunity spectrum and VRM settings); and
- e. primary means of travel allowed to accomplish the objectives and to maintain the setting characteristics.

2. Designation of Off-Highway Vehicle Management Areas

All public lands are required to have OHV area designations (see 43 CFR 8342.1). Areas must be classified as Open, Limited and Closed to motorized travel activities. Criteria for Open, Limited and Closed area designations are established in 43 CFR 8340.0-5(f), (g) and (h), respectively.

For areas classified as Limited consider a full range of possibilities, including travel that will be limited to types or modes of travel, such as foot, equestrian, bicycle, motorized, etc.; limited to existing roads and trails; limited to time or season of use; limited to certain types of vehicles (OHVs, motorcycles, all-terrain vehicles, high clearance, etc.); limited to licensed or permitted vehicles or users; limited to BLM administrative use only; or other types of limitations. In addition, provide specific guidance about the process for managing motorized vehicle access for authorized, permitted, or otherwise approved vehicles for those specific categories of motorized vehicle uses that are exempt from a Limited designation (see 43 CFR 8340.0-5(a)(1-5).

At a minimum, the OHV area designation for wilderness study areas (WSAs) must be limited to ways and trails existing at the time the area became a WSA. Open areas within WSAs are appropriate only for sand dune or snow areas designated as such prior to

October 21, 1976. Existing roads, ways and trails must be fully documented and mapped. This applies to both motorized and mechanized transport (see Interim Management Policy and Guidelines for Lands Under Wilderness Review H-8550 (I.) (B.) (11) for mechanized transport). In addition, future designations may be made for a WSA if it is released from study.

Except as otherwise provided by law (e.g., the Alaska National Interest Lands Conservation Act), congressionally designated wilderness areas are statutorily closed to motorized and mechanized use. These areas should be shown in the land use plans along with the acreage affected.

Existing laws, proclamations, regulations or Executive orders may limit the use of the Open area designation or impose additional requirements relating to travel management in specific circumstances.

For RMP provisions related to national scenic, historic and national recreation trails, national backcountry byways, or other byway designations (see Appendix C, III. Special Designations).

Implementation Decisions

Complete a defined travel management network (system of areas, roads and/or trails) during the development of the land use plan, to the extent practical. If it is not practical to define or delineate the travel management network during the land use planning process, a preliminary network must be identified and a process established to select a final travel management network. Possible reasons for not completing the final network might be size or complexity of the area, controversy, incomplete data, or other constraints.

If the final travel management network is to be deferred in the RMP, then the RMP should document the decision-making process used to develop the initial network, provide the basis for future management decisions, and help set guidelines for making road and trail network adjustments throughout the life of the plan. The identification of the uncompleted travel management networks should be delineated in the land use plan and the following tasks completed for each area:

- 1) produce a map of a preliminary road and trail network;
- 2) define short-term management guidance for road and trail access and activities in areas or sub-areas not completed;
- 3) outline additional data needs, and a strategy to collect needed information;
- 4) provide a clear planning sequence, including public collaboration, criteria and constraints for subsequent road and trail selection and identification;
- 5) provide a schedule to complete the area or sub-area road and trail selection process; and
- 6) identify any easements and rights-of-ways (to be issued to the BLM or others) needed to maintain the preliminary or existing road and trail network.

If the decision on delineating travel management networks is deferred in the land use plan to the implementation phase, the work normally should be completed within 5 years of the signing of the ROD for the RMP.

At the implementation phase of the plan, establish a process to identify specific areas, roads and/or trails that will be available for public use, and specify limitations placed on use. Products from this process will include:

- 1) A map of roads and trails for all modes of travel.
- 2) Definitions and additional limitations for specific roads and trails (defined in 43 CFR 8340.0-5(g)).
- 3) Criteria to select or reject specific roads and trails in the final travel management network, add new roads or trails and to specify limitations.
- 4) Guidelines for management, monitoring, and maintenance of the travel network.
- 5) Indicators to plan maintenance, amendments, or revisions related to travel management network.
- 6) Needed easements and rights-of-ways (to be issued to the BLM or others) to maintain the existing road and trail network providing public land access.

In addition, travel management networks should be reviewed periodically to ensure that current resource and travel management objectives are being met (see 43 CFR 8342.3).

Notices, Consultations, and Hearings

No additional specific requirements exist.

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Appendix B

Select Access Provisions of Alaska National Interest Lands Conservation Act (ANILCA)

ANILCA Title VIII - Subsistence Management and Use

Access for Subsistence Uses

Section 811(a) *The Secretary[of the Interior] shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.*

811(b) *Notwithstanding any other provisions of this act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation.” (emphasis added)*

Subsistence access pursuant to ANILCA Section 811 is generally considered “open until closed” and limitations to access that may significantly restrict subsistence uses or cause substantial interference with access to subsistence sites will require compliance with the procedural requirements of ANILCA Section 810 *Subsistence and Land Use Decisions*.

Ideally subsistence uses, or lack thereof, and a history of traditionally employed surface transportation and routes will have been tentatively identified during creation of an RMP or in subsequent step down plans. This includes:

- Identifying subsistence uses (including hunting, fishing, trapping, berry picking, gathering and cutting firewood, and gathering other plant materials)
- Identifying traditional modes of access for these subsistence activities
- Addressing shifting subsistence resources may necessitate adjustments in the BLM transportation network
- Identifying reason(s) for closures (i.e. is causing an adverse impact on public health and safety; for resource protection; to protect historic or scientific values; subsistence uses; or other purposes or values for which the areas or units were created; or the conservation of endangered or threatened species)

Current use of OHVs for subsistence purposes does not necessarily equate to their having been traditionally employed, or that their current use is appropriate. If a restriction to access is going to be based on the fact that the access methodology is not traditional, it would be necessary to first document subsistence uses and traditional modes of access that was generally occurring at the passage of ANILCA. However, if specific, contemporary resource impacts are occurring, it is not necessary to first document traditional modes of access prior to imposing restrictions on OHV use.

If a restriction, limitation, or closure may significantly restrict subsistence uses, BLM will need to evaluate impacts on subsistence use as directed by BLM's Section 810 Compliance Policy. First, there must be a finding of whether or not the proposed action may have a significant restriction on subsistence uses. If there is a positive finding, a notice and public hearing, and a final determination are required before any significant restriction or closure can be implemented.

ANILCA Title XI – Transportation and Utility Systems In and Across, and Access Into, Conservation System Units

Special Access and Access to Inholdings

Sections 1110(a) & (b) applies to current and future conservation system units (wild and scenic rivers, wilderness areas, congressionally designated national trails), national recreation areas, and national conservation areas.

Section 1110(a) provides for the “*use of snowmachines (during periods of adequate snow cover, or frozen river conditions in the case of wild and scenic rivers), motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities... and for travel to and from villages and homesites.... subject to reasonable regulation.*” Closures and restrictions cannot be implemented without notice and hearing, and a finding that such use would be detrimental to the resource values of the unit or area (see Department of Interior (DOI) regulations at 43 CFR 36.11).

Section 1110(b) assures inholders “... *adequate and feasible access for economic and other purposes.... subject to reasonable regulations... to protect the natural and other values of such lands*” (see DOI regulations at 43 CFR 36.10).

