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Canyon Rims (Indian Creek) Travel Management Plan Environmental Assessment

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1. INTRODUCTION AND BACKGROUND

1.1 Introduction

The Canyon Rims Travel Management Plan (TMP) will establish and implement a comprehensive travel network of motorized routes and trails, as well as provide for the long-term operation, monitoring, and maintenance details for the network. The Canyon Rims TMP, when adopted, will consist of individual travel route designations that comprise the network, an environmental assessment (EA) analyzing the route and network designation alternatives, and a TMP Implementation Guide (Appendix L) that will support implementing the designations. This EA provides analysis of the proposed route network and alternatives' potential impacts on the Travel Management Area's (TMA) natural and human environment. Impact analysis is based on issues raised during scoping. The final motorized travel network will be developed from the range of alternatives considered in this EA, and may include the modification of an alternative or a combination of the alternatives.

This EA is prepared in compliance with the National Environmental Policy Act (NEPA) and will assist the Bureau of Land Management (BLM) decision maker in determining whether any "significant" impacts could result from implementing the project. Following a public review and the BLM making any appropriate changes to the EA, if there are no significant impacts anticipated the BLM will prepare a Finding of No Significant Impact (FONSI) and a signed Decision Record (DR) would be issued. The DR documents the decision regarding the selected travel route network that would be carried forward for this project. The TMP may then be implemented after all other program-specific procedural requirements (i.e., applicable protest and appeals procedures) have been met.

1.2 Proposed Action

The BLM's Moab Field Office (FO) is proposing to designate an off-highway vehicle (OHV) travel route network consisting of approximately 272.5 miles of currently designated travel routes on an estimated 90,955 acres of BLM lands in the Canyon Rims TMA (see map in Appendix I), which was referred to as "Indian Creek" in the settlement agreement reached in *Southern Utah Wilderness Alliance, et al. v. U.S. Department of the Interior, et al.*, U.S. District Court (D. Utah) Consolidated Case No. 2:12-cv-257, hereinafter referred to as the 2017 Settlement Agreement,[1] and which initiated this planning effort. According to the BLM travel management manual, in the context of BLM planning, an OHV is "any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain . . ." (BLM 2016b). Emergency motorized vehicles used for emergency purposes and certain authorized motorized vehicles are not considered OHVs in BLM planning (BLM 2016b). Though the term "OHV" is associated with off-road vehicles, in BLM planning, OHVs include full-size cars and trucks as well as utility terrain vehicles (UTVs), all-terrain vehicles (ATVs), motorcycles, etc., when in use by the general public. A travel route network is a network of

[1]The 2017 Settlement Agreement can be accessed online at https://www.doi.gov/sites/doi.gov/files/agreements-settlements/document/suwa-ex-1-settlement-agreement-101718.pdf

routes occurring on public lands—or within easements granted to the BLM—that are recognized, designated, decided upon, or otherwise authorized for use. This project is only making OHV designation decisions on networks of routes (the OHV designations assigned in this project are defined in section 2.1.4). Therefore, the scope of this project only involves OHV designation of routes.

The designated network will be implemented, operated, and maintained according to the network's route designations and the TMP Implementation Guide (see Appendix L). The travel network route designations chosen for this project will replace the route designations assigned in the TMA by the BLM's 2008 Moab Field Office Record of Decision and Approved Resource Management Plan (2008 RMP). For details on these earlier route designation efforts, see pages 18-20 and 36-37 as well as Appendix N (page N-1) of the 2008 RMP (BLM 2008c). The Proposed Action incorporates updated consideration and evaluation of all inventoried routes in the TMA and establishes a proposed network of routes designated for public OHV uses. Any subsequent route designation(s) will be completed in compliance with NEPA requirements and subject to applicable administrative processes.

1.3 Purpose and Need

The BLM needs to comply with the 2017 Settlement Agreement. As part of this agreement, the BLM committed, among other things, to issue a new TMP for the Canyon Rims (formerly Indian Creek) TMA. Moreover, the proposed TMP helps the BLM comply with Presidential Executive Orders 11644 and 11989, which state that TMPs be developed to protect the natural resources of public lands while minimizing conflicts among the various users of those lands.

