The Bureau of Land Management Alternative Transportation Systems Inventory Report

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BLM and Lassen Rural Bus offer a shuttle service for cyclists enjoying the Bizz Johnson Trail in Susanville, California. Photo courtesy of the BLM.

Prepared for:
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Executive Summary

The U.S. Department of the Interior (DOI) engaged the Volpe National Transportation Systems Center (Volpe Center) to complete an inventory of Alternative Transportation Systems (ATS) for the Bureau of Land Management (BLM). The purpose of the ATS inventory is to identify ATS operating within or serving BLM lands, financial and operational attributes of these ATS, elements of success of existing ATS, and sites with strong potential for future ATS on BLM lands.

ATS include not only vans and shuttle services but also connections to regional transit systems, regular sightseeing tours, and nonmotorized connections for transportation purposes. ATS bring benefits to public lands, including conservation of natural and cultural resources, reduction of congestion and pollution, improvement of visitor mobility and accessibility, and enhanced visitor experience. These benefits align with the BLM's goals for visitor experience and resource preservation.

The inventory research uncovered 48 formal and informal ATS currently in operation or planned for future operation that access BLM lands. These include at least 11 connections to regional transit systems, 22 sites with shuttle and bus services provided by outside operators, and 15 nonmotorized infrastructure connections. Some of the ATS described in the inventory have direct, formal connections to BLM recreation sites whereas others are ATS operating in close proximity to BLM sites and include informal nonmotorized infrastructure that is utilized to access BLM sites.

Based on the ATS identified through interviews and more detailed examination of several "Best Practice" ATS on BLM lands and other Federal Land Management Agencies (FLMA) sites, several characteristics emerged as contributors to the success of ATS serving BLM sites:

- **Partnerships**: Partnerships with local governments, federal agencies, transit agencies, nonprofit organizations, and private companies can help in planning for ATS as well as funding and promoting ATS.
- **Visitor needs**: Consideration and adaptation to visitor needs lead to more site-appropriate ATS.
- **Nonmotorized modes**: Nonmotorized infrastructure is the ATS mode that is most compatible with low-visitation sites.
- **Existing resources**: BLM staff should pursue existing resources, such as transit service and nonmotorized infrastructure, before investing in new ATS.

Additionally, the BLM faces unique challenges in instituting ATS, though the agency can better plan for appropriate ATS by understanding these challenges:

- **Nature of BLM sites**: The dispersed nature and rural location of BLM sites is incompatible with some modes of ATS, such as regular transit service or sightseeing shuttles.
- **Nature of BLM visitors**: Visitors tend to be car-owning, local residents unaccustomed to some modes of ATS.
- **Resources**: Limited staff and financial resources and rotating management challenge ATS planning and implementation.

- **Limited transit**: Transit service is limited near rural BLM lands or is incompatible with BLM recreational use.

The Inventory Report identified specific sites with operating ATS as well as those with short-term and long-term potential to develop or enhance ATS. Basic details are included in the report with additional information in the accompanying ATS Inventory (Appendix A).

Recommendations

The Inventory Report identifies recommendations and opportunity areas for the BLM to increase ATS use among its sites:

- **Facilitate better relationships with partner agencies**
  - Create training materials to identify potential partner agencies and best practices
  - Leverage federal interagency contacts to promote partnerships at neighboring sites
  - Host regional workshops with partners to discuss ATS issues
  - Formally participate in the regional transportation planning process
  - Meet with public and private transportation providers to identify opportunities for increased service
- **Pursue formal and informal marketing and outreach for existing ATS**
  - Include ATS site access information on BLM websites and work with transit agencies to include BLM sites on "Trip Planner" features of transit websites
  - Promote ATS site access through local visitor centers, Chambers of Commerce, local outdoor businesses, and state tourism agencies
  - Formally educate state and field office staff about marketing opportunities and encourage them to pursue outreach efforts
- **Pursue short-term, low-cost strategies at the site level to increase ATS.**
  - Add signage directing users to BLM sites from existing nonmotorized or transit networks
  - Add small-scale capital improvements such as striped bike lanes on roads leading to sites or bicycle racks at trailheads
- **Adopt long-term policy and planning strategies at the agency level to increase ATS**
  - Train staff at all levels about the benefits of ATS and strategies for planning, funding, and implementation
  - Integrate ATS into formal agency planning efforts, such as including ATS in asset management and transportation databases
  - Establish a system, such as criteria, to target agency-wide ATS planning and technical assistance

While the transportation needs for BLM visitors differ from those of visitors to other federal lands, the BLM can still benefit greatly from ATS that is appropriate to the agency's unique situation and visitation.

Contents

Background

The U.S. Department of the Interior (DOI) engaged the Volpe National Transportation Systems Center (Volpe Center) to provide program and project support to the Bureau of Land Management (BLM) for alternative transportation planning and program development. A key objective of the alternative transportation technical assistance is to enable consistent, comprehensive planning and assessment of transportation systems and a more systematic identification and prioritization of transportation needs.

The Alternative Transportations Systems (ATS) Inventory Report is a foundational step in providing the necessary technical assistance to BLM for its alternative transportation planning. The inventory was designed to achieve the following objectives:

- Identify ATS that are currently operating within or serving BLM lands
- Identify operational and financial attributes of existing ATS
- Identify the elements that contribute to the success of existing ATS
- Identify areas of strong potential for future ATS on BLM lands
- Identify sites with greatest immediate potential to submit Paul S. Sarbanes Transit in the Parks (TRIP) Program grant applications

The Federal Transit Administration (FTA) sponsors the Paul S. Sarbanes TRIP Program. The TRIP Program provides approximately $27 million annually to fund planning and implementation projects for ATS in federally-owned parks and public lands. ATS include not only vans and shuttle services but also connections to regional transit systems, regular sightseeing tours, and nonmotorized connections for transportation purposes. While BLM is eligible to apply for these grant funds, the agency has traditionally submitted very few applications over the program's four-year history, which may be due to field office staff members who were unaware of the grant program or who did not believe that their sites were compatible with ATS.

For the purposes of this report, "traditional" ATS are defined as motorized transportation systems that are formally operated by a Federal Land Management Agency (FLMA), such as the BLM, or directly contracted out to another transportation provider by the FLMA. These include shuttles that operate within public lands or directly connect public lands with other destinations, sightseeing tours exclusive to the public land site, and formalized connections with public transit. "Nontraditional" ATS include both nonmotorized modes, such as bicycle and pedestrian infrastructure, as well as motorized systems that informally serve public lands but are not under the direct supervision of the FLMA. Nonmotorized infrastructure does not include recreational hiking trails; this infrastructure must have a transportation purpose.

This ATS Inventory Report provides an initial inventory of ATS serving BLM lands. The Report highlights existing and potential ATS connections to BLM lands and identifies the characteristics of effective ATS on BLM lands, the challenges to instituting ATS, and opportunities for increasing ATS within the agency. An accompanying ATS Inventory (see Appendix A) details all ATS identified as serving BLM lands.

Benefits of ATS

ATS can bring a variety of benefits to public lands. As described by the TRIP program, the benefits of ATS on public lands include:

- Conserve natural, historical, and cultural resources;
- Reduce congestion and pollution;
- Improve visitor mobility and accessibility;
- Enhance visitor experience; and
- Ensure access to all, including persons with disabilities.

The benefits of ATS correspond to agency goals established through several of its other programs. Examples of how ATS helps to accomplish BLM goals include:

- Instituting ATS to enhance visitor access and experience accomplishes the three stated Priorities for Recreation and Visitor Services (Pool et al. 2003):
    - Goal 1: ATS directly improves access to recreational opportunities on BLM lands by providing opportunities for visitors without private vehicles and by giving options to visitors who prefer alternative modes of transportation. Strategies to accomplish the objectives of this goal, such as comprehensive travel management planning and expanded partnerships for travel management, can and should be streamlined to encourage ATS.
    - Goal 2: ATS can ensure a quality visitor experience by improving the quality of visitor access through reduced congestion. ATS can also enhance visitor enjoyment of natural resources through reducing impacts to those resources.
    - Goal 3: The same strategies that help provide for fair value in recreation are also associated with planning for and instituting ATS. These include partnerships with agencies and the public, collaborative public outreach and awareness, and sustainable travel development with gateway communities.
- Through reducing pollution, congestion, and resource impact, ATS helps to conserve and protect ecological and scientific resources within the unique landscapes of the National Landscape Conservation System (NLCS).
- By encouraging mode shift, ATS can decrease the need for additional parking areas and roadways, helping to preserve the wildlife, watersheds, and soils that BLM is charged to protect.

Methodology

The information contained within the Report is largely based on the knowledge and direction of state, field office, and site-level BLM staff, as captured through a series of phone interviews. The interview-based research methods were selected to most effectively and efficiently identify all ATS serving BLM lands.

Volpe researchers approached inventory fact-finding through a top-down iterative approach as recommended by the BLM Federal Surface Transportation Team (FSTP). The BLM is a large decentralized agency and no previous catalogue of ATS had previously been completed for the BLM. The Volpe Center collected ATS information through a targeted series of phone interviews closely

coordinated with the FSTP that progressively drilled down from the state-level to the site-level. The Volpe Center interviewed staff in every BLM state office and then followed up with field offices and sites where information was incomplete or where the potential for future or current unidentified ATS connections was high.