ANILCA Title XIII – Administrative Provisions

Access to inholdings on general BLM land and not addressed by ANILCA Section 1110(b)

For general public lands managed by the Bureau of Land Management, ANILCA Section 1323(b) states: *Notwithstanding any other provision of law, and subject to such terms and conditions as the Secretary of the Interior may prescribe, the Secretary shall provide such access to nonfederally owned land surrounded by public lands managed by the Secretary under the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-82) as the Secretary deems adequate to secure to the owner the reasonable use and enjoyment thereof: Provided, that such owner comply with rules and regulations applicable to access across public lands.*”

Appendix C

Collecting Data with GPS

Once the transportation plan has been completed, the final route data will be stored in a single statewide geodatabase. To facilitate this, all GPS data going into the geodatabase must meet the requirements described below.

Although a wide range of GPS receivers can be used, many do not have the ability to store attribute information. For example, attribute data can be entered into a Trimble Mapping GPS receiver system; attribute data cannot be entered while using stand-alone Garmin Mapping Handheld GPS receivers. Users may choose any GPS receiver as long as meets the data requirements listed below. Just note that if a GPS receiver cannot store attribute data, then the user must collect the attribute data some other way while in the field, and then must enter that attribute data into the attribute table of the associated shape file.

Requirements for Adding GPS data to the Geodatabase

1. Data will be provided to the geodatabase:
 - as point, line or polygon shape files.
 - using the geographic coordinate system (latitude/longitude).
 - using the NAD⁷ 83 datum.
 - with metadata that is FGDC⁸ compliant (including at a minimum GPS manufacturer, receiver model, antenna model, data logger model, data collection software, method of differential correction).
 - that includes data for each route as required by the Interagency Trails Data Standards.
2. The accuracy goal is 10 meters, 2 drms⁹. However, in a challenging environment, it may be necessary to sacrifice the desired accuracy in order to collect any data. Therefore, receivers shall be configured and data collection techniques used, according to the manufacturers' specifications, to come as close as possible to achieving the desired accuracy. (Field personnel will not be asked to prove the accuracy of the data.)
3. Ultimately, features collected in the field will be represented by shape files with associated attribute tables. The structure and content of those tables must match the geodatabase. A Trimble Data Dictionary form will be provided that meets this requirement. If field personnel choose to use an alternative form created by Thales, CMT, ArcPad, etc., then they must ensure the results are compatible with the geodatabase.
4. Field personnel may decide to collect additional data. However, they are responsible for removing the additional data before the shape files are transferred to the Travel Management geodatabase.

⁷ North American Datum

⁸ Federal Geographic Data Committee

⁹ Distance Root Mean Square

Trimble Data Dictionary Content

Shape File	Feature Name ¹	Attribute Name ²	Attribute Value ³
Point	Administrative Site A site that is managed for administrative use located along a linear route.	Name	Pull-down menu of known names from FAMS
		NameOther	Text field for new names
		Comment	Text field
Point	Recreation Site A site that is managed for recreation use located along a linear route.	Name	Pull-down menu of known names from
		NameOther	Text field for new names
		Comment	Text field
Point	Bridges A foot or motorized vehicle bridge located along a linear route. (Centerpoint of bridge)	Name	Pull-down menu of known names from
		NameOther	Text field for new names
		Comment	Text field
Point	Authorized Site or Inholding An authorized use site or inholding located along a linear route. (Centerpoint of inholding)	Name	Text field
		Comment	Text field
Point	Visitor Facility	Visitor Facility Type	Pull-down menu of known names from
Point	Boundary Land Ownership or Area Boundary: Location along a linear route where land ownership changes.	Comment	Text field
Line	Trail	Trail_Name	Pull-down menu of known names from
		Trail_Name_Other	Text field for new names
		Trail_Type	Road Trail Primitive Road
		Trail_Surface	Asphalt Chunkwood Concrete Imported Compacted Material Imported Loose Materials Native Material Snow Water Other

¹Trimble’s export utility limits number of characters to 8. Best practices includes beginning name with a letter and using only alpha, numeric, dash, underscore, and no spaces.

²Trimble’s export utility limits number of characters to 10. Best practices includes beginning name with a letter and using only alpha, numeric, dash, underscore, and no spaces.

³Trimble’s data dictionary, for attribute values presented in a menu list, limits the number of characters to 20. Also, although it’s possible for the attribute value to appear as text on the datalogger and then appear as a code value in a GIS, Trimble limits the number of characters in the code to 6. Therefore, FAMS numbers can’t be entered as codes.

Appendix D

Alaska Transportation Assets in the Alaska Facility Asset Management System (FAMS)

This is a list of BLM assets related to transportation that included in the Alaska FAMS.

#	Office	FAMS#	BLM Roads
1	AFO	1810235	CTF BLM ACCESS ROAD
2	AFO	1817854	MCGRATH ADMIN ROAD
3	AFO	1810244	SCIENCE CENTER ACCESS ROAD
4	CYFO	178229	ARCTIC CIRCLE CG LOOP ROAD
5	CYFO	1817808	FINGER MOUNTAIN WAYSIDE ROAD
6	CYFO	1818161	GALBRAITH LAKE CG ACCESS ROAD
7	CYFO	1818105	MARION CREEK CG LOOP ROAD
8	CYFO	1818170	PROSPECT CREEK CG ACCESS ROAD
9	CYFO	1818171	PROSPECT CREEK CG LOOP ROAD
10	CYFO	1818177	SIXTY MILE CG ACCESS ROAD
11	CYFO	1818169	YUKON CROSSING ACCESS ROAD
12	EIFO	23034	AMERICAN CREEK ACCESS ROAD
13	EIFO	23002	BIEDERMAN ROAD
14	EIFO	192187	CHICKEN ADMIN ROAD
15	EIFO	1818278	CRIPPLE CREEK CG LOOP ROAD
16	EIFO	1834715	DAVIDSON DITCH ACCESS ROAD
17	EIFO	23006	EAGLE ADMIN ACCESS ROAD
18	EIFO	1824122	EAGLE CG ACCESS ROAD
19	EIFO	178335	EAGLE CG LOOP ROAD
20	EIFO	1818244	EAGLE SUMMIT ACCESS ROAD
21	EIFO	23005	FORT EGBERT MISSION CREEK ROAD
22	EIFO	1818106	FRED BLIXT CABIN ACCESS ROAD
23	EIFO	35878	FRYINGPAN CREEK ROAD
24	EIFO	178332	LOWER BIRCH CREEK ACCESS ROAD
25	EIFO	35876	MOOSE CREEK SPUR ROAD
26	EIFO	1818300	MT PRINDLE CG LOOP ROAD
27	EIFO	23055	NOME CREEK ADMIN SITE ACCESS ROAD
28	EIFO	23013	NOME CREEK ROAD—EAST
29	EIFO	23014	NOME CREEK ROAD—WEST
30	EIFO	1818303	OPHIR CREEK CG LOOP ROAD