This proposed TMP brings travel management in the Canyon Rims TMA into compliance with the 2017 Settlement Agreement and the 43 CFR 8342.1 route designation criteria. It also provides for a variety of public OHV opportunities, while addressing other applicable laws, regulations, and BLM travel management policies (see section 1.5 and Appendix C for more details on compliance). Additionally, a comprehensive TMP Implementation Guide (Appendix L) provides details for long-term operation and maintenance of the network, and for enhancements to user navigation.

1.4 Background and TMA Overview

The 2017 Settlement Agreement refers to this area as the "Indian Creek" TMA; however, BLM has chosen to refer to the TMA as "Canyon Rims" to more accurately reflect its geographic location (see map in Appendix I). The Canyon Rims TMA covers about 91,000 acres of high plateau in northern San Juan County, Utah. It lies west of U.S. Highway 191 and south of Moab. The area, also referred to as Hatch Point, is primarily used for livestock grazing, recreation, and mineral and energy exploration. The most popular recreational activities in the TMA are sightseeing by vehicular travel, hiking, and backpacking. The northern end of the area accesses the Anticline Overlook near Hatch Point with expansive views of the Lockhart Basin and Colorado River, looking north toward Dead Horse Point State Park. The southern end includes Windwhistle Campground, a quiet but popular developed campground in this less-visited area of the Moab FO. The Canyon Rims TMA includes several scenic overlooks, two developed

campgrounds (Windwhistle and Hatch Point), the Trough Springs Trailhead, and various off-highway and backcountry recreation opportunities. The area's features include canyons, cliffs, mesas, and flat, grassy plains. The TMA also includes the Shafer Basin area south of Dead Horse Point State Park. The entire TMA is managed in the 2008 RMP as part of two Special Recreation Management Areas (SRMAs): the northern unit (Shafer Basin) of the TMA is part of the Colorado Riverway SRMA, and the larger southern unit (Hatch Point) is part of the Canyon Rims SRMA.

As part of its 2008 RMP, an interdisciplinary team (IDT) of BLM specialists and cooperators completed a travel plan for the entire Moab field office (see 2008 RMP, Appendix N). In the 2008 travel plan, the BLM designated 272.5 miles of routes for OHV use in the Canyon Rims TMA while closing 21.1 inventoried route miles to all motorized use and earmarking them for reclamation, offering protections for the area's natural and cultural resources. The 2017 Settlement Agreement required the BLM to take a revised look at the designations assigned in 2008, consider any additional travel-related impacts within the TMA (including route proliferation, increased recreation use conflicts, habitat fragmentation, and erosion), and formulate and designate a revised route network. BLM has a responsibility to also respond to management imperatives such as ensuring access to private and State of Utah School and Institutional Trust Lands Administration (SITLA) parcels. None of the alternatives will result in the loss of reasonable access to SITLA or other private landowner parcels.

The BLM expects that once the 2017 Settlement Agreement requirements for OHV use are met, additional efforts may be pursued to develop plans for nonmotorized trails, as needed. Note that, except for mountain bike use, non-motorized use of the routes in this TMP is allowed regardless of designation. Hikers and horseback riders are not restricted to designated travel, although mountain bikes are. For the Canyon Rims EA, the BLM is electing to defer non-motorized designations to a later date and document (mountain bike use and/or interest in the TMA is very minor). The Moab FO has a long track record of designated non-motorized routes when presented with a reasonable request.

Table 1.1 (below) depicts a breakdown of the major surface management categories in the TMA. Though the BLM is only proposing travel route network designations on BLM-administered lands, consideration of routes, actions, and resources on other jurisdictional lands is taken into account as part of the BLM's travel management cumulative effects analysis.

Table 1.1: TMA Approximate Acreage by Major Landowner/Agency Administrator

Jurisdiction	BLM	State	Private Lands	Total
Acres	90,955	11,141	794	102,890
% of TMA	88.4%	10.8%	0.8%	100%

1.5 Conformance with Management Plans and Policies

The action alternatives described in this document are in conformance with applicable management direction, including the 2008 RMP, which provides overarching management decisions, goals, and guidance for this travel planning effort. RMP decisions and goals to which this project conforms are listed below. The evaluation criteria used during route evaluation are

tied to RMP decisions and goals and are listed in route reports (see Appendix H for route report details).