Volpe Center staff first introduced the ATS Inventory Report and the Paul S. Sarbanes TRIP Program to the Recreation and Visitor Services Advisory Team (RVSAT), the Engineering Advisory Team, and the Trails and Travel Management Team through presentations at a monthly conference call. These teams are composed of BLM staff from across the country in functional areas where transportation areas are a concern. Next, Volpe staff conducted 30-minute interviews with the 11 State Office Recreation Leads. This first round of interviews targeted existing ATS, including privately operated shuttle service, connections to regional transit, and nonmotorized infrastructure. The first-round interviews also asked about potential ATS, including high visitation sites and sites near population centers. Furthermore, these interviews served as an opportunity to educate staff about the TRIP program.

Based on the findings of the first round of interviews, Volpe Center staff and the BLM Transportation Team prepared for two additional rounds of interviews to fill in missing details about existing and potential ATS. The second round of interviews focused on several sites that had been identified as having the most immediate potential to prepare a TRIP application for new ATS. These included two sites that had been the subject of Transportation Assistance Groups (TAGs)[1], and had been identified by their State Office Recreation Lead as having very strong potential for ATS. The BLM FSTP selected two additional sites, based on the first-round interview findings and internal knowledge, that had existing ATS connections and strong and immediate potential to enhance those connections. Second-round interviews served a dual purpose: gaining additional details about the status of ATS and facilitating the implementation of ATS (generally through TRIP applications). Questions focused on data to support ATS, the status of any actions to implement ATS, staff capacity and support for ATS, and the potential for technical assistance and next steps.

The third round of interviews included 12 site and field office staff in locations identified as having existing ATS or high potential for new ATS for which State Office Recreation Leads did not have complete information. The third round of interviews was selected on the basis of the following criteria:

I. Current or former ATS on site
    a. Known existing transit connection, shuttle service, or major nonmotorized infrastructure
    b. Former ATS serving site
    c. RVSAT team members relayed partial or unconfirmed information about ATS
II. Site location
    a. Site lies within a known transit service area
    b. Site lies within a non-urban or resort area with transit potential (e.g. seasonal shuttles, intra-city bus service, or other fixed-route service)
III. Visitation

[1] TAGs are teams composed of technical experts and interagency stakeholders that visit public lands to analyze existing conditions, identify transportation needs and concerns, and make recommendations for future transportation planning and solutions.

a. A significant percentage of site visitors use nonmotorized transportation to access site
b. Very high visitation site that RVSAT believed could benefit from ATS

IV. Other
a. Site is in close proximity to or contains a major regional trail
b. Site has been the focus of a TAG study or other study detailing transportation or congestion problems

These interviews focused on filling in missing details about the identified ATS, uncovering other transportation challenges, and garnering interest in the TRIP program. The specific examples of ATS and the general findings about ATS within the agency are based on findings from all three rounds of interviews.

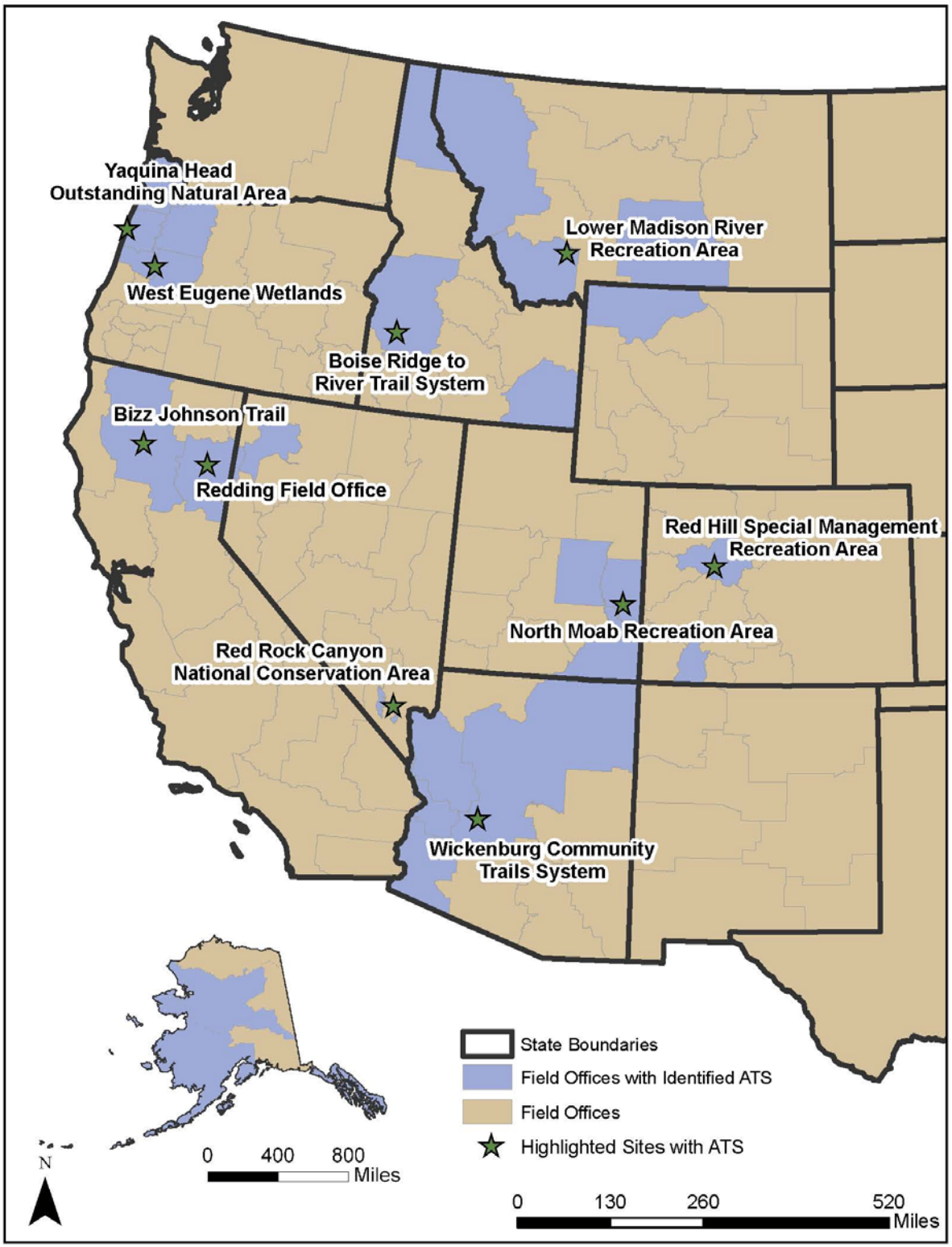
Existing ATS

The existing ATS serving the BLM generally fall into the following categories, as defined below. Examples from each category are provided later in this section.

- Connections to regional transit: Local or regional transit service with bus routes directly serving BLM sites or routes that pass in close proximity to BLM sites.
- Private shuttles and tour buses: Private companies operating shuttle services for recreational visitors (including rafters, inner-tubers, fishers, hikers, and cyclists) on BLM lands and tour companies that offer bus or van tours to or through BLM lands.
- Nonmotorized infrastructure: Sidewalks, bicycle lanes, and designated off-road bicycle and pedestrian paths that allow nonmotorized transport to BLM sites. Also includes major regional paths that primarily serve as recreational amenities but also allow access between regional destinations and BLM lands.

Individual ATS are detailed in the ATS Inventory (Appendix A), which includes information on ATS location, ownership, maintenance, operations, financial attributes, site visitation, use of system, and notes from the field. The ATS Inventory captures a range of ATS, from frequent bus service at high visitation sites to informal use of nonmotorized connections at rural, low-visitation trailheads. The Inventory also includes several sites that have strong potential for ATS or that would enhance existing ATS connections. This section highlights some of the strongest examples of ATS currently operating on BLM lands. Map 1, on the following page, shows locations of ten of the highlighted BLM sites with ATS contained in this section as well as field offices throughout the western states that contain ATS identified in the inventory research.

Map 1: Field Offices and Highlighted Sites with ATS



ATS Funded by FTA Grants

Fisher Towers along Highway 128 near Moab, Utah. Photo courtesy of the BLM.

The TRIP Program (formerly known as Alternative Transportation in Parks and Public Lands (ATPPL)) has distributed four rounds of grant funding, starting in Fiscal Year 2006. During that period, BLM sites have submitted four applications and received funding for three projects (two at the same site):

1. North Moab Recreation Areas Alternative Transportation Project (UT): The BLM, in partnership with the National Park Service (NPS) and Grand County (the funding recipient), received a total of $3.7 million for two applications submitted in FY 2007 and FY 2008 for an implementation project for the North Moab Recreation Area, Arches National Park, and adjacent public lands. The grant funds the construction of 15 miles of bicycle paths, an intermodal transit hub for private shuttle operators, and a bicycle/pedestrian bridge across the Colorado River.
2. Wickenburg Community Trails System Master Plan (AZ): The Hassayampa Field Office received $96,950 in FY 2008 to complete a Community Master Trail Plan for the Town of Wickenburg. The plan is still in progress and will focus on establishing trails and nonmotorized connectivity on BLM lands and within the Wickenburg Community. The Hassayampa Field Office works very closely with community groups on these planning efforts.