#	Office	FAMS#	BLM Roads
31	EIFO	1823656	SOUTH FORK RIVER ACCESS ROAD
32	EIFO	35877	TWO-STEP LOUIS SPUR ROAD
33	EIFO	178164	UPPER BIRCH CREEK WAYSIDE ACCESS ROAD
34	EIFO	1824158	WALKER FORK CG LOOP ROAD
35	EIFO	1823104	WEST FORK CG LOOP ROAD
36	GFO	23056	BRUSHKANA CAMPGROUND LOOP ROAD
37	GFO	1834175	DELTA TAKE-OUT ROAD
38	GFO	178946	DELTA WAYSIDE ROAD
39	GFO	1818335	MIDDLE FORK TRAILHEAD ROAD
40	GFO	23009	PAXSON LAKE CAMPGROUND ACCESS ROAD
41	GFO	1827037	SOURDOUGH CG BOAT RAMP ROAD
42	GFO	1827043	SOURDOUGH CG LOOP ROAD
43	GFO	1818338	SWEDE LAKE TRAILHEAD ROAD
44	GFO	1818007	TANGLE LAKES CG LOOP ROAD

#	Office	FAMS#	BLM Trails
1	AFO	1834403	CTF BIRCH KNOB TRAIL
2	AFO	1834412	CTF BIRCH MEADOW TRAIL
3	AFO	1834050	CTF COYOTE RAIL
4	AFO	1834414	CTF DOGSLED TRAIL SYSTEM
5	AFO	1834052	CTF LORE TRAIL
6	AFO	1834053	CTF LYNX TRAIL
7	AFO	1834405	CTF MOOSE MEADOW TRAIL
8	AFO	1834049	CTF MOOSE TRACK TRAIL
9	AFO	1834407	CTF OLD RONDY TRAIL
10	AFO	1834055	CTF P-38 TRAIL
11	AFO	1834954	CTF VIEWPOINT TRAIL
12	AFO	35880	IDITAROD NATIONAL HISTORIC TRAIL
13	CYFO	1824702	ARCTIC VISITOR CENTER TRAIL
14	CYFO	1824701	FINGER MOUNTAIN TRAIL
15	CYFO	1834717	GRAYLING LAKE TRAIL
16	CYFO	1834758	YUKON RIVER CROSSING TRAIL
17	EIFO	35971	BACHELOR CREEK TRAIL
18	EIFO	23039	BEAR CREEK TRAIL
19	EIFO	23018	BIG BEND TRAIL
20	EIFO	1834743	BIRCH CREEK TRAIL

#	Office	FAMS#	BLM Trails
21	EIFO	23016	CACHE MOUNTAIN LOOP TRAIL
22	EIFO	23017	CARIBOU BLUFF CABIN SPUR TRAIL
23	EIFO	35954	CHICKEN DREDGE TRAIL
24	EIFO	23019	COLORADO CREEK TRAIL
25	EIFO	1834777	CRIPPLE CREEK CAMPGROUND TRAIL
26	EIFO	1834742	EAGLE SUMMIT INTERPRETATION TRAIL
27	EIFO	23058	ELEAZAR'S CABIN SPUR TRAIL
28	EIFO	1827732	FORT EGBERT CAMPGROUND TRAIL
29	EIFO	23008	FORT EGBERT HOSPITAL TRAIL
30	EIFO	1827730	FORT EGBERT OFFICER ROW TRAIL
31	EIFO	35953	FORT EGBERT WATERLINE TRAIL
32	EIFO	1827731	FORT EGBERT WATERWAGON TO HOSPITAL RUINS TRAIL
33	EIFO	1827728	FORT EGBERT WATERWAGON TRAIL
34	EIFO	23049	FOSSIL CREEK TRAIL
35	EIFO	35949	FOSSIL GAP TRAIL
36	EIFO	35950	LOWER NOME CREEK TRAIL
37	EIFO	23024	MCKAY CREEK TRAIL
38	EIFO	35967	MISSION CREEK TRAIL
39	EIFO	35946	MOOSE CREEK TRAIL
40	EIFO	35951	MT PRINDLE TRAIL
41	EIFO	23021	PINNELL MOUNTAIN NATIONAL RECREATION TRAIL
42	EIFO	23038	QUARTZ CREEK TRAIL
43	EIFO	35973	SEVENTYMILE TRAIL
44	EIFO	35944	SKI LOOP TRAIL
45	EIFO	35968	SOUTH FORK TRAIL
46	EIFO	35947	SUMMIT TRAIL
47	EIFO	23042	TABLE TOP MOUNTAIN TRAIL
48	EIFO	23022	TRAIL CREEK TRAIL
49	EIFO	35945	WICKERSHAM CREEK (OLD) TRAIL
50	EIFO	23048	WICKERSHAM CREEK TRAIL
51	EIFO	23050	WINDY CREEK TRAIL
52	EIFO	35952	YUKON QUEST TRAIL
53	GFO	1824242	54 MILE TRAIL
54	GFO	35883	BERNARD CREEK TRAIL
55	GFO	35925	BRUSHKANA CREEK SOUTH TRAIL
56	GFO	35924	BRUSHKANA CREEK TRAIL

#	Office	FAMS#	BLM Trails
57	GFO	35916	BUTTE CREEK TRAIL
58	GFO	1824240	BUTTE CREEK TRAIL
59	GFO	35910	CHISTOCHINA RIVER TRAIL
60	GFO	35919	CLEARWATER CREEK SOUTH TRAIL
61	GFO	35888	COPPER RIVER TRAIL
62	GFO	35920	CORKSCREW CREEK TRAIL
63	GFO	1824237	DICKEY LAKE TRAIL
64	GFO	1824239	DRY LAKES TRAIL
65	GFO	35927	EDMONDS CREEK TRAIL
66	GFO	35892	EWAN LAKE TRAIL
67	GFO	35941	FIFTYNINE MILE CREEK TRAIL
68	GFO	35936	FISH LAKE TRAIL
69	GFO	35940	FOURTH OF JULY CREEK TRAIL
70	GFO	35890	FOX LAKE TRAIL
71	GFO	35934	GAKONA RIVER TRAIL
72	GFO	35898	GILLESPIE LAKE TRAIL
73	GFO	35913	GULKANA MP 141 TRAIL
74	GFO	1824241	GUNN CREEK TRAIL
75	GFO	35896	HAGGARD CREEK TRAIL
76	GFO	35921	HATCHET LAKE TRAIL
77	GFO	35908	HUDSON LAKE TRAIL
78	GFO	35928	JACK CREEK TRAIL
79	GFO	35897	JUNE LAKE TRAIL
80	GFO	35909	KLUTINA LAKE TRAIL
81	GFO	35902	LANDMARK GAP SOUTH TRAIL
82	GFO	35889	LIBERTY FALLS TRAIL
83	GFO	35906	MACLAREN RIVER ROAD TRAIL
84	GFO	35911	MANKOMEN LAKE TRAIL
85	GFO	35899	MIDDLE FORK TRAIL
86	GFO	35930	MILE 152 WEST TRAIL
87	GFO	35933	MILE 174 EAST TRAIL
88	GFO	1824238	MILE 87.6 TRAIL
89	GFO	35893	OLD BEAVER DAM TRAIL
90	GFO	35929	OLD RICHARDSON TRAIL
91	GFO	35935	ONE MILE CREEK/WOLVERINE MTN TRAIL
92	GFO	35904	OSAR LAKE TRAIL