Table 1.2: Key RMP Travel-Related Management Decisions and Goals

Transportation	
TRV-2	BLM, in preparing its RMP designations and its implementation-level travel management plans, is following policy and regulation authority found at: 43 CFR Part 8340; 43 CFR Subpart 8364; and 43 CFR Subpart 9268.
TRV-3	Provide opportunities for a range of motorized recreation experiences on public lands while protecting sensitive resources and minimizing conflicts among various users. Identification of specific designated routes will be initially established through the chosen Travel Plan accompanying this RMP (see Appendix N) and may be modified through subsequent implementation planning and project planning on a case-by-case basis. These identified routes will be available regardless of other management actions. These adjustments will occur only in areas with limited route designations and will be analyzed at the implementation planning level. These adjustments will be done through a collaborative process with local government and will include public review of proposed route changes. Site-specific NEPA documentation will be required for changes to the route designation system.
TRV-4	All areas are limited, open, or closed to motorized travel. Limit travel by motorized vehicle on all lands administered by the Moab FO to designated routes, except for Managed Open Areas, and for areas that are closed to motorized travel (see Map 30; see Appendix N for Travel Plan development).
TRV-5	BLM could impose limitations on types of vehicle allowed on specific designated routes if monitoring indicates that a particular type of vehicle is causing disturbance to the soil, wildlife, wildlife habitat, cultural or vegetative resources, especially by off-road travel in an area that is limited to designated roads.
TRV-6	OHV access for game retrieval, antler collection and dispersed camping will only be allowed on designated routes (designated routes/spurs and have been identified specifically for dispersed camping; parking areas associated with dispersed campsites will be marked during travel plan implementation). Adherence to the Travel Plan is required for all activities, except where otherwise explicitly permitted.
TRV-7	Only designated roads and managed open areas are available for motorized commercial and organized group use (see Maps 2 and 3 for route designations).
TRV-8	Where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse impacts, the authorized officer shall close or restrict such areas. The public will be notified as to these closures and restrictions.
TRV-9	Any routes that are not baseline routes will be signed "Closed" on the ground. Such routes will be considered as impacts to the area's natural character, and use of such routes will be considered cross country use and not allowed. Non-inventoried routes should be rehabilitated.
TRV-10	**OHV Designations:** • About 339,298 acres will be closed to OHV travel. • About 1,481,334 acres will be limited to designated routes. • Approximately 2,000 acres (White Wash Sand Dunes) will be open to cross country travel (see Map 30).
TRV-11	**Designated Routes – Motorized:** • Designate 3,693 miles of motorized routes. • Designate 313 miles for motorcycles (163 miles on inventoried routes and 150 miles on inventoried single-track). • Designate a dirt bike route from Colorado State Line to Thompson (see Map 3), utilizing 9 miles of single-track designated above and 22 miles of inventoried Grand County roads. These totals are reflected in the mileage under "designated routes."