High Visitation or High Use Sites with Short-Term ATS Potential

The interviews revealed several sites that have very strong potential to institute or enhance ATS in the short-term, two of which anticipate submitting TRIP grant applications for FY 2010. The others may be seeking targeted technical assistance or funding in the next two to five years. (Long-term opportunity sites are identified later in the report.) These sites also have higher visitation levels than most BLM sites, which bring additional congestion and greater demand for ATS solutions.

1. Red Rock Canyon National Conservation Area (NV): Several studies have been completed that document transportation-related congestion and potential for ATS on this high-visitation site (studies include a 3039 study completed in 2000, a Transit Feasibility Study completed in 2001, and a Transportation Assistance Group, or TAG, report completed in 2007). Studies indicate that seasonal shuttles targeting the Scenic Loop Drive and popular climbing routes may be feasible. The site manager plans to submit a TRIP application for a Comprehensive Transportation Planning Study in FY 2010.
2. Red Hill Special Recreation Management Area (CO): Several government, transportation, and nonprofit stakeholders have partnered to enhance pedestrian, bicycle, and transit access to this popular trail system located in Carbondale in the Roaring Fork Valley. The combined stakeholder group is examining the potential for a pedestrian underpass to access the site as well as other improvements that would encourage mode-shift for site visitors. The group plans to submit a TRIP planning application for FY 2010.

3. Yaquina Head Outstanding Natural Area (OR): Like Red Rock, several studies at Yaquina Head (including a 3039 study completed in 2000 and a TAG report completed in 2008) reveal high seasonal visitation and feasibility for several types of visitor shuttles. A study to more comprehensively evaluate transit against management or nonmotorized solutions would be a valuable next step for this popular site. Yaquina Head, located near Newport, Oregon, is currently served by a local bus route but few visitors use this service to access the site.
4. Lower Madison River (MT): The Lower Madison River site is located 30 miles from Bozeman, MT, and is extremely popular for fishing and inner tubing. High seasonal visitation causes bottlenecks in the narrow road between the site and Bozeman and parking congestion at the site. Staff out of the Dillon Field Office has been working with a potential shuttle operator to examine feasibility of a shuttle service between the site and Bozeman.
5. Redding Field Office (CA): The BLM owns many right-of-ways along waterways that were former mining lands in the Redding urban area. Working closely with local governments, nonprofit agencies and foundations, the BLM has planned and implemented over 80 miles of nonmotorized trails connecting commercial, residential, and recreational destinations in the Redding area. Residents use the BLM-owned trails for nonmotorized transport around the city. More information about the Redding trails appears in the "Best Practices" section.

Regional Transit Connections

While many BLM sites are not located near areas with existing transit service, several sites already take advantage of transit services operating nearby. These services range from frequent, urban bus service to infrequent, inter-city bus travel or routes targeting commuters. The connections listed here include known, existing connections. Additional potential connections or regional transit serving near BLM sites are included in the ATS Inventory:

1. The Lassen Rural Bus service, out of Susanville, CA, can serve as a shuttle for users of the Bizz Johnson Trail as it offers several stops near trail access points.
2. Eagle County Transit serves neighborhoods bordering the Hardscrabble recreation area, between Eagle and Gypsum, Colorado.
3. Valley Ride, the transit provider for Boise, Idaho, has several bus routes that serve the Boise River to Ridge trail system, co-owned and managed by the BLM.
4. The "Mountain Express" bus route run by Sandy Transit offers direct access to the Wildwood Recreation Site in Oregon. Although this bus caters to commuters and BLM visitors do not frequently use it, BLM staff cites instances of bus riders accessing adjoining USFS lands.
5. Lane Transit Service, serving Eugene, Oregon, has several stops along a major arterial running through the West Eugene Wetlands.
6. The Newport Loop of Lincoln County Transit serves the entrance to Yaquina Head, in Oregon, although site staff notes that the service is probably used mostly by local volunteers.

Private Shuttles and Tour Buses

In many cases, private companies that operate on BLM lands must receive permits from the field office, though sometimes these are jointly issued with other state and federal land management agencies. In some BLM field offices, especially those with popular Wild and Scenic Rivers, there are numerous private outfitters offering rafting and fishing trips that include transportation from gateway towns or shuttle

services. In many cases, the exact number of shuttle services was not identified, in part because staff did not generally consider these to be alternative transportation and therefore may have underreported their presence during interviews.

Inventory research found no cases of government-owned shuttles operating on BLM lands, although there are instances in which the BLM contracts with a local transit company or private operator to provide shuttles to BLM visitors. For example, a private company offers shuttle service for cyclists and hikers on the Bizz Johnson Trail out of Susanville, CA, but staff out of the Eagle Lake Field Office found this service to be cost-prohibitive for most users. To serve visitors with an economic shuttling option, the BLM partners with the Lassen Rural Bus to offer weekend shuttle service once a month.

View from along the Scenic Loop Drive in Red Rock Canyon National Conservation Area. Photo courtesy of the BLM.

Also included in this category are tour buses, serving tourists, and school buses, serving students and youth groups. Tour companies are known to offer bus tours along the Dalton Highway in Alaska and along the Scenic Loop Road in Red Rock Canyon. Many BLM sites include environmental education centers that attract thousands of schoolchildren and scout groups annually. These sites include the Wildwood Recreation Site (Sandy, OR), the West Eugene Wetlands (Eugene, OR), and the Campbell Creek Science Center (Anchorage, AK).

Due to the large number of formal and informal shuttle services identified, the existing shuttles are recorded in the ATS Inventory only and not duplicated here.

Nonmotorized Infrastructure

The nonmotorized infrastructure and regional trails serving BLM sites can range from formal networks of trails and paths to informal infrastructure (low-traffic rural roads) that cyclists and pedestrians frequently use for site access. They do not include purely recreational trails, such as off-road hiking trails, that do not serve a transportation purpose. Infrastructure may be owned and maintained by local governments, non-profit organizations, federal agencies (including the BLM), or a combination of agencies. The nonmotorized ATS highlighted in this report represent some of the strongest examples in the agency, although many more examples of nonmotorized infrastructure on smaller scales are included in the ATS Inventory.

1. The Redding Field Office has planned and constructed over 60 miles of trails linking major and minor destinations within the Redding urban area.
2. The Bizz Johnson Trail is a 25.4 mile gravel and dirt recreational trail in the Eagle Lake Field Office (CA) that connects directly to the towns of Susanville and Westwood.

3. The BLM maintains 13 miles of the 15.6 mile Row River Trail outside of Cottage Grove, Oregon. The paved recreation trails connect the urban areas of Cottage Grove with many BLM recreational resources.
4. A bicycle trail that runs through West Eugene Wetlands (Eugene, OR) connects with a bike trail serving downtown Eugene (4 miles away).
5. The Black Canyon Trail, located north of Phoenix, Arizona, is a planned major regional trail with connections between residential areas and various public lands, including many BLM lands.
6. The Hardscrabble recreation area has direct trail connections to bicycle infrastructure in the towns of Gypsum and Eagle, Colorado.
7. The Boise River to Ridge trail system is well-connected with extensive bicycle and pedestrian infrastructure that the City of Boise maintains.

Best Practices

Several BLM sites have ATS with innovative elements or ATS that have been particularly successful at inviting access via alternative modes. In addition to examples found within the agency, other FLMA recipients of TRIP grant funds can provide lessons on ATS planning and implementation. Elements of these "Best Practices" ATS can serve as models for other BLM sites that are trying to adapt appropriate ATS to their own circumstances.

Redding Field Office – Redding, CA

Located in northwest California, the Redding field office covers five counties and includes the City of Redding, with a population of approximately 100,000. Many of the BLM lands in the Redding area are leftover mining lands that follow streams and rivers and are usually only a few hundred meters wide. BLM staff has strategically sold and purchased land parcels in order to construct unified blocks of land that follow a linear pattern. The resulting land network currently hosts more than 80 miles of paved and natural surface trails.

Over the past four years, field office staff has overseen the construction of 60 miles of this regional trail network. The trails connect commercial areas, recreational amenities, and residential neighborhoods, offering an alternative transportation path for pedestrians and mountain bicyclists. BLM also owns major regional recreational trails, such as the paved Sacramento River Rail Trail. BLM has worked closely with the City of Redding, Shasta County, the McConnell Foundation, the Redding Foundation, and private citizens to plan, construct, and fund the trail system. BLM staff in the Redding Field Office has become highly engaged in local and regional transportation planning efforts, functioning as an integral stakeholder as the City and County complete their land use and transportation plans. These partnerships have allowed the BLM to leverage more financial resources for new trails.