#	Office	FAMS#	BLM Trails
93	GFO	35894	POPLAR GROVE/GULKANA TRAIL
94	GFO	35931	ROUND TOP TRAIL
95	GFO	35912	SAILOR'S PIT TRAIL
96	GFO	35926	SEATTLE CREEK TRAIL
97	GFO	1827594	SOURDOUGH CG LOOP TO FISHING AREA
98	GFO	1827593	SOURDOUGH CG CREEK OVERLOOK TO CABANA
99	GFO	1827596	SOURDOUGH CG MAIN TRAIL SPUR TO BOAT RAMP
100	GFO	1827595	SOURDOUGH CG MAIN TRAIL SPUR TO WATER BLDG
101	GFO	1827592	SOURDOUGH CG W CG LOOP TO E CG LOOP
102	GFO	1827590	SOURDOUGH CG WATER BLDG TO CG LOOP
103	GFO	1827591	SOURDOUGH CG WATER BLDG TO CPU TO W CG LOOP
104	GFO	23011	SOURDOUGH CREEK TRAIL
105	GFO	35915	SOURDOUGH/ EWAN LAKE TRAIL
106	GFO	35932	SPRING LAKE TRAIL
107	GFO	35917	SUSITNA OVERLOOK TRAIL
108	GFO	35900	SWEDE LAKE TRAIL
109	GFO	35895	TELEGRAPH CUT TRAIL
110	GFO	35914	TIGER MINE TRAIL
111	GFO	35939	TONSINA LAKE TRAIL
112	GFO	35887	TONSINA RIVER TRAIL
113	GFO	35938	TOP-OF-THE-WORLD TRAIL
114	GFO	35937	TWELVE MILE CREEK TRAIL
115	GFO	35923	VALDEZ CREEK TRAIL
116	GFO	35922	WINDY CREEK TRAIL

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Appendix E

Program Guidance

WO - INSTRUCTION MEMORANDUMS Related to Recreation and/or Transportation

Current BLM Instruction Memorandums and Information Bulletins can be downloaded at web.blm.gov/internal/wo-500/Directive_Mgt.html. These are some of the national directives related to transportation. If viewing on the Internet, click on the directive name to view the document.

2009

- Identification of Roads for the Reauthorization of the Federal Surface Transportation Program (FSTP) or more commonly known as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
- Implementation of Roads and Trails Terminology Report – Classification of Primitive Roads
- Guidance on Preparing *Federal Register* Notices

2008

- Road Maintenance Agreements
- Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU), Transportation Planning Project Proposals; DD: 04/14/2008
- Guidance for Signing When Implementing Comprehensive Travel and Transportation Management Planning
- Checklist of Recreation Program Considerations for Inclusion in BLM Resource Management Plans (RMPs)/Environmental Impact Statements (EISs)
- Addressing National Recreation Trails in the Land Use Planning Process
- Clarification of Guidance and Integration of Comprehensive Travel and Transportation Management Planning into the Land Use Planning
- Implementation of Executive Order 13443, Facilitation of Hunting Heritage and Wildlife Conservation

2007

- Recording Interpretive Facilities in the Recreation Management Information System (RMIS)
- Temporary Route Definition
- Notice of Proposed Rulemaking (NPRM) – Accessibility Guidelines for Outdoor Developed Areas (Trails, Picnic Areas, Campgrounds, Beaches)
- Implementation of the National Landscape Conservation System Science Strategy
- Use of Permanent Fixed Anchors for Climbing in Designated Wilderness Areas Managed by BLM
- Review of Lessons Learned, Kim Family Incident
- Federal Lands Hunting, Fishing and Shooting Sports Roundtable Memorandum of Understanding
- Federal Lands Recreation Enhancement Act (REA) -- Final Public Participation Policy for Certain Recreation Fee Adjustments and Proposed New Fee Sites/Areas

2006

- Implementation of Roads and Trails Terminology Report
- Public Notification of Fee Expenditures and Displaying the New Fee Logo
- Consultation on Proposed Improvements to R.S. 2477 Rights-of-Way
- Non-Binding Determinations of R.S. 2477 Right-of-Way
- Recreation and Cultural Interest Area Symbols
- National Spatial Data Layer for Areas of Critical Environmental Concern (ACEC) DD: 05/31/06
- National Spatial Data Layer for Visual Resource Management (VRM) DD: 05/15/2006
- Interim Approval Guidelines for Certain Recreation Fee Increases and Proposed New Fee Sites/Areas
- Incorporating Benefits-Based Management within Recreation and Visitor Services Program Policy Changes
- Reduction or Waiver of Rent For A Right-Of-Way (ROW) Grant Associated With A Valid Federal Authorization For Which The United States is Already Receiving Compensation

2005

- New LR 2000 Action Codes for Tracking Rights-of-Way (ROW) under the new ROW Regulations
- Standard Sign Design for Use at Bureau of Land Management (BLM)/Forest Service (FS) Collocated
- Interim Approval Guidelines for Recreation Fee Increases
- BLM's National Policy and Strategies for Involvement with Stakeholder Working Groups (Alternative Dispute Resolution (ADR) - based Collaborative Community Working Groups) on Natural Resources Issues within the Parameters of the Federal Advisory Committee Act (FACA)
- Film Permit Rental Fees - New Subactivity 5441
- Interim Policy – Utilization of Off-Road Vehicles (ORVs)
- Bureau of Land Management Cave Safety Standards
- Geocaching Activities on Bureau of Land Management (BLM) Public Lands
- Federal Lands Recreation Enhancement Act, H.R. 4818, Interim Recreation Fee Guidelines for the Bureau of Land Management DD: 03/11/2005; DD: 04/01/2005
- Automatic Fee Adjustment for Special Recreation Permits (SRP)

2004

- Clarification of Policy in the BLM Manual Section 8351, Wild and Scenic Rivers, with Respect to Eligibility Criteria and Protective Management
- Interim Policy, Implementing the Revised Rule for Special Recreation Permits Term Length
- Revisions and Clarifications to H-8550-1, Interim Management Policy for Lands Under Wilderness Review, as it Relates to Wildlife
- Commercial Filming on Public Lands - Implementation of Public Law 106-206
- Activation P.L. 107-325: Old Spanish National Historic Trail
- Clarification of OHV Designations and Travel Management in the BLM Land Use Planning Process DD: Effective Upon Receipt

2003

- Consideration of Wilderness Characteristics in Land Use Plans (Excluding Alaska)
- Consideration of Wilderness Characteristics in Land Use Plans (Excluding Alaska)

- BLM Implementation of the Settlement of Utah v. Norton Regarding Wilderness Study
- All Terrain Vehicle Loading and Transport Procedures for Pick-ups
- Guidelines for Reporting Recreation Visitation
- Assignment of Subject Code 2930 – Recreation Permits
- Rescission of National Level Policy Guidance on Wilderness Review and Land Use Planning
- Geocaching Activities on BLM Public Lands
- BLM Internal Review of Draft National Interagency Trail Data Standards

2002

- Purpose and Use of Recreation Fee Revenues and Related Appropriated Recreation Funds
- Internal Review of Initial Draft of the National Mountain Bicycling Strategic Action Plan DD: 07/26/2002
- Right-of-Way (ROW) Management–Land Use Planning
- Right-of-Way (R/W) Rental Policy
- Trail Contacts and Development of the National Trails Program in FY 2002 DD: 05/03/2002
- Automatic Fee Adjustment for Special Recreation Permits (SRP)
- Change in Recreation Management Information System Data Base for tracking Off-Highway Vehicle (OHV) Use Designations DD: 04/01/2002; 04/20/2002
- Geocaching Activities on BLM Public Lands
- Interim Management Policy for Bureau of Land Management National Monuments and National Conservation Areas