Recreation and Off-Highway Vehicles	
REC-2	Where unacceptable damage to natural or cultural resources by recreational use is anticipated or observed, BLM will seek to limit or control activities by managing the nature and extent of the activity or by providing site improvements that make the activity more sustainable or by a combination of management controls and facility development. Such management actions will seek to reduce or eliminate the adverse impact while maintaining the economic benefits associated with a wide range of recreation uses.
REC-3	BLM will consider and, where appropriate, implement management methods to protect riparian resources, special status species, and wildlife habitat while enhancing recreation opportunities. Management methods may include limitation of visitor numbers, camping and travel controls, implementation of fees, alteration of when use takes place, and other similar actions to be approved through normal BLM procedures.
REC-5	Recreational off-highway vehicle (OHV) and mechanized travel will be consistent with area and route designations described in the travel management plan. BLM will work with agency and government officials and permit holders to develop procedures, protocols, permits or other types of authorization, as appropriate, to provide reasonable access for non-recreational use of OHVs for military, search and rescue, emergency, administrative, and permitted uses.
REC-6	Dispersed camping is allowed where not specifically restricted. Dispersed camping may be closed seasonally or as impacts or environmental conditions warrant. All vehicle use associated with dispersed camping activities is required to stay on designated routes.
REC-14	Continue to manage Kane Creek Road to Hurrah Pass and the roads to Needles, Anticline, and Minor overlooks as Utah Scenic Backways.
REC-33	Focus Areas are Recreation Management Zones (RMZ) for emphasizing particular types of recreation activities while still allowing for other uses in accordance with the Travel Plan. As RMZs, Focus Areas (Map 18) are established as a mechanism for enhancing specific recreation opportunities through facilities and education such as route marking, parking, camping, and information. Where a single focus SRMA or a specific RMZ (Focus Area) is not identified, the default focus of that area is motorized, backcountry touring on designated roads. The roads are those identified in the Travel Plan accompanying this RMP.
REC-34	The types of Focus Areas are: Non-mechanized Recreation, Mountain Bike Backcountry Touring, Motorized Backcountry Touring, Scenic Driving Corridors, Specialized Sport Venue Non-motorized, Specialized Sport Venue Motorized, and Managed Open OHV Area.
REC-36	Canyon Rims SRMA (excerpts): • Manage the entire area as OHV travel limited to designated roads. • Manage Hatch Wash and the lower section of West Coyote Creek for primitive, nonmotorized recreation. • Restrict backcountry motorized events to commercial and non-race special events on the Flat Iron Mesa Jeep Safari route only. Focus Area -- Non-mechanized Recreation (3,642 acres): Hatch Wash Hiking and Backpacking Focus Area inclusive of the area from Goodman Canyon to the confluence of Hatch Wash with Kane Creek Canyon including the lower section of West Coyote Creek (from private land west to confluence with Hatch Wash) and the lower section of Troutwater Canyon. • New motorized routes will not be considered in the Hatch Wash Hiking and Backpacking Focus Area. • **Focus Area -- Scenic Driving Corridors:** Needles and Anticline Roads – Utah Scenic Backways. Manage for scenic driving enjoyment. The corridor is defined as having a width of 1/2 mile from centerline (or to border of adjoining Focus Area).
REC-37	Colorado Riverway SRMA (excerpts): • Manage the Colorado Riverway as a Destination SRMA to manage camping, boating, river access, trail, and interpretive facilities in popular areas along or near the Colorado River and to protect the outstanding resource values of the area. Guidance for management is included in the Colorado Riverway Recreation Area Management Plan.

	• Manage the Kane Creek Crossing area to emphasize responsible designated camping and scenic touring. • Manage the Shafer Basin addition to emphasize scenic backcountry driving opportunities (no camping allowed in this area). • Restrict motorized and mechanized travel to designated routes. • **Focus Areas -- Scenic Driving Corridors:** These corridors include Highways 128 and 279 (which are both designated Utah Scenic Byways), as well as the Kane Creek/Hurrah Pass portion of the Lockhart Basin Scenic Backway and the BLM portion of the La Sal Mountain Loop Road Scenic Backway. Manage for scenic driving enjoyment. The corridor is defined as having a width of 1/2 mile from centerline, or line of sight or to border of adjoining Focus Area (whichever is shorter; see VRM for management prescriptions).
Other Resources and Off-Highway Vehicles	
SOL-WAT-20	No additional OHV routes will be allowed in saline soils other than those already designated in the Travel Plan accompanying this RMP (see Appendix N). An exception will be considered on a case-by-case basis for proposed routes in the Dee Pass Motorized Focus Area and in the Utah Rims SRMA. Exceptions could also be considered on a case-by-case basis outside these two areas if potential impacts could be mitigated and if the action will benefit other natural and cultural resources.
WSR-4	OHV travel will be limited to designated routes or closed, depending on the river segment.

The proposed route networks analyzed in the action alternatives were also designed in accord with the requirements and guidance in Executive Orders 11644 and 11989, 43 CFR 8342.1, Manual 1626, and Handbook 8342. Table 1.3 provides a summary of the designation criteria in 43 CFR § 8342.1. The BLM's IDT consideration and application of the designation criteria to each route considered for designation in the action alternative networks are further detailed in Chapter 2.

Table 1.3: 43 CFR § 8342.1 Designation Criteria

(a)	Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
(b)	Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
(c)	Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
(d)	Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

Additionally, the development of action alternatives conforms with the procedural and documentation requirements of the 2017 Settlement Agreement.

With respect to the National Historic Preservation Act (NHPA), the BLM considered adverse effects to historic properties in accordance with the requirements of the *2018 Programmatic Agreement Among the Advisory Council on Historic Preservation, The Bureau of Land Management-Utah and the Utah State Historic Preservation Office Regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings* (Travel PA).