West Eugene Wetlands – Eugene, OR

West Eugene Wetlands (WEW) consists of over 3,000 acres inside the Eugene city limits, jointly owned by the BLM, the City of Eugene, and the Nature Conservancy (each owns roughly one-third of the site). Thanks to the efforts of BLM site staff and partners, WEW has both transit and nonmotorized connections that offer visitors a choice of access modes. Lane Transit District (LTD) serves the greater Eugene area and has several bus stops along Oregon Highway 126, a major arterial running through WEW. Bus stops

are located at the site of a proposed environmental education center and at several trailheads, with additional bus stops no more than one-half mile from other trailheads. Pat Johnston, West Eugene Wetlands Project Manager, has lobbied LTD for more formalized connections between transit and public lands, potentially in connection with a new bus rapid transit service that will run near the site.

Bicycle and pedestrian trail in WEW. Photo courtesy of the BLM.

WEW also features a 2.5 mile paved recreational path running through the site, which allows visitors to access several popular trailheads. This path connects seamlessly to the Fern Ridge Bike Path, which extends an additional four miles to downtown Eugene and allows visitors from Eugene to access WEW by bicycle. The BLM has provided bike racks and other amenities at trailheads to further ease this connection. The coordination between federal, municipal, and nonprofit entities, as led by Johnston, has contributed greatly to the site's success in ATS planning and implementation.

Bizz Johnson Trail – Eagle Lake, CA

The Bizz Johnson Trail is a 25.4 mile gravel and dirt recreational trail in the Eagle Lake Field Office that connects directly to the towns of Susanville and Westwood, California. The one-way nature of the trail lends itself to a shuttle service, but BLM staff notes that the only private shuttle operator charges rates that discourage shuttle use. Lassen Rural Bus, a transit service operating in Lassen County, provides weekday bus service with three daily trips, stopping at or near several trail access points. The bus is equipped with racks to carry up to two bicycles, and it is used sporadically by some trail users.

Stan Bales, Outdoor Recreation Planner for Eagle Lake, noted visitor demand for a low-cost weekend shuttle and initiated a partnership between the BLM and Lassen Rural Bus to provide such a service. One weekend day per month, BLM provides a utility trailer with the capacity to carry up to 20 bicycles, and visitors ride the Lassen bus for a small fee. The service attracts between 100 and 200 riders per year, though ridership has declined in recent months due to the economic downturn. Trail users drive from all over northern California, and they have expressed appreciation for a shuttle service that allows them to leave one car at home. BLM staff carefully tracks trail use and shuttle service use, which helps staff to cater services to visitor needs. Bales notes challenges in promoting the shuttle and transit service, as he relies on very limited marketing resources and a few volunteers for assistance.

Passengers on the BLM/Lassen Rural Bus shuttle service. Photo courtesy of the BLM.

Boise River to Ridge Trails – Boise, Idaho

The Boise River to Ridge Trail System is a network of trails in the foothills abutting Boise; the trails are co-owned and managed by the BLM, the U.S. Forest Service, and the Idaho Department of Lands. Trailheads are mainly located within Boise city limits, close to downtown and in residential neighborhoods. Valley Ride, the Boise-area public transit service, has four bus routes with stops at or very close to trailheads. Buses are equipped with bike racks, and many bus passengers take advantage of this service to bring their bikes downtown. Transit service is mostly weekdays only, with one route offering Saturday service to trailheads. Anecdotally, BLM staff finds that trail users do not tend to use transit services both due to limited transit service hours and general unfamiliarity with the bus system, but there is strong potential to market these services.

Thanks to an extensive system of nonmotorized infrastructure maintained by the City of Boise, many or perhaps even most trail users walk to the trailhead or ride their bikes from their homes. Many of the busier roads have a dedicated bike lane, and a regional greenbelt offers a nonmotorized arterial through the City with connections to several River to Ridge trailheads. Residential neighborhoods near trailheads feature small, open space areas connected by sidewalks, providing a safe and pleasant route for pedestrians to access trails. Boise residents are supportive of their trail system and nonmotorized infrastructure; they passed a municipal bond to maintain open space and protect trail access.

Cyclists enjoying the River to Ridge trail system in Boise. Photo courtesy of the BLM.

BLM has been less involved than its multi-agency partners in transportation planning for multimodal trail access. Rather, the BLM has focused on acquiring land in the foothills to achieve greater trail connectivity, and they do partner with USFS and others on these efforts.

Neal Smith National Wildlife Refuge – U.S. Fish and Wildlife Service, Prairie City, IA

The Neal Smith National Wildlife Refuge offers wildlife observation and interpretation opportunities to its approximately 180,000 annual visitors. The refuge is located 4.5 miles from Prairie City and approximately 20 miles from the City of Des Moines. Working with the Jasper County Conservation Board and the Town of Prairie City, the FWS successfully obtained $560,000 in TRIP funds to construct a paved bicycle/pedestrian trail connecting the refuge's visitor center with the Town. The new trail will be a natural connection with the Town's newly-built bike/pedestrian trail, funded by a State of Iowa grant. It will also connect to a proposed County Conservation Board project to build a 10-mile Rails-to-Trail unit between Prairie City and the Town of Monroe, Iowa. The FWS project is part of a regional vision for the Central Iowa Trail Network, connecting to the Des Moines metropolitan area.

As part of their TRIP application, the FWS studied visitation levels, access points and conditions, and environmental impacts of existing site conditions. Based on the analysis, the agency estimated that the new trail connection would induce 10 to 12 percent of users to use nonmotorized modes instead of

vehicles. The strength of the application lies in the connections between the proposed bicycle/ pedestrian trail and other existing and planned trails throughout the region. The ATS reflects advanced planning with partner agencies and the use of existing resources (such as the newly-built Prairie City trail) to obtain funding for the FWS trail.

Marsh-Billings National Historic Park – National Park Service, Woodstock, VT

Located in the rural town of Woodstock, VT, with a population of 3,200, the Marsh-Billings National Historic Park attracts over 100 visitors daily during peak periods. The Town of Woodstock has struggled with parking and traffic congestion, with residents and business owners noting that limited parking results in traffic congestion and reduces profits for local businesses. The Town partnered with the nonprofit Woodstock Foundation, INC, and the Conservation Study Institute to apply for $78,500 in ATPPL funds in 2006 to complete a fiscal analysis for public private transit to serve the Marsh-Billing-Rockefeller National Historic Park and the Town of Woodstock.

Using ATPPL funds, the Town hired a consultant to perform a Market Analysis Summary. The Summary found that a shuttle service could increase access availability to several satellite parking lots located outside of downtown Woodstock. A shuttle service would also allow pedestrians visiting Woodstock to connect easily to the National Historic Park Farm and Museum and associated trails, which are approximately 1.5 miles from downtown Woodstock. The Summary also identified hours and seasons of peak demand for the shuttle, as well as co-benefits for Woodstock residents and employees. While the NPS unit may not have induced sufficient demand for a shuttle on its own, the NPS was able to draw out visitor and resource benefits by partnering with the Town and local nonprofit organizations.

Characteristics of Successful ATS

ATS currently operating within or connecting to BLM lands tend to be characteristically different from those of other FMLAs. The "Best Practices" cases highlighted in the previous section show that certain site characteristics or staff efforts can contribute to the success of alternative transportation. Based on interviews with field office staff and the "Best Practice" cases within the BLM and other FLMAs, several characteristics emerge that distinguish BLM ATS from ATS operating on other federal lands. These characteristics also offer insight into how to focus future efforts in building effective ATS that meet the unique situation of BLM lands and the needs of BLM visitors.

Partnerships

Most individual BLM sites have limited staff and resources, commensurate with their lower visitation. BLM staff has partnered with public, private, and nonprofit agencies to combine resources and create transportation infrastructure with mutual benefits for both parties. The following are categories of agencies, organizations, and businesses with which the BLM has successfully partnered:

- Local governments: Local governments manage transportation and recreation infrastructure in rural and urban areas surrounding BLM sites. They may also oversee, along with quasi-governmental (such as Metropolitan Planning Organizations (MPOs)) and nongovernmental agencies, transportation and recreation planning efforts and economic development initiatives. The BLM can connect with local government planners, engineers, and other officials to include

BLM resources within local and regional plans, projects, and programs. The BLM may also leverage relationships with local governments to market visitor opportunities and attract schoolchildren or community groups.

- Federal agencies: BLM land often is adjacent to or accessed via other federal lands. Opportunities for partnerships include coordination of private shuttle services, sharing of transportation resources and infrastructure, and streamlined access between sites, such as connections between nonmotorized trails. Additionally, other federal agencies can be valuable resources for local best practices and for consultation with local partners.
- Transit agencies: The BLM has often not formed direct relationships with transit agencies, resulting in missed connections. This is a significant opportunity area, as many BLM sites are very close to existing transit routes and partnerships can serve to enhance or market these connections. BLM staff can also engage in the regional transit planning process to direct new routes or stops at locations that offer better access to BLM sites.
- Nonprofit organizations: BLM staff frequently partners with local citizen groups or nonprofit organizations to manage site resources or visitation, including trail maintenance and interpretive centers. These groups may also manage or promote nonmotorized trail networks in gateway towns adjacent to BLM sites and can have a significant role in encouraging greater use of ATS to access sites. Local nonprofit organizations may also serve as a bridge between BLM staff, local citizens, and local government officials.
- Private shuttles, outfitters, and tour companies: The BLM permits private companies to operate recreation-based services on agency lands for activities such as fishing, rafting, tubing, bicycling, and scenic viewing. Several of these services include transportation from gateway towns to the recreation site whereas others offer a shuttle between two access points of a river or trail. These activities can be mutually beneficial by allowing companies to run a profitable business while decreasing a portion of single-vehicle access to BLM sites. The BLM can increase visitation to sites by working with private tour companies and outfitters as well as giving visitors the opportunity to bring fewer vehicles for shuttling purposes.