2001

- Management of Backcountry Airstrips
- Guidelines for Reporting Recreation Visitation DD: 09/30/2001
- Planning Guidance for National Monuments and National Conservation Areas

2000

- Use of Visual Resource Management Class I Designation in Wilderness Study Areas

**W0 - INFORMATION BULLETINS
Related to Recreation and/or Transportation**

2008

- Bureau of Land Management (BLM) 2008 Visitor Satisfaction Survey
- Travel and Transportation Management, Planning and Conducting Route Inventories, Technical Reference 9113-1

2007

- Use of New Categorical Exclusions (CX) for Transportation and Recreation Management Actions
- Publication and Availability of Planning and Managing Environmentally Friendly Mountain Bike Trails under Shamano America Bureauwide Memorandum of Understanding

2006

- Memorandum of Understanding with the National Speleological Society and the Cave Research Foundation
- Toolbox for the Great Outdoors, Second Edition
- Bureau of Land Management 2007 Visitor Satisfaction Survey DD: 08/18/2006
- “Get Fit with US” Memorandum of Understanding (MOU)
- Distribution of Leave No Trace Outdoor Ethics Heritage Hang Tags

2005

- Council on Environmental Quality (CEQ) Guidance on Cumulative Effects Analysis
- Strategy for Issuing Right-of-Way Authorizations for “Earthscope” Facilities

2004

- Visual Resource Management (VRM) and Fluid Minerals DD: 03/31/2004
- Establishment of a Recreation and Visitor Services Advisory Team
- May 2003 Document Titled The BLM’s Priorities for Recreation and Visitor Services (BLM Workplan Fiscal Years 2003-2007)
- New BLM Recreation Guide: Adventures on America’s Public Lands

Appendix F

Technical Guidance

A variety of data and research has been published by public and private organizations about the effects OHV use on the environment. The following websites and references are sources of OHV-related data and research. This information can be useful in understanding and assessing the effects of travel management proposals, including area and route designations.

American Trails (americantrails.org)

National Off-Highway Vehicle Conservation Council, Inc. (www.nohvcc.org)

Wildlands Center for the Prevention of Roads (www.wildlandsepr.org)

This appendix contains references to websites, documents, and other sources to assist managers in designing trails. The majority of sources are for designing individual trails, but may also be used for designing a trail system. This information is particularly useful for trail construction and reconstruction projects.

Forest Service Standard Specifications for Construction and Maintenance of Trails (GPO EM 7720-103)

Standard Drawings for Construction and Maintenance of Trails (GPO EM 7720- 104) (CAD drawings may be found at this website: www.fs.fed.us/ftp/ftproot/pub/acad/dev/trails/trails.htm)

Missoula Technology and Development Center (MTDC)

USFS Missoula, Montana (fsweb.mtdc wo.fs.fed.us/index.html) 5785 Hwy 10 West, Missoula, MT 59808, Phone: 406-329-3900, Fax: 406-329-3719.

General Publications

- *ATV Trail Work on the Allegheny National Forest*, 2000. 0171 3804. Engineering Field Notes: Volume 33, Issue January-June. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering, 2001.
- *Low-Volume, Low-Cost Trail Bridges*. 1988. 8871 3836. Engineering Field Notes: Volume 20 Issue July-August. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering.
- Kattell, John. *Packable Trail Bridges*. 2003. 0371 3817. Engineering Field Notes: Volume 35 Issue 2. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering. 6 p.
- *Barrier-Free Accessible Trail Surface Materials, Northern Region Materials Engineering Investigations*. 1993. 9371 3839. Engineering Field Notes: Volume 25 Issue September-October. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering.

- *Trail Hardening Test*. 1991. 9171 3816. Engineering Field Notes: Volume 23 Issue May-June. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering.
- *Helicopters and Trail Bridges: The Treasure Falls Project*. 1989. 8971 3831. Engineering Field Notes: Volume 21 Issue July-August. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering.
- *Low-Volume, Low-Cost Trail Bridges*. 1988. 8871 3836. Engineering Field Notes: Volume 20 Issue July-August. Washington D.C.: U.S. Department of Agriculture, Forest Service, Engineering.
- *Purchase Description for Morrison Trailblazer and Missoula Equipment Development Center Modifications*. 1976. 7671 2806. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center.
- Eriksson, Merv. *Trail Bridge Catalog*. 2000. 0023 2W01. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. The Trail Bridge Catalog Web site is intended to help land managers and engineers select trail bridge types, decks, rail systems, abutment systems, and materials. The site is divided into five sections: Trail Bridge Types, Trail Bridge Decks, Trail Bridge Rail Systems, Trail Bridge Abutments, and Trail Bridge Materials. The Trail Bridge Types, Decks, Rail Systems, and Abutments sections contain sketches, pictures, example and/or standard drawings, and guidelines for appropriate use with the USDA Forest Service Recreation Opportunity Spectrum (ROS) classifications. Standard drawings, or example drawings, are intended for informational purposes only.
- *Trails in Wet Areas Turnpike and Puncheon Construction*. 1994. 9423 2V01. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center.
- *Surface Water Control Techniques for Trail Maintenance*. 1992. 9223 2V01. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center.
- Meyer, Kevin G. *Managing Degraded Off-Highway Vehicle Trails in Wet, Unstable, and Sensitive Environments*. 2002. 0223 2821. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 48 p. Describes techniques that have been used to manage off-highway vehicle trails in Alaska. The report explains why off-highway vehicle trails become degraded and suggests management options to prevent degradation. The report also discusses the results of tests comparing different options for hardening off-highway vehicle trails. Appendices provide installation instructions for porous pavement panels and a list of locations where trail-hardening systems are being tested in cooperation with the National Park Service Rivers, Trails, and Conservation Assistance program.
- Steinholz, Robert T.; Vachowski, Brian. *Wetland Trail Design and Construction*. 2001. 0123 2833. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 90 p. Describes materials and techniques used to construct trails in wetlands. This manual is written primarily for workers who are inexperienced in wetland trail

construction, but it may also be helpful for experienced workers. Techniques suitable for wilderness settings and for more developed settings are included. Drawings by the author illustrate all important points. A glossary is included, as are appendixes with material specifications.

- Monlux, Steve; Vachowski, Brian. *Geosynthetics for Trails in Wet Areas*, 2000 Edition. 0023 2838. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. Geosynthetics are synthetic materials that are used with soil or rock in many types of construction. They perform three major functions: separation, reinforcement, and drainage. This report describes several types of geosynthetics; explains basic geosynthetic design and utilization concepts for trail construction in wet areas; and provides geosynthetic product information. Detailed product specifications and procurement sources are listed.