Though the BLM is not required to adhere to county plans, the IDT took into consideration the San Juan County RMP and Travel Plan.

1.6 Scoping and Issue Identification

1.6.1 Overview

Internal (BLM and Cooperators) and external (public) scoping identified route-related issues that could affect the natural and human environment within the TMA. Key issues—those issues necessary to make a reasoned choice between alternatives or to determine the significance of impacts—were brought forward for detailed analysis in this EA and are discussed below. An initial round of public scoping occurred from August-September 2019 and resulted in 7 comment letters. Chapter 4 and Appendix D include more details on scoping, including the process and a complete issue list. The issues listed in the Appendix D table were developed based on both public comment review and interviews with BLM specialists.

1.6.2 Issues Carried Forward for Detailed Analysis

In developing a TMP, it is important for decision-makers and the public to understand the impacts that each of the alternative travel networks would have on specific resources; to this end, the Moab FO IDT identified resource topic(s) that could potentially be impacted. The key issues and their associated resource topics are presented below in Table 1.4. The resource topics help organize and refine the discussions of the affected environment and environmental effects in Chapter 3.

Table 1.4: Key Issues and Related Resource Topics

Key Issue	**Resource Topics** (those resources, resource uses, and social and economic values potentially impacted by an alternative travel network)
1. Travel network effects on the TMA's natural and human environment	• Cultural Resources • Lands with Wilderness Characteristics • Soils, Native Vegetation, and Weeds and Invasive Species • Special Designation Areas • Visual Resource Management • Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality • Wildlife: Fish (T&E and Utah BLM Sensitive Species) • Wildlife: General Wildlife • Wildlife: Migratory Birds, Including Raptors • Wildlife: Special Status Species Animals (Federally Listed and Utah BLM Sensitive Species)
2. Providing for recreation opportunities and experiences	• Recreation

A full list of identified resource values, land uses, and special designation areas that occur in the TMA can be found in Appendix E: Interdisciplinary Team Checklist.

1.6.3 Resource/Use Topics Identified, but Eliminated from Detailed Analysis

Some issues raised during scoping were beyond the scope of this project, were not substantive, or were not helpful in making reasoned choices among alternatives. Resource/use topics that were identified but eliminated from detailed analysis in the EA can be found in the IDT checklist table in Appendix E. In this table, resource/use topics with a determination of "NI" (Not Impacted) or "NP" (Not Present) were not carried forward for analysis, and relevant details and explanations are provided. Resource topics are not analyzed because they are absent, because there is definite lack of potential for significant impacts, or because the issue is not necessary to make a reasoned choice among alternatives. For a summary informing the determination of NI for Socioeconomics, see Appendix F: Estimated Economic Impact.

2. ALTERNATIVES

2.1 Route Designation Methodology

2.1.1 Overview

A BLM IDT evaluated all OHV travel routes considered for designation in the Canyon Rims TMA and created a preliminary range of alternative travel networks. During evaluation of each travel route, the IDT applied and documented compliance with the 43 CFR 8342.1 designation criteria (i.e., minimization criteria). BLM Manual 1626 explains that the minimization of impacts "means to limit the degree or magnitude of the action and its implementation (40 CFR 1508.20(b) – CEQ Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (BLM 2016b). The BLM route evaluation process along with further review and scoping contributed to the development of a range of reasonable alternatives. Reasonable alternatives are those that "are *practical or feasible* from the technical and economic standpoint and using common sense, rather than simply *desirable*. . ." (BLM 2008a). Each action alternative meets the purpose and need and responds to the key issues described in Chapter 1.

2.1.2 Route Inventory

The Canyon Rims TMA route inventory consists of the route network system designated as part of the 2008 RMP, and includes only routes designated OHV-open in the 2008 RMP. Off-route OHV use in the TMA is rare and new route proliferation is not an issue due to extensive management, thus new routes beyond those designated in the 2008 RMP are not considered through this process.

The route inventory used in the 2008 RMP was verified in 2017 and 2018 using field surveys, aerial imagery, and IDT input. The BLM collected inventory data, which include GPS-collected lines showing route locations and attributes. Data also include GPS-collected points describing travel management-related features on or near routes. During IDT review, some linear features (see Glossary for definition), generally old seismic exploration lines, were identified that are not, nor were ever, routes authorized or designated by the BLM. BLM staff considered these linear features and determined that they were linear disturbances that were inappropriate for designation. None of these linear disturbances were included in any of the route network alternatives.