Partnerships can offer benefits to the BLM and enhance alternative transportation planning in several ways:

- By consulting with local governments and MPOs, the BLM can take part in long-term regional strategies or master planning for new nonmotorized infrastructure and transit service.
- The BLM can use partnerships to leverage new funding sources for planning, acquisition of land (for trails, transportation infrastructure, or corridor connection), and other capital expenses.
- Working with local governments and nonprofits, BLM staff can enhance its onsite activities by providing interpretive services, environmental education centers, and other attractions for tour groups and school children.

ATS bring benefits to BLM lands in the form of improved visitor experience, better access, and reduced environmental impact. At the same time, these improvements can also offer co-benefits for communities. Adjacent land owners and towns can enjoy better connectivity, recreational amenities, and reduced vehicular congestion from the addition of ATS on or near BLM sites.

BLM Visitor Needs

BLM visitors have unique characteristics and transportation needs. By identifying the site-specific use patterns of visitors, the BLM can better cater ATS to serve these needs.

Many popular BLM recreation sites are mountain-biking and hiking trails located in small, western communities in which the local population has a strong outdoor recreation culture. Local residents make up the vast majority of visitors at these sites, as many trailheads are located within a few miles of residential areas. Unlike tourists that travel great distances to access recreation sites, these visitors are already more inclined to bicycle or walk to the site. The BLM can enhance the ease and safety of these connections by building sidewalks on busy roads, using signage to direct cyclists or pedestrians to trailheads, and providing comfort stations or bicycle racks at trailheads.

A few BLM sites attract heavier non-local visitation, such as Yaquina Head Outstanding Natural Area in Oregon and Red Rock Canyon National Conservation Area in Nevada. These sites can plan to accommodate tourism-based visitation through transportation management strategies and potentially more formal modes of ATS, such as shuttle service. BLM staff and partners that are able to track visitation and understand how visitors use the site are better able to serve visitor needs through appropriate applications of ATS.

Nonmotorized ATS

Given the dispersed and low-visitation nature of most BLM sites, nonmotorized modes of alternative transportation tend to be the most effective and relevant way to integrate ATS into BLM lands. While nonmotorized modes are well-suited for many BLM sites, BLM staff should use caution to differentiate between trails used for transportation and those used for recreation. In many cases, BLM-maintained trails are primarily recreational in use, though many visitors access these trails by using connecting nonmotorized infrastructure for transportation purposes. In other cases, recreational trails offer access to backcountry hunting or hiking areas that cannot be reached by other means. The distinction between recreational and transportation trail infrastructure must be clarified in the use of transportation funds for nonmotorized ATS.

Several factors strengthen the effectiveness of nonmotorized transportation in and around BLM sites:

- The areas around BLM lands (largely rural, western populations) tend to have a strong bicycle culture, which has materialized into formal and informal networks of bicycle and pedestrian infrastructure in gateway towns. Many of these networks already offer direct or indirect access to BLM sites.
- BLM lands often house major regional nonmotorized trails, or sections of trails, that provide bicycle, pedestrian, and equestrian access to several destinations throughout the region. These trails

The 15.6 mile Row River Trail connects Cottage Grove, Oregon, to BLM lands. Photo courtesy of the BLM.

primarily serve a recreational purpose, but they also connect regional destinations and may offer access to other BLM resources (e.g. hiking trails or wilderness areas). Examples of these trails include the Bizz Johnson Trail in Susanville, CA; the Row River Trail in Cottage Grove, OR; and the Black Canyon Trail north of Phoenix, AZ.

- In areas where local authorities maintain nonmotorized infrastructure for intra-city transportation, BLM site and field office staff can connect their own trails to these existing urban bike paths and trail networks.

Existing Resources

In BLM sites with limited financial and staff resources and low or dispersed visitation, effective ATS capitalize on existing resources that may not require intensive transportation planning and management capacities from the agency. The most successful of the BLM's ATS, as captured in the previous sections, have looked to their current assets first before investing in new infrastructure or capital. These assets include:

- Transit service
- Nonmotorized networks, often managed by local governments, adjoining public lands, or non-profit groups
- Major BLM-owned trail infrastructure or corridors serve as nonmotorized regional transportation networks
- Tour buses that include BLM sites or pass through BLM lands as part of existing tours
- Local residents preferences to access trails from home by bicycle or by foot

Other BLM sites can follow this model by taking inventory of their own assets that may facilitate visitor access by alternative modes.

Challenges for ATS in BLM Lands

While some ATS operate effectively on BLM lands, many BLM lands are not well-suited for ATS based on underlying site features. Some of these challenges are surmountable through creative partnerships or through the use of non-traditional modes of ATS, but other impediments to ATS implementation will remain characteristic of many BLM lands into the foreseeable future. By cataloguing and understanding these challenges, the BLM can adapt transportation planning to utilize ATS solutions most appropriate to BLM sites.

Nature and Location of BLM Sites

The vast majority of BLM lands are inaccessible to the general public, but even the recreation sites designated for public use tend to be less accessible than public use recreation sites operated by other federal, state, and local land management agencies. First, BLM sites are often located far from urban areas and consequently, the population densities around the sites are very low. For this reason, the number of people who can easily and quickly access BLM sites is also low. While some BLM recreation sites are clustered near other parks or attractions, most sites are dispersed, without a logical network of transportation connections between them.

Due to their location outside of urban areas, sites are often structured around vehicular access because almost all visitors need to drive long distances to access the site. Sites often lack a central facility to serve as a drop-off point for shuttles or transit. Within the sites, trailheads and other visitor attractions tend to be dispersed, with many miles separating one trailhead from another. Some of these sites are served only by unimproved roads, which cannot easily accommodate some vehicles or bicycles. The visitation at these sites is generally too low to justify road improvement.

Finally, despite the dispersed and rural nature of the sites, many small-scale BLM recreation areas do enjoy a relatively large proportion of visitors who access the site via nonmotorized modes. However, agency staff has trouble tracking access to these sites due to low or unrecorded visitation.

Nature of BLM Visitor

Visitation patterns at BLM sites also may be incompatible with traditional ATS, such as shuttle services or transit connections. With a few notable exceptions, visitation at BLM sites is far below the visitation levels at other public lands that successfully support shuttle services or transit; even sites with the highest visitation only reach these higher levels of visitation during peak season.

The visitors that access rural BLM sites are mostly local residents in areas where car ownership is universal. Visitors are accustomed to using their cars for all transportation needs, and the use of a shuttle or transit service may be more uncomfortable for these visitors than for urban residents. Finally, and perhaps most significantly, visitors come to BLM sites to enjoy gear-intensive recreation, such as fishing, camping, and off-highway vehicle (OHV) use. These activities require equipment that cannot be transported easily by transit, shuttle, or nonmotorized modes.

Staff and Funding Constraints

In most cases, staffing and funding at BLM field offices and sites are not explicitly structured to include ATS. Staff is not trained in ATS planning nor are they hired to fulfill ATS planning or implementation functions. The agency has limited dedicated funding for alternative transportation and most field office staff is unaware of how to access such funding. While many forms of ATS do not require a large capital expense, they do require some funding sources to support planning, implementation, and management. Funding for ATS is often pieced together from various governmental, private, and nonprofit sources. This funding tends to be inconsistent at the field office level, leading to project or study delays. Inconsistent funding has interrupted planning and implementation efforts at West Eugene Wetlands, the Row River Corridor and the Winnemucca Field Office (NV).

View from the Bloody Shins trail in Winnemucca, Nevada. Photo courtesy of the BLM.

Many staff members do not think that ATS are applicable to their sites, without realizing that non-traditional ATS may be compatible with and offer benefits to their site. Site and field office staff has strong local knowledge that can be directed towards creative ATS opportunities or solutions, presenting an opportunity to enhance ATS by educating staff about its potential and benefits. Finally, rotating

management at the site- and field office-level causes challenges in implementing completed transportation plans. Several sites have completed transportation studies recommending specific ATS solutions. However, management changes have occurred and affected the implementation of ATS solutions. New management may be unaware of these studies or may have different priorities than previous staff.

Transit Limitations

A final and specific challenge to implementing ATS is related to connections with existing regional or rural transit service. Reasons for limited transit service to BLM sites include:

- Many western states have very limited transit service in general or do not have any transit serving BLM sites.
- Transit serving BLM sites located on the fringe of urban areas or along inter-city routes often cater to commuters rather than recreationalists. They may primarily offer service during rush hours or weekdays only; hours of service are inconsistent with visitation peaks.
- Transit stops are several miles away from BLM sites, but visitation at sites is not sufficient enough to justify a shuttle or another service to cover the remaining distance.
- Local taxis in small towns have shown resistance to the implementation of transit or shuttles, which may detract from their taxi business.