Miscellaneous Reports and Publications

- *The Trail Construction and Maintenance Notebook*, a 139-page compendium of handy trail information, remains our most requested title. Hesselbarth, Woody; Vachowski, Brian. 2000. Trail Construction and Maintenance Notebook 2000 Edition. 0023 2839P. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 139 p. This notebook describes techniques used to construct and maintain trails. It is written for trail crew workers and is intended to be taken along on work projects. Numerous illustrations help explain the main points. The notebook was printed in 1996 and has been revised slightly during two reprintings. Revisions in this edition update references and reflect minor editorial changes.
- Bergmann, Roger. 2000. *Soil Stabilizers On Universally Accessible Trails*. 0023 1202. San Dimas, CA: U.S. Department of Agriculture, Forest Service, San Dimas Technology and Development Center. The Americans with Disabilities Act Accessibility Guidelines state that ground and floor surfaces should be firm, stable, and slip-resistant. This publication provides field personnel with the results of soil stabilizers on universally accessible trails. The study areas were the Wood River Accessible Fishing Site and Day Use Area on the Winema National Forest and the Bell Rock Pathway on the Coconino National Forest. Seven types of trail surfacing products are discussed.
- Vachowski, Brian. 1998. *Off-Highway Trail and Road Grading Equipment*. 9823 2837. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. Describes light-duty grading equipment that can be pulled by an all-terrain vehicle to maintain wide trails and roads. Three pieces of equipment were tested on a sandy motorcycle trail and a trailhead access road in the Francis Marion National Forest in South Carolina: a modified trail rock rake, a trail drag, and a commercial product, the Ultra Light Terrain Grader. All three pieces of equipment removed the washboards in the sandy soil. Narrower equipment would have worked better on trails. The equipment worked very well on roads and offers an affordable alternative to heavier graders for light-duty use. Other trail-grading accessories and drags for small tractors are also described.
- Vachowski, Brian. 1998. *Cattle Guards for Off-Highway Vehicle Trails*. 9823 2826. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. Describes four cattle guards that can be used to replace gates for off-

highway vehicle trails. Drawings and photos of the cattle guards are included. Cattle guards prevent the perennial problem of gates being left open.

- Didier, Steve; Herzberg, Diane. 1996. *Stock-Drawn Equipment for Trail Work*. 9623 2802. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. Includes photos of stock-drawn plows and grading equipment that can be used to build and maintain trails in the backcountry. Describes the advantages and disadvantages of different types of equipment. Includes sources where the equipment can be purchased.
- Hallman, Richard. 1988. *Handtools for Trail Work*. 8823 2601. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center.
- 1994. *Trail Maintenance Notebook: Wet Areas*. 9423 2846. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center.
- 1980. *Trail Deterioration and Maintenance*. 8023 2404. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center.

WESTERN TRAIL BUILDERS (www.trailbuilders.org/contact.html)

- *Trails Design and Management Handbook* by Troy Scott Parker. Unlike the other books in this section, this publication is full of detailed yet widely applicable specifications for multiple use concrete/asphalt trails and crushed stone trails. Commissioned by the Pitkin County (near Aspen, Oregon) Open Space and Trails Program, it is useful nationwide because it was written not for any particular trail, but rather for trails yet to be conceived on lands yet to be obtained. As such, and because it is a Pitkin County ordinance by reference, it had to be detailed enough to design and build anything that could arise in future years. Widely circulated throughout the United States and Canada, it is considered the most detailed technical specification in existence for concrete, asphalt, and crushed stone trails and associated trail structures such as bridges, boardwalks, retaining walls, dual treadways, and more. Written in 1994, the Handbook is still in use without ever having needed to be updated. Besides being richly detailed and created with an eye for crafting a quality trail experience, it is clearly written. It also contains sections of unique and concise planning guidelines and a checklist based on those guidelines. 230 pages, 8.5 inches by 11 inches, hundreds of line drawings. [Download the introduction and table of contents as a PDF file](#) (143K, readable with Adobe Acrobat Reader) at Western Trailbuilders' website. Available from the Pitkin County Open Space and Trails Program, 530 E. Main Street, Aspen, CO 81611, telephone: 970-920-5232, fax: 970-920-5198.
- *Recreational Trail Design and Construction* by David M. Rathke and Melvin J. Baughman. A remarkably concise and easy-to-read 28-page 8.5-inch by 11-inch booklet on natural surface trails. The book is meant as an introduction to trails for private landowners and land managers who are just learning about sustainable trails and serves admirably for this purpose. It has basic information on many aspects of the planning process and line drawings of common and uncommon trail structures. Copies are available from the Minnesota Extension Service, University of Minnesota Distribution Center, Room 20, Coffey Hall, 1420 Eckles Avenue, University of Minnesota, St. Paul, MN 55108-6069, Fax: 612-625-2207.

- *Lightly on the Land: The SCA Trail-Building and Maintenance Manual* by Robert C. Birkby. This 268-page, 7-inch by 9-inch perfect-bound book was designed for crew leaders and crew members of Student Conservation Association trail crews, but it was also created and mass-marketed for the entire trail community. Chapter titles include Trails; Crew Leadership; Camping with Work Crews; Safety; Tools, Crosscuts and Chain Saws; Measuring Distances, Grades, and Heights; Trail Survey and Design; Trail Construction; Trail Drainage; Trail Maintenance; Building with Rock; Felling and Bucking; Building with Timber; Bridge Construction; Revegetation and Restoration; Rigging; Knots; and History of the SCA Work Skills Program. As opposed to merely providing simple drawings of how things should look when finished, this book emphasizes tools, process, and techniques for trail work, camping, and crew leadership. Covers natural surface trails only, has many line drawings. Light on the art of trail design. Available from amazon.com.
- *The Complete Guide to Trail Building and Maintenance*, 3rd Edition, by Carl Demrow and David Salisbury. Updated in 1998, this 256-page, 6-inch by 9-inch perfect-bound book is a trail library basic. Chapters include Safety and Preparation: Work Safe, Work Smart; What Is a Trail?; Trails on Private Land; New Trail Layout and Construction; Trail Maintenance; Building Materials for Trail Reconstruction; Erosion Control and Trail Reconstruction; Bridges and Stiles; Cross-Country Ski Touring Trails; Tool Use and Care; and Developing and Using Trail Maintenance Inventories, plus appendices on first aid kits and suppliers of tools, equipment, and materials for trail work. The book was developed by the Appalachian Mountain Club for workers and stewardships on the Appalachian Trail, but has been widely used for natural surface trails by trailbuilders everywhere for years. The book has line drawings and photos. Emphasizes trail structures over trail design techniques. Available from amazon.com.
- *Trails for the Twenty-First Century: Planning, Design, and Management Manual for Multi-Use Trails*, 2nd Edition, by Charles A. Flink, Kristine Olka, and Robert M. Searns. Updated in 2001, this book serves as an introduction to the myriad issues of multiple-use trails with a heavy emphasis on rail trails. It is a good primer for communities and activists wanting to establish rail trails, but there is not enough information here to fully design such trails. Chapters include Getting Started (the relationship of the trail to the local community and site considerations); Planning and Public Involvement (trail planning, designing in-house or by an outside contractor, public involvement); Designing Your Trail (users, trail cross sections, challenging areas (brief), bridges and railings (brief), tunnels, road crossings, signs, support facilities, wildlife issues, landscaping, history, making your trail unique); Building Your Trail (land acquisition, compliance with permitting, funding sources, public-private partnerships); Managing and Maintaining Your Trail (who should manage, management for user safety, maintaining good relations, developing a fee structure, joint ventures within the corridor, protecting trail in the face of change, developing comprehensive budget and management plan); and Maximizing Your Trail's Potential (promotion and marketing, media, publications, website, citizen support). 230 pages, 11 inches by 8.5 inches, perfect-bound, with line drawings, photos, and annotated resources. Sponsored by the Rails-to-Trails Conservancy. Available from amazon.com.