2.1.3 Route Evaluation

In 2018, the BLM IDT and cooperating agencies began evaluating 272.5 miles of inventoried routes, all of which were designated as OHV-open in the 2008 RMP Travel Plan.

The BLM's route evaluation process included the following components:

- Consideration of the goals and objectives for resource values and uses established in the 2008 RMP
- Consideration and documentation of any purpose and need of the route, including but not limited to activities relating to existing motorized and non-motorized uses for recreation,

livestock grazing, law enforcement, search and rescue, fire suppression, access to private or SITLA lands, mineral exploration and development, administrative access, and authorized motorized travel

- Consideration and documentation of any known or asserted resource or user conflict; and consideration of designating spur routes leading to SITLA lands, facilities, campsites, and other points of interest, which may include overlooks and natural and historic features; and whether there are multiple routes leading to the same location
- Consideration of route locations and characteristics and exploration of alternative opportunities and techniques for avoiding, minimizing, or mitigating project effects to minimize damage, disruption, and conflict with various resources and among users. The BLM also proposed leaving routes open in areas where doing so would involve minimal resource damage or enable minimal resource damage elsewhere by redirecting that travel to routes in less sensitive areas.
- Proposal of individual route designations based on individual alternative themes
- Assessment of how each potential route designation within the TMA is consistent with 43 CFR section 8342.1
- Application of the designation criteria by addressing how each route designation would minimize impacts on resources per 43 CFR 8342.1
- Documentation of rationale for each proposed route designation

During route evaluations, the BLM IDT addressed criteria for assessing alternative route designations that included potential impacts to the resources and uses identified in the table in Appendix E. Criteria related to public access, safety, and user conflicts were also considered (see Route Reports, Appendix H).

2.1.4 Route Designations

Designations were assigned as part of a TMP process that reflects on-the-ground conditions captured by the best available GIS data for the Canyon Rims TMA.

In Table 2.1 and Table 2.2 (below) and tables in Chapter 3, a variety of detailed travel route designations are summarized in broader categories to enable the reader to more easily compare differences between the route network alternatives. The entire variety of individual designations applied during route evaluation are available in the route reports (see Appendix H). In some cases, some form of management (e.g., monitoring) was assigned to routes in conjunction with their individual OHV designations, and details on such management can be found in the route reports. This EA focuses on OHV designations that fall into one of the following categories:

- OHV-Open – Open year-round to all motorized vehicle travel.
- OHV-Closed – Route not available for public motorized vehicle use. (While OHV-Closed is an official designation, these routes are not included in the set of routes that are commonly referred to as "designated routes." That term most often refers to those routes that are available for public motorized uses. For example, many BLM travel networks include signage that states, "motor vehicle travel allowed only on designated routes" or similar language.)

Regardless of route designations, people can engage in non-motorized forms of transportation such as walking or riding horses anywhere on TMA BLM lands (on routes or cross-country), unless there is a specific exclusion stating otherwise. The OHV-Closed category also includes:

- Routes that will not become part of the designated OHV route network and are often earmarked for natural or manual reclamation.
- Routes that remain available for existing authorized or administrative uses. Some of these routes provide access to authorized facilities (i.e., stock tanks and ponds, corrals, communication sites, etc.).
- Routes that remain available for non-OHV use, such as hiking or equestrian trails.

As the need arises, and in accordance with applicable laws and regulations, any route (including those that are designated OHV-Closed) could be made available to authorized or administrative uses.

2.1.5 R.S. 2477 Assertions

The State of Utah and counties may hold valid existing rights-of-way within the TMA pursuant to Revised Statute (R.S.) 2477, Act of July 28 1866, Chapter 262, 8,14; Stat. 252, 253, codified at 43 U.S.C. § 932. This travel planning effort and resulting TMP is not intended to provide any evidence bearing on or to address the validity of any asserted R.S. 2477 rights-of-way and does not adjudicate, analyze, or otherwise determine the validity of any asserted rights-of-way. R.S. 2477 rights are determined through a process that is entirely separate from BLM travel planning efforts. Consequently, this planning effort does not consider any R.S. 2477 assertions or evidence and has no effect on any legal rights relating to asserted R.S. 2477 rights-of-way. At such time as administrative or judicial determinations are made acknowledging or adjudicating asserted R.S. 2477 rights-of-ways, the BLM will adjust its TMP accordingly.