Recommendations and Opportunity Areas

In addition to replicating the successful elements of existing ATS and understanding the agency's limitations in implementing ATS, the BLM can focus on several opportunity areas to increase the presence of ATS among its recreation sites. Specific recommendations for the agency can be found below in Table 1, with recommendations and opportunities described in greater detail later in this section.

Table 1: Agency and Field Office/Site Recommendations

Recommendation	Agency-Level Actions	Field Office/Site-Level Actions
1. Facilitate better relationships with partners	• Create training materials that identify potential partner agencies and partnership best practices • Use federal interagency contacts to promote partnerships at neighboring sites • Provide incentives for formal partnerships at the field office level	• Host regional workshops with partners to discuss ATS issues • Formally participate in regional transportation planning • Meet with private transportation providers to identify opportunities for increased service
2. Market existing ATS connections	• Create standardized web templates or communication strategies to post ATS site access • Formally encourage and educate state and field office staff about marketing opportunities	• Include ATS site access on BLM Website and ask transit agencies to include links on transit websites • Promote ATS site access through local visitor centers/tourist information • Promote recreational amenities among state tourism bureaus, local community groups, and local businesses
3. Pursue short-term, low-cost strategies to increase ATS		• Add signage and other small-scale capital improvements to enhance nonmotorized access to sites
4. Adopt long-term policy and planning strategies to increase ATS	• Train staff (state, field office, and site) about the benefits of ATS and strategies for planning, funding, and implementation • Integrate ATS into formal agency planning efforts, such as including ATS in asset management and transportation databases • Establish a system (e.g. criteria) to target ATS planning and technical assistance	• Include ATS as part of Resource Management Plans (RMPs).

Facilitate Relationships

The importance of and opportunities for partnerships are described under "Characteristics of Successful ATS," but agency leadership can also take specific actions to promote and enhance partnerships at the field office level:

- Promote opportunities for site and field-level staff to connect with local and regional partners.
    - Create training materials that identify useful agencies (e.g. MPOs, local recreation departments, transit agencies, nonprofit agencies and foundations, etc.) as well as agency missions. Materials may also present best-practices of successful partnerships between the BLM and these types of agencies.
    - Host regional workshops in which potential partners are invited to discuss specific regional issues.
    - Use federal interagency contacts to identify and promote partnerships at neighboring sites.
- Improve formal relations with private companies (such as tour bus companies and shuttle services) for mutual gains.
    - Help field office staff to identify private companies offering transportation services and encourage meetings to discuss increased service to BLM lands.
    - Incorporate incentives for outfitters operating in BLM lands to offer more ATS-type services through the permitting process.
- Encourage or provide incentives for field office staff to formally participate in regional planning with the MPO or transit agency. This is a valuable way to connect sites with long-term expansions or changes in transit service and to connect with other transportation providers in the region.

BLM staff is already familiar with the concept of interagency partnerships, in large part because many BLM lands must be accessed via trails or roads that pass through other public or private lands. A future goal would be to emphasize transportation opportunities in existing and new partnerships.

Market Existing Connections

As documented in the ATS Inventory of this Report, many BLM sites already have functioning ATS and many more sites have very strong potential to implement ATS. However, visitors may be accustomed to driving to BLM sites instead of using shuttle services, transit, or nonmotorized modes, or they simply may be unaware of the alternate modes to access BLM sites. A combination of formal and informal marketing strategies can increase the use of existing ATS:

- Formal marketing and outreach
    - Provide information on BLM Websites to transit services, such as a link to transit websites, and trail networks that access BLM sites.
    - Partner with transit agencies to include BLM sites on transit websites or in promotional materials, including as "destinations" in the Trip Planner feature of transit websites.[2]

[2] Transit & Trails is an initiative started by the Bay Area Open Space Council to identify public transit connections to parks and trailheads. While the initiative is currently centered on the San Francisco Bay Area, the web program

    - Provide information about shuttle services on BLM website or at BLM visitor centers.
    - Promote site access via ATS at local Chambers of Commerce or tourism information centers.
    - Coordinate with state tourism bureaus to promote ATS access. This may also be a way to leverage additional ATS funds as many western states have a promotional budget to support their tourism-based economy.
- Informal marketing and outreach
    - Encourage field office and site staff to form relationships with local recreation centers, local governments, bicycle shops, and outdoor recreation shops.
    - Encourage state-level recreation and transportation staff to discuss marketing and promotion with field office and site staff.

Short-Term and Low-Cost Solutions

Enhanced marketing of existing connections, both through formal and informal means as described previously, may be the easiest and most efficient way to increase the use of ATS to access BLM lands. However, several other strategies or actions are also relatively simple and may not require the extensive planning efforts or capital investment of other ATS implementation.

- Add signage to direct existing bicyclist and pedestrians on formalized nonmotorized trail networks to BLM sites. This may be done in conjunction with local transportation departments or trail maintenance agencies. Signage may also be able to direct visitors to bicycle- or pedestrian-friendly routes to access BLM sites that deviate from formal nonmotorized trail infrastructure or in areas without designated bicycle and pedestrian facilities.
- Implement small-scale capital improvements to enhance safety and comfort for nonmotorized connections. These may be implemented with small amounts of BLM funding or in conjunction with local transportation departments:
    - Provide bicycle racks at trailheads
    - Add pedestrian crosswalks along access routes or high-speed roads
    - Add or lengthen signalization for bicycle and pedestrian road crossings
    - Connect missing sections of sidewalks

Scenes from the Burning Man festival at Black Rock Desert NCA. Photo courtesy of the BLM.

Festivals and One-Time Events

Several BLM sites experience significant peaks in visitation during one specific time period, usually associated with a special event. While regular or even seasonal ATS may be unfeasible at these sites, agency staff can plan to integrate ATS into these peak visitation periods as a means to decrease congestion, lessen the environmental impact, and enhance visitor experience.

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was designed to be open source so as to be easily adaptable by other transit agencies. The website can be found at: http://www.transitandtrails.org/.

State staff could identify major events or peak visitation periods at BLM sites within their state and work with field office staff, event organizers, and transportation providers to do the following:

- Identify the origins of visitors
- Identify key transportation needs before, during, and after the event
- Enlist transportation providers to offer bus service to and from the event or shuttle service within the site or to popular destinations near the site
- Work with event organizers to determine funding availability or supplements for ATS

Events and peak visitation periods identified during the inventory research that may benefit from this type of planning include the Burning Man festival in Black Rock Desert NCA, which attracts upwards of 30,000 festival-goers, and the town of Quartsite in Arizona, which attracts thousands of residents to BLM campgrounds for several weeks during the winter.

Long-Term Strategies

In addition to the abovementioned opportunities, which can serve to increase ATS in the short-term and enhance use of existing ATS, the agency should also consider long-term strategies to increase ATS and consider ATS in long-range plans.

- Staff training and outreach: Some BLM staff is currently using ATS as a tool to improve the visitor experience and protect BLM resources, but other staff is unaware of the benefits or potential of ATS. The creation of a formalized method to introduce site and field office staff to ATS may be the best way to increase appropriate the implementation of ATS on BLM lands. This program may consist of formal trainings (e.g. webinars, conferences, presentations at regional meetings, etc.) or outreach materials (e.g. internal website, handbooks on connecting with local partners, materials on best practices in transportation planning, etc.).
- Integrate ATS into planning processes: RMPs provide field office staff with a good opportunity to interact with stakeholders and consider long-term needs. At the agency level, the BLM can incorporate transportation (and alternative transportation, in particular) both as a source of impacts to resources and as a tool for resource protection and visitor management. The Hassayampa Field Office offers a good model of forming partnerships through the RMP process that resulted in new funding for transportation planning. At the national level, the FSTP can solicit ATS information as part of data requests for their transportation and asset management databases. This can contribute to more complete information about where ATS is already operational, new opportunities, and areas in need of greater assistance.
- Targeted site outreach and technical assistance: The BLM may consider establishing criteria to prioritize technical assistance and allotment of training funds to field offices and sites. This Report identifies dozens of short- and long-term opportunities for new or improved ATS. By establishing a formal outreach and technical assistance system, the agency may be able to most strategically meet the needs of the most sites. These criteria may be based on TRIP grant selection criteria, feasibility, staff capacity, and/or cost-efficiency. Such criteria may also be useful in targeting outreach to BLM sites and field offices and identifying future ATS needs.

Sites with Long-Term ATS Potential

Agency leadership should focus planning efforts and resources on sites identified in this Inventory Report, or identified by other means, as having high long-term ATS potential. In the near-term, agency leadership at the state and national level can help field office staff pursue actions to enable the future implementation of ATS: form partnerships, participate in regional planning efforts, track visitation, fund and complete planning studies, and identify resources for capital and operation costs. ATS can and should also be integrated into long-term plans for the site, field office, or state to allocate resources and staff accordingly. Finally, at these and other sites, transportation planning efforts should be prioritized and knowledge about these efforts disseminated among all staff so as to ensure a continuity of knowledge among transitioning personnel.