NATIONAL OFF HIGHWAY VEHICLE CONSERVATION COUNCIL (NOHVCC)

(www.nohvcc.org) 4718 S. Taylor Drive, Sheboygan, WI 53081

Phone: 1-800-348-6487 Fax: 1-920-458-3446

OHV Trail Construction and Maintenance

The following resources are on file at the NOHVCC home office. They will be glad to send you a copy for the cost of reproduction. In certain cases, they will put you in contact with the publisher for an original copy. For more information on available resources, go to trailhead@nohvcc.org or call the home office at 800-348-OHVS (6487). Please provide your full name and mailing address and catalog numbers.

- T0001 - *Tractor Techniques for Trail Bed Preservation*. Hamilton, Nora, 1991, USDA Forest Service, 7-page description of effective tractor techniques for trail bed design.
- T0003 - *Recreation Trail Maintenance*. Clift, Don et al, 1985, Washington DNR, 24-page guide to practical guidelines for routine trail maintenance.
- T0005 - *Handtools for Trail Work*. Hallma, Richard, 1988, USDA Forest Service, 60-page review of hand tools used for trail work.
- T0009 - *Planning Trails With Wildlife in Mind*. MacDonald, Stuart, 1998, Oregon State Parks, 51-page book on designing trails and trail systems with wildlife in mind.
- T0010 - *OHV Trail Hardening Study*. Gusey, Daryl, 1991, Washington Interagency Committee for Outdoor Recreation, 39-page study on OHV trail hardening techniques and their effectiveness.
- T0011 - *Trail Maintenance: An Outline for Developing a Practical Maintenance Plan*. Lockwood, Cam, 1984, USDA Forest Service. A comprehensive outline for developing a practical trail maintenance plan.
- T0012 - *Trails 2000: A Trail Construction and Maintenance Update*. Lockwood, Cam, 1996, USDA Forest Service, 32-page guide to the current tools and techniques for trail construction and maintenance.
- T0013 - *Rockmart Signs and Markers Catalog*. Rockmart Signs, 1998, Rockmart Signs and Markers, 27-page catalog of trail signage and markers.
- T0014 - *A Guide to Off-Road Motorcycle Trail Design and Construction*, 2nd Edition. Wernex, Joe, 1993, American Motorcyclist Association, 56-page guide to OHM trail design and construction.
- T0015 - *Introduction to Basic Trail Maintenance*. Padilla, Frank, 1990, CA Parks and Recreation, 50-page review of trail design and construction techniques.
- T0020 - *Boulder Buster: Breaking Rocks without Explosives*. Kilroy, Bill, 1998, Missoula Technology and Development Center, 10 page booklet on breaking boulders.
- T0021 - *OHV Trail and Road Grading Equipment*. Vachowski, Brian, 1998, Missoula Technology and Development Center, 20-page booklet on OHV trail gadding equipment.
- T0029 - *Motorcycle Farm*. Jaquish, Orin and Jeffrey Loser, 1973, Soil Conservation, 2-page article from July 1973 issue of Soil Conservation Mag. About Motomecca OHV park.

- T0030 - *Motorcycle Area Design and Location: Impacts on the Recreational Experience of Riders and Nonriders*. Bury, Richard L, *et al.*, 1975, 8-page study on effects of motorcycle riding area adjacent to campgrounds.
- T0032 - CD-ROM: *Off-Highway Motorcycle and ATC Trails Guidelines*. Wernex, Joe 2001; AMA CD-ROM 2001 edition of the Wernex trail construction manual +E43.
- T0033 - *Trails for the Twenty-First Century*. Flink, Carla, *et al.* 2001; Rails-to-Trails Conservancy. 202-page book on planning, design, and management for multi-use trails.
- T0034 - *Designing Sidewalks and Trails for Access, Part II*. Kirschbaum, J., *et al.* 2001; FHWA 350-page book; Best Management Practices Design Guide for Accessibility.
- T0035 - *Installation Guide: Slab-Plank Boardwalk*. Meyer, Kevin. 2002; NPS, 6 pages on slab plank boardwalk utilizing spruce as trail-hardening material.
- T0036 - *Installation Guide for Porous Pavement Panels*. Meyer, Kevin. 2002; NPS, 13 pages on installing porous pavement panels as a trail-hardening material for OHV trails.
- T0037 - *Trail Design*. Uhles, Steve. 2002; Cloud Peak Trail Services, 5-page PowerPoint presentation on elements of successful trail design.
- T0040 - *Wetland Trail Design and Construction*. Vachowskii, B., *et al.* 2001; USDA Forest Service, 82-page manual describing techniques for building a wetland trail.
- T0041 - *Trail Sustainability Checklist*. NPS 2001; 1-page checklist to use as a guide for making your trail sustainable.

WEB SITES FOR FURTHER INFORMATION

- nohvcclibrary.forestry.uga.edu
- www.trailbuilders.org/resources/books1.html
- www.americantrails.org/nttp/USFSnttp.html
- www.fs.ed.us/ftpoot/pub/acad/dev/trails/trails.html
- www.ama-cycle.org
- www.imba.com

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Appendix G

Definitions of Terms

Adaptive Management: A system of management practices based on clearly identified outcomes, including monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are either met or the outcomes are re-evaluated. Adaptive management recognizes that knowledge about natural resource systems is sometimes uncertain, making this the preferred method of management in those cases.

Assets: Engineering term used to describe building and non-building facility and transportation constructions that include roads, primitive roads, and trails that are included in the Facility Asset Management System (FAMS). Assets are maintained through the annual maintenance and deferred maintenance programs. (See the “Roads and Trails Terminology Report” at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2006.Par.69739.File.dat/im2006-173attach2.pdf).

- **Road:** A linear route 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 Road:** A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards. Unless specifically prohibited, primitive roads can be used for hiking, biking, horses, etc.
- **Trail:** A linear route managed for human-powered, stock, or off-road vehicle forms of transportation or for historic or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Benefits Based Management (BBM): The on-going process by leisure service providers to identify desirable individual, social, economic, and environmental benefits derived from recreation experiences.

Casual Use: Any short-term non-commercial activity that does not cause appreciable damage or disturbance to the public lands, their resources or improvements, and is not prohibited by closure of the lands to such activities. See 43 CFR 2920.0-5(k).

Closed OHV Designations: The term “Closed” means an area or trail where off-road vehicle use is prohibited, except where authorized by the BLM. See 43 CFR 36.10-13 and 8342.1.

Cooperating Agency: Assists the lead federal agency in developing an EA or EIS. The Council on Environmental Quality regulations implementing NEPA define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any federal, state, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

Comprehensive Travel and Transportation Management: Comprehensive travel management planning should address all resource use aspects (such as recreational, traditional, casual, industrial, commercial and educational) and accompanying modes and conditions of travel on the public lands, not just motorized or off-highway vehicle activities. Travel management areas (polygons) should be delineated in the RMP. Identify acceptable modes of access and travel for each travel management area (including over-land, over-water, over-snow and fly-in access [remote airstrips and floatplanes]).

In developing travel management areas, consider the following:

- a. Consistency with all resource program goals and objectives;
- b. Primary travels;
- c. Objectives for allowing travel in the area;
- d. Setting characteristics that are to be maintained (including recreation opportunity spectrum and VRM settings); and
- e. Primary means of travel allowed to accomplish the objectives and to maintain the setting characteristics.