2.2 TMA Route Designation Summary by Alternative

Tables 2.1 and 2.2 summarize the proposed TMA route designations by alternative and the differences in alternatives compared to current management as reflected in the 2008 RMP. OHV route designations are defined above in Section 2.1.4 and on page 7-3 of the BLM Travel and Transportation Management Manual (BLM 2016b). Maps showing proposed route networks and designations for Alternatives A, B, C, and D can be found in Appendix I. Note: the sum of mileage in some columns may differ slightly from the total because of rounding.

Table 2.1: Alternative Mileages by Major Designation

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
All Routes (272.5 miles; 100% of evaluated network)	OHV-Open	272.5	197.5	-75.0	226.6	-45.9	246.0	-26.4
	OHV-Closed	0.0	75.0	75.0	45.9	45.9	26.4	26.4

Table 2.2: Number of Routes by Major Designation

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
All Routes (296 routes; 100% of evaluated network)	OHV-Open	296	109	-187	157	-139	206	-90
	OHV-Closed	0	187	187	139	139	90	90

2.3 Alternative A (No Action)

Alternative A represents the no action alternative and consists of the route designations and management objectives made in the 2008 RMP. Alternative A reflects the total network of evaluated routes considered for designation in this travel planning effort and is used as a baseline for comparison between the alternatives.

In Alternative A, management objectives and route designations for the TMA, as reflected in the 2008 RMP, would be maintained. No route designations would be changed. In Alternative A, all 272.5 miles of routes designated in the 2008 RMP would remain designated as OHV-open. While changes are not proposed under Alternative A, it still provides for continuation of current route use and would have route use-related effects comparable to the action alternatives.

2.4 Alternative B

Alternative B prioritizes protection of wildlife habitats, natural resources, ecosystems, and landscapes. It also represents the alternative from the 2017 Settlement Agreement that would most reduce adverse effects to BLM-inventoried wilderness characteristics by closing all routes located in Lands with Wilderness Characteristics (LWCs) (with the exception of 0.35 miles of route D2613 that accesses a SITLA parcel). OHV use is accordingly more constrained under this alternative than under any other alternative. In Alternative B, 72% of the evaluated network mileage would be designated for OHV use and 28% would be closed. Of the OHV-closed routes, 19.6 miles would not be marked for reclamation and would continue to see authorized and administrative use, while the remaining 55.3 miles would be earmarked for reclamation.

2.5 Alternative C

Alternative C represents a balanced approach to OHV access opportunities and a variety of management actions which resolve issues and management concerns while accommodating the BLM's multiple use mandates and responsibilities. This alternative has OHV-open and OHV-closed designations that accommodate natural and cultural resource protection while designating more miles of routes as OHV-open than Alternative B. In this alternative, 83% of the evaluated network mileage would be designated OHV-open and 17% would be designated OHV-closed. Of the closed routes, 11.4 miles would be reserved for authorized use only and the remaining 34.2 miles would be earmarked for reclamation.

2.6 Alternative D

Alternative D is the action alternative that would designate the most miles of evaluated routes as OHV-open, thus representing the action alternative that would allow the most OHV-based access opportunities for a full range of purposes while still mitigating travel-related impacts. In this alternative, 90% of the evaluated network mileage would be designated for OHV use and 10% would be designated OHV-closed. Of the closed routes, 5.3 miles would be reserved for authorized use only, approximately 2 miles would not be earmarked for reclamation due to other passive non-motorized and non-mechanized uses, and the remaining 19 miles would be earmarked for reclamation.

2.7 Implementation Actions Common to All Action Alternatives

Although some forms of implementation-related management were specified in conjunction with designations during route evaluation, the following activities identified in the TMP Implementation Guide would occur with any of the action alternatives described above.

2.7.1 Signage

(Appendix L (TMP Implementation Guide), Section L.3.4 and Appendix L-G)

The travel route network would be signed to identify routes and inform the public of locations, special conditions, and limitations. Activities associated with signage include ground disturbance (post hole excavation, minor grading) and may involve minor vegetation removal. Sign installation will be done in previously disturbed areas as much as possible but may require installation in previously undisturbed areas outside the roadway and shoulder. Sign placement in areas that have not been previously disturbed is not analyzed in this EA and would be subject to additional NEPA compliance, if proposed. According to the Travel PA, Stipulation VI.C., the installation of signs is exempt from cultural resource survey and consultation requirements.