Rafting on the Blackfoot River in Montana. Photo courtesy of the BLM.

Sites or field offices with long-term potential for ATS include (in addition to sites mentioned previously):

- Black Canyon, Yuma, and Kingsman (AZ)
- Emerald Mountain and Durango Donut (CO)
- Emerald Mountain (currently in development near Steamboat Springs) (CO)
- Pocatello and Payette River (ID)
- Blackfoot recreation site (MT)
- Yellowstone Business Partnership (MT)
- Shotgun (OR)
- Price and Monticello F.O. for river shuttle services (UT)

In addition to these sites, many other BLM sites listed in the ATS Inventory have informal ATS or ATS that is not officially coordinated with BLM management. While many of these examples are already encouraging mode shift and reducing environmental impact, the BLM could work with partners (e.g. local governments or tour companies) to formalize shuttle service or nonmotorized connections and better promote these as attractive options for site access. In that capacity, almost all of the existing and potential ATS included in the Inventory also have the potential to be enhanced in order to better serve BLM sites and their visitors.

Conclusions

The visitors who recreate on BLM lands have unique transportation needs and constraints, largely influenced by the rural and dispersed nature of many BLM sites. However, the agency owns and manages a range of recreation sites and visitor amenities, leading to diverse types of ATS that can effectively serve

visitors. Recognizing the variation among BLM lands, the most successful ATS system is one that considers and adapts to the site's location, characteristics, and visitation patterns.

While many kinds of alternative transportation can effectively serve BLM sites, most ATS must be compatible with the lower visitation levels and rural locations that largely characterize the agency's lands. Connections to regional transit service, nonmotorized infrastructure, and private shuttle and bus operations all offer collaborative models that may be less resource-intensive than traditional ATS. Each of these ATS modes relies heavily on partnerships with governmental agencies, nonprofit organizations, foundations, and private companies. One of the strongest proactive steps that the BLM as an agency can take to increase ATS connections is to formally and informally encourage these interagency partnerships.

The BLM can take other actions that will encourage and increase ATS connections to agency sites. These include undertaking marketing and outreach efforts, promoting technical assistance resources to help site and field office staff with transportation planning, creating formalized strategies to target ATS technical assistance, and incorporating ATS into long-term agency plans (at national, state, and regional scales). Early investments in planning for ATS will have long-term benefits for the region in terms of visitor experience, congestion reduction, and reduced impact on natural and cultural resources.

Investment and planning for ATS, both in the near- and long-terms, addresses important BLM goals for visitor access, visitor enjoyment, resource conservation, and management strategies. Through the incorporation of site-appropriate ATS, the agency can gain benefits from ATS despite lower visitation or congestion levels. This BLM ATS Inventory Report represents a starting point, demonstrating that the BLM already is taking advantage of alternative modes of visitor access and identifying a wealth of opportunities to expand access in the future.

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Appendix A: ATS Inventory

Connections to Regional Transit

Site	Location	Mode	Transit Agency	Distance of Stop/Station	Hours of Operation	Estimated Ridership to Site	Average / Peak Site Visitation	Area of service / connections	Notes
Campbell Creek / Science Center	Anchorage, AK	Bus	Anchorage PeopleMover	2-3 miles (but routes pass within 1-2 miles of entrance)			High visitation site	Anchorage metro area	
Durango Donut Recreation Area	Durango, CO	Bus	Durango						POTENTIAL - NEED MORE RESEARCH
Emerald Mountain	Steamboat Springs, CO	Bus							FUTURE POTENTIAL
General recreation sites in Rio Puerco F.O.	Albuquerque and Sante Fe, NM	Light rail	New Mexico Rail Runner Expresss		5 a.m. - 9 p.m.	Anecdotally some light rail riders take bikes on rail and use it to access public lands.		I-25 corridor	May not directly access public lands but passes through BLM lands. Best access is probably "gateway" access.
Hardscrabble	Eagle and Gypsum, CO	Bus	ECO (Eagle County)	Definitely accessible by transit to bike, maybe by foot	5 a.m. - 10 p.m.			I-70 corridor, including Vail	Potential stop at Dotsero-Ute trail
Red Hill Special Recreation Area	Carbondale, CO (Glenwood Springs F.O.)	Bus (Future BRT)	Roaring Fork Valley Transit Authority (RFTA)	Less than 1 mile				Aspen to Glenwood Springs	Potential underpass to accommodate transit rider passage beneath Hwy 82
Rivers to Ridge Trail System	Boise, ID	Bus	Valley Ride	Very close (<0.5 miles), several stops at/near trailheads	A.M.- P.M., 6 days a week	Probably not high transit ridership to trailheads		Boise metropolitan area	BLM, USFS, and IDL jointly manage trail system
West Eugene Wetlands	Eugene, OR	Bus	Lane Transit (LTD)	0.5 miles or less (several stops)	7 days a week, 1/2 hour frequency (less on weekends)	Unknown	At least 8000 annually	Eugene, OR	Several bus stops along W11, a major arterial that runs through park, including two serving environmental education center site. Future BRT planned.
Wildwood Recreation Site	Sandy, OR (Salem F.O.)	Bus	Sandy Transit	Several hundred yards	6 daily trips, weekdays only	Anecdotally backpackers accessing the Salmon Huckelberry Wilderness (USFS, adjoins Wildwood) use the bus to avoid long-term parking.		Highway 26 to Sandy (with potential connections to the Portland area)	Not heavily used by Wildwood visitors. No service on weekends.
Yaquina Head	Lincoln, OR	Bus	Lincoln County Transit	Entrance of site	7:30 a.m. - 5:30 p.m., 7 days a week (every 1-2 hrs)	Limited, probably only a few locals/volunteers	Very high visitation	Newport, OR	Opportunity to better advertise transit connection to tourists
Yellowstone Business Partnership	Near Bozeman and Billings, MT	Transit service	NA	NA	NA	Very high visitation and anticipated demand		Yellowstone National Park, Bozeman, Billings, and surrounding public lands (including BLM)	Multi-agency working group to establish shuttle or transit service to help visitors access public lands from urban areas.