Environmental Assessment (EA): An Environmental Assessment is compiled to determine the need for an EIS. The assessment is a formal process used to predict the environmental consequences of any development project.

Environmental Impact Statement (EIS): The National Environmental Policy Act (NEPA) requires consideration and disclosure of environmental and socio-economic impacts associated with any proposed action. The analysis will be documented in an EIS. The EIS will identify potential impacts that implementation of the RMP could have on the environment and identify appropriate measures to mitigate those impacts.

Facility Asset Management System (FAMS): The BLM's national database that tracks asset inventory and maintenance needs. This database is for all BLM building and non-building engineered and "Constructed" Assets, not just transportation assets, and does not generally include non-constructed assets such as human-made linear features and disturbances that are not part of the BLM's transportation network.

Implementation Plan: A site-specific plan written to implement decisions made in a land use plan. An implementation plan usually selects and applies best management practices to meet land use plan objectives. Implementation plans are synonymous with "activity" plans. Examples of implementation plans include interdisciplinary management plans, travel and transportation management plan, habitat management plans, and allotment management plans.

Implementation Plan Decisions: Decisions that take action to implement land use plan decisions; generally appealable to IBLA under 43 CFR 4.410.

Land Use Plan (LUP): A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land use plan-level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed.

Land Use Plan Allocations: The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

Land Use Plan Decisions: Establish desired outcomes and actions needed to achieve them. Decisions are reached using the planning process in 43 CFR 1600. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They are not appealable to the IBLA.

Limited OHV Designations: The Limited designation is used where OHV use is managed to meet specific resource management objectives. Management of OHVs may include limiting the number or type of vehicles, time or season of use; allowing permitted or licensed use only; limit OHV use to designated roads and trails; or other limitations necessary to meet resource management objectives, including certain competitive or intensive use areas that have special limitations. See 43 CFR 8340.05.

Mechanized Travel: Moving by means of a mechanical device, such as a bicycle and not powered by a motor.

Motorized Travel: Moving by means of vehicles that are propelled by motors, such as cars, trucks, OHVs, motorcycles, boats, etc.

Non-Motorized Travel: Moving by foot, stock or pack animal, boat, or by a mechanized vehicle, such as a bicycle.

Off-Highway Vehicle (OHV): OHV is synonymous with Off-Road Vehicle (ORV). ORV is defined in 43 CFR 8340.0-5 (a): Off-road vehicle means any motorized vehicle capable of, or designed 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; and 5) Any combat or combat support vehicle when used in times of national defense emergencies.

OHV Area Designations: Refers to the land use plan decisions that permit, establish conditions, or prohibit OHV activities on specific areas of public lands. All public lands are required to have OHV designations (43 CFR 8342.1). The CFR requires all the BLM-managed public lands to be designated as Open, Limited or Closed to off-road vehicles, and provides guidelines for designation. The definitions of Open, Limited and Closed are provided in 43 CFR 8340.0-5 (f), (g) and (h), respectively.

Off-Road Vehicle (ORV): The legal term used in the CFR 8340 regulations. See the Off-Highway Vehicle definition.

Open OHV Designations: Open designations are used for intensive OHV use area where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel. See 43 CFR 8340.05

Planning Criteria: Standards, rules, and other factors developed by managers and interdisciplinary teams to use when forming judgments about decision-making, analysis, and data collection during the planning process. Planning criteria streamline and simplify resource management planning actions.

Preliminary Network: If a final road and trails network is not identified in the RMP process, the plan should include a preliminary network that will be identified for use until a final network is selected through a subsequent implementation plan.

Primitive Road: A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards. Unless specifically prohibited, primitive roads can also be used for hiking, biking, horses, etc.

Recreation Management Information System (RMIS): The BLM's official database for documenting recreational visitor use and special recreation permits.

Resource Management Plan (RMP): The BLM considers RMPs to be synonymous with land use plans (as defined above), so the terms may be used interchangeably. Land use plan decisions made in RMPs establish goals and objectives for resource management (such as desired future conditions), the measures needed to achieve these goals and objectives, and parameters for using public lands. Land use planning decisions are usually made on a broad scale and customarily guide subsequent site-specific implementation decisions.

Resource Management Planning Area: Most RMPs cover a large planning and management area. As a result, the planning area may be divided into smaller areas, each with differing values, issues, needs and opportunities that may warrant differing management prescriptions.

Road: A linear route 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.

Roads, Trails and Primitive Roads: Terms used to describe specific categories of linear transportation features that represent sub-sets of the BLM's transportation network.

Road, Primitive Road and Trail Selection: For each area designated as Limited, the BLM should identify a network of roads and trails that are available for motorized use and other access needs, including non-motorized and non-mechanized use, consistent with the goals, objectives and other considerations described in the plan.

Road, Primitive Road and Trail Identification: For the purposes of this guidance, road and trail identification refers to the on-the-ground process (including signs, maps and other means of informing the public about requirements) of implementing the road and trail network selected in the land use plan or implementation plan. Guidance on the identification requirements is in 43 CFR 8342.2 (c).

Routes: Multiple roads, trails and primitive roads; a group or set of roads, trails, and primitive roads. Generically, components of the transportation network are described as "routes."

Spatial Data Management System (SDMS): Provides access to BLM-Alaska land record documents, reports and GIS data. These include the Alaska Case Reporting Enterprise System, SDMS Land and Resources Map Interface (interactive map), conveyance documents, Master Title Plats, survey plats, and ANCSA 17(b) easement maps. Available on-line at <http://sdms.ak.blm.gov/sdms/>.

Special Recreation Management Area (SRMA): A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities). Both land use plan decisions and subsequent implementing actions for recreation in each SRMA are geared to strategically identified primary markets.

Subsistence: Subsistence is defined by federal law as "the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools or transportation; for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption; and for the customary trade, barter or sharing for personal or family consumption."

Trails: Linear routes managed for human-powered, stock, or off-road vehicle forms of transportation or for historic or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Transportation Linear Features: Linear features represent the broadest category of physical disturbance (planned and unplanned) on BLM-managed public lands. Transportation-related linear features include engineered roads and trails, as well as user-defined, non-engineered roads and trails created as a result of public use on BLM land. Linear features may include roads and trails identified for closure or removal, as well as those that make up the BLM's defined transportation network.

Transportation Linear Disturbances: Term used to identify human-made linear features that are not part of the BLM's transportation network. Linear disturbances may include engineered (planned), as

well as unplanned, single and two-track linear features that are not part of the BLM's transportation network.

Travel Management Areas (TMA): Polygons or delineated areas where travel management (either motorized or non-motorized) needs particular focus. These areas may be designated as Open, Limited and Closed to motorized use and will typically have an identified and/or designated network of roads, trails, ways and other routes that provide for public access and travel across the planning area. All designated travel routes within travel management areas should have a clearly identified need and purpose, as well as clearly defined activity types, modes of travel, and seasons or timeframes for allowable access or other limitations.

Travel Management Plan (TMP): The document that describes the process and decisions related to the selection and management of the Transportation Network. This document can be an appendix to the RMP or a stand-alone document subsequent to the RMP.

Transportation Network: The network of roads, primitive roads and trails (motorized and non-motorized) that are selected (recognized, designated or authorized) for use through the comprehensive travel and transportation planning process.