Non-Motorized

Site	Location	Type of Infrastructure	Name of Trail (if applicable)	Length of Trail	Trail Surface	Other Nonmotorized Amenities	Ownership / Maintenance	Use	Relationship to BLM	Funding Source	Connections to Urban Areas	Year Built	Notes
Black Canyon Trail	North of Phoenix, AZ	Recreational trail	Black Canyon Trail	78 miles (20-30 miles in use now)	Unpaved		Parternships, counties	Hiking, mountain biking, horseback riding	Crosses BLM lands		Many residential communities around Phoenix	Ongoing	
Bloody Shins (and future Winnemucca) Trail	Winnemucca, NV	Bicycle/ pedestrian connection to recreation trail	Bloody Shins Trail	1 mile from town	Paved roads leading to trail, unpaved trails	No formal bike lanes or sidewalks; low traffic rural roads	City and County roads	Mostly local residents but some visitors invited by local bike shop owner	Accesses BLM lands		Winnemucca (population 8,000)		No need for new bike lanes; many avid outdoor local residents walk or bike to trails on low-traffic rural roads.
Cerbat Hills	Kingman, AZ	Pedestrian/bike connections	Cerbat Hills		Unpaved		Town of Kingman	Local residents	Trail system in BLM lands		Kingman		
Foothills Trail System	Yuma, AZ	Pedestrian/bike connections	Foothills Trail System	A few miles from Yuma			City and hiking interest groups	Local residents	Trail system in BLM lands		Yuma	Ongoing	POTENTIAL
Hardscrabble	Eagle and Gypsum, CO	Bike lanes in Eagle, sidewalks	Hardscrabble trail system		Paved infrastructure in town, unpaved trails	Most people bike to trails and use bikes on trails	Town of Eagle	Estimate that at least half of visitors access Hardscrabble by foot or by bike; most users are local	Trail system in BLM lands	Town	Eagle, Gypsum		Recently more marketing of these trails to tourists or non-local residents
Lake Havasu City	Lake Havasu City, AZ	Bike lanes/path			Paved		City of Lake Havasu	Visitors, campers	Near popular BLM camping areas	City	Lake Havasu		Conceptual idea to connect Lake Havasu City with the Parker Dam and bill Williams Wildlife Refuge; trail should serve BLM camping areas and allow BLM to serve winter users at camp sites (popular with summer boaters)
Modoc Line	Alturas, CA	Recreational trail	Modoc Line	85 miles	Unpaved (heavily ballasted areas and some cindered base, potential for some future paving)	Most local users will bike or walk to trail	BLM, Lassen Land and Trails Trust	Mix of locals and toursts	Crosses through BLM lands and accesses hunting and recreation areas.	Lassen Land and Trails Trust	Connects to several very small towns	Not built yet	
North Moab Recreation Area	Moab, UT	Pedestrian/bike connections		15 miles	Paved	Bicycle/pedestrian bridge over the Colorado River	Grand County Utah (partnership with BLM and NPS)	Anticipated 500,000 users annually	Trail system in and connecting to BLM lands	40% from TRIP program (grant recipient in 2007 and 2008), the rest from private, State,	Moab	Ongoing	
Red Hill Special Recreation Area	Carbondale, CO (Glenwood Springs F.O.)	Pedestrian/bike connections	Rio Grande Trail	41 miles	Paved and gravel	Sidewalks connecting Carbondale with Red Hill; pedestrian signal	Roaring Fork Transit Authority (RFTA)	Local and regional residents; bicyclists and pedestrians	Crosses through or close to BLM lands	RFTA	Aspen, Glenwood Springs, Carbondale	2008	
Redding	Redding, CA	Urban trail network	Redding Trails and Sacramento River Rail Trail	80 miles	Paved and natural surface		Partnership between BLM, City of Redding, Shasta County, McConnell Foundation, and Redding Foundation	Local residents, commuters	Trail network largely built on BLM lands (leftover mining lands)	Private foundations and BLM	Redding and surrounding area (population 100,000)	1983 - present (60 miles built in last 4 years)	BLM field office staff have been very involved in planning and implementation. They are always looking for more implementation money. They'd also like to do more paving to accommodate cyclists.
River to Ridge Trail System	Boise, ID	Sidewalk and bike lane system	River to Ridge Trail System and regional greenbelt bike trail		Paved walks and bike lanes	Small open space areas in residential neighborhoods provide off-road links; bike racks on buses	Boise Parks and Recreation and Transportation Dpts	Local residents	Trail system connects to BLM lands	City of Boise	Boise and surrounding areas		
Row River Trail	Cottage Grove, OR	Recreational trail	Row River Trail	15.6 miles	Paved		BLM maintains about 13 miles of trail and Cottage Grove maintains the last 3 miles to connect to the City Center.	Cottage Grove residents and regional visitors	Most of the trail is on BLM lands	BLM	Cottage Grove	1994	A management plan for the Row River Corridor calls for a link to the USFS network (5-10 miles away). Private land owners have asked FMLAs about their interest. Funding not identified.
Sandy Ridge Trail System	Sandy, OR (Salem F.O.)	Pedestrian/bike connections; formal bike path on Hwy 26 leading to site.	Sandy ridge Trail system	15 miles of nonmotorized recreation use	Paved roads leading to trail, unpaved trails		BLM owns trail system; County roads and U.S. Hwy 26 leading to site	Residents of surrounding rural neighborhoods will likely bike or walk to access trail system.	Accesses BLM lands		None		Newly-developed hiking and mountain bike trail system located 1 mile from the popular Wildwood Recreation Site.
Shotgun	Eugene, OR	OHV and nonmotorized trail network	Shotgun		Unpaved	Sanitation facilities, picnic tables, and kiosks near trailheads	BLM	Local, rural residents; recreation, mostly motorized	BLM recreation site		Eugene		Site is far enough from Eugene that only "hard-core" cyclists bike through County roads to access site. Most residents drive their bikes to the staging areas.
West Eugene Wetlands	Eugene, OR	Urban bike path	Fern Ridge Bike Path	4 miles	Paved	BLM site has 2.5 mile paved trail that connects to Fern Ridge path and bike racks for cyclists to lock up bikes at trailheads.	City of Eugene	Local residents	Path accesses BLM lands and is in BLM lands	Within site: T2000 and ISTEA funds	Eugene and bedroom communities		

Shuttles and Tour Buses

Site	Location	Vehicle Type	Seasonality	Capacity / Use	Ownership	Average / Peak Visitation	Number of Companies Serving Site	Relationship to BLM	Geographic Bounds	Notes
Black Rock NCA	Gerlach, NV	Tour bus	Aug-Sep	Burning Man festival-goers	Various bus companies	300,000 for one-week period		Held on BLM lands		Several bus companies bring festival-goers to the site for a one-week festival.
Blackfoot Recreation Site	Blackfoot River, Missoula F.O., MT	Shuttle	Summer, some fall	Mostly tubers (July - Aug) plus some whitewater (May-June) and fishing (fall); shuttle service served under 500 tubers per season	Blackfoot River Rentals (former)	15,000 tubers during 6 week peak season	2 serving fishing and white water rafting (equipment shuttling only)	Permitted by BLM	Serves Missoula, 17 miles away	Blackfoot Express went out of business because the business failed in their other operations. High potential.
Campbell Creek Park and Science Center	Anchorage, AK	School bus	School year							
Coeur d' Alene	ID	Shuttle			Private outfitter guides		Many	Guides must be registered with BLM		
Dalton Highway	Livengood to Deadhorse (Fairbanks F.O.), AK	Tour bus	May - Sep		Princess, Greyhound, Holland America		3+	No formal relationship	Fairbanks to Deadhorse	Highway passes through BLM land; popular with tour companies doing one-way bus tours with interpretive stops in BLM lands
Gila Box	AZ	Shuttle service and specialized birding tours								
Gulkana River	Fairbanks to Beaver Creek, AK (Fairbanks F.O.)	Shuttle, air taxi	Summer	Highest use area in AK BLM	Various outfitter guides			Permits to operate	Gulkana River area	Float tours, guided fishing trips
Mineral Ridge	ID	Shuttle			Private outfitter guides		Many	Guides must be registered with BLM		
North Moab Recreation Area	Moab, UT	Intermodal transit hub (accommodate shuttles)		Anticipated use of 500,000 annually	Grand County Utah (partnership with BLM and NPS)	10,000 (peak)/ 2.5 million annual (including Arches National Park)		Transportation hub in and connecting to BLM lands	Moab	Funding is 40% from TRIP program (grant recipient in 2007 and 2008), the rest from private, State, local, and Federal sources
Paria Canyon	AZ	Personal vehicles shuttle			Local operations, native tribes					
Payette River Complex	ID	Shuttle	Summer	Raft/float trips	Private outfitter guides			Guides must be registered with BLM		Potential for BLM/USFS shuttle; jointly managed area
Platte River	Cody F.O., WY	Shuttle	Spring to Fall	Trout fishing	Private outfitter guides			Serves BLM lands		There may or may not already be private shuttles operating here.
Pumphouse and Crumbling, Upper Colorado River	Colorado (Buena and Salida Vista area)	Shuttle	Spring to Fall	Rafting	Private operators			Permits to operate	Upper Colorado River, shuttles to Salida and Buena Vista	
Red Rocks Canyon National Conservation Area	Las Vegas, NV	Tour bus	Spring, Fall	Tourists from Las Vegas	Various tour companies	850,000 annually; day peak is 1,800		Pay admission fees to enter site		Red Rock is also considering a shuttle service on Loop Drive, potential TRIP application
River recreation sites in Pinedale and Rollins Field Offices	Wyoming	Shuttle	Summer	River recreation	Private outfitter guides			Serves BLM lands	Pinedale is close to Jackson	Very little details from State Recreation Lead
San Miguel River	Telluride, CO	Shuttle	Spring to Fall	Float trips						
San Pedro Riparian NC	AZ	Tour bus								
Upper, Mid, and Lower Madison River	Outside of Dillon, MT	Shuttle	Summer, some fall	Upper and Middle Madison: fishing and whitewater rafting; Lower Madison: fishing and inner tubing	Upper: 6 private companies; Middle: 2 whitewater guides; Lower: 1 operator	Lots of traffic to Lower site (30 miles from Bozeman)	9 total	Must have permits from BLM and comply with State and BLM regulations		Lower Madison guide is not able to offer shuttle services into Bozeman, trying to make that urban connection
West Eugene Wetlands	Eugene, OR	School bus	School year	Environmental education school field trips		6,000 schoolchildren visit site annually (200 buses)		Education programs on BLM lands	Eugene area	New environmental education center will serve more schoolchildren; currently visitors are served out of a yurt.
West Water Canyon, Green River, San Juan River	Utah (Price and Monticello F.O.)	Shuttle	Spring to Fall	Rafting	Private outfitter guides			Serves BLM lands		Rivers run through multiple jurisdictions (tribal, NPS, BLM). If ATS were instituted formally, it would be collaborative and interagency.
Wildwood Recreation Site	Sandy, OR	School bus	Summer	School field trips, scout groups, high school sports teams training on Mt. Hood	Various bus companies	5,000 schoolchildren annually		Serves BLM lands	Serves Portland metropolitan area	Bus access accounts for about 10% of total site visitation.
Yaquina Head	Lincoln, OR	Shuttle		Community residents	Community group out of Nye Beach	Very high visitation		Serves BLM lands	Newport/ Nye	Yaquina Head staff are working on an agreement for shuttle users to get into site without paying user fee (shuttle would pay in one lump sum).

BLM

The Bureau of Land Management was established in 1946 and is part of the U.S. Department of the Interior. We manage public lands, mostly in the 12 Western states, that encompass 258 million acres — an area equivalent to the size of Texas and New England combined — and 700 million acres of subsurface mineral estate.

U.S. Department of the Interior
Ken Salazar, Secretary

Bureau of Land Management
Bob Abbey, Director

For more information about Transportation on BLM lands see:
www.blm.gov/wo/st/en/prog/Recreation/recreation_national/travel_management/visitor_safety.html