2.7.2 Route Maintenance

(Appendix L (TMP Implementation Guide), Section L.3.5)

Route maintenance is categorized into one of two categories: 1) routine maintenance that meets the purpose and need of the route and that does not extend beyond the edge of previous road prism disturbance; or 2) maintenance of a route that exceeds the standard of routine maintenance by either upgrading, widening, re-aligning, or otherwise creating new surface disturbance. Maintenance of designated routes would typically be conducted as described in the first category. Maintenance of designated routes that fall into the second category (i.e., more than routine) may be conducted only after additional site-specific analysis.

2.7.3 Decommissioning or Reclaiming Closed Routes

(Appendix L (TMP Implementation Guide), Section L.7)

Closed routes may be decommissioned and/or reclaimed through a variety of methods described below. BLM resource specialists will determine which form of decommissioning or reclamation is appropriate based on the attributes of each closed route:

- Closed routes may be allowed to revegetate naturally.
- Route reclamation may be done by mechanically ripping the route surface and revegetating through seeding or planting.
- In sandy areas and washes, tracks may be raked out so there is no evidence of vehicle use.
- Grading and recontouring may be used in some areas to restore natural slopes.
- As with maintenance activities, ground disturbance may extend into areas not previously disturbed.
- Signs or barriers (boulders, fences and gates, berms, vegetation) may be placed at the entrances to closed routes.
- Mulching may be used to obscure closed routes or protect disturbed surfaces.

2.7.4 Best Management Practices and Standard Operating Procedures
(Appendix L (TMP Implementation Guide), Section L.3)

Under all action alternatives, implementation activities are subject to Best Management Practices (BMPs) and Standard Operating Procedures (SOPs). A list of BMPs and SOPs can be found in the Implementation Guide (Appendix L), Section L.3.5.

2.7.5 Conservation Measures

Through consultation with the U.S. Fish and Wildlife Service (USFWS) the following Conservation Measures have been developed and will be adhered to regardless of the alternative selected for this TMP:

- If occupancy of ESA-listed species is confirmed, BLM will monitor all routes, including routes designated as closed, within occupied habitat to ensure compliance with the designation in the TMP. If monitoring indicates that disturbance or use is occurring outside the designated OHV open routes, BLM will implement appropriate corrective actions as identified in the 2008 RMP or developed in consultation with the USFWS.

Endangered Plants
- Plan and implement surveys for Jones cycladenia and Navajo sedge in all areas where potentially suitable habitat occurs within 300 feet of travel routes.
- Protect occupied habitat from recreational access and use.
- Jones cycladenia and Navajo sedge potential suitable habitat: If surface disturbance activities occur within 300 feet of potential suitable habitat for Jones cycladenia and Navajo sedge, the BLM will implement the applicant committed conservation measures identified in the Moab Master Leasing Plan (BLM 2016a, pages A-33 to A-40).

Endangered Fishes
- The Colorado River and its tributaries are home to three conservation agreement species: the bluehead sucker (*Catostomus discobolus*), roundtail chub (*Gila robusta*) and the flannelmouth sucker (*Catostomus latipinnis*). Conservation measures for the endangered Colorado River fishes are described in the Biological Opinion (attached as an appendix to the Decision Record for this project). As identified by USFWS, the same conservation

measures will be applied to minimize effects to the three conservation agreement species and other sensitive native aquatic and riparian species.

Mexican Spotted Owl

The following conservation measures, as identified by USFWS, will be applied to Mexican spotted owls and their suitable habitats:

1. Habitats: In un-surveyed areas or areas that have not had protocol surveys since 2015, suitable and potentially suitable habitats will be surveyed according to USFWS protocol in 2021 and 2022.
2. Recreation Disturbance:
    a. The following guidelines apply to Protected Activity Centers (PACs) during the breeding season, (1 Mar - 31 Aug). If non-breeding is inferred or confirmed that year per the accepted survey protocol, restrictions on noise disturbances can be relaxed depending on the nature and extent of the proposed disturbance (Swarthout and Steidl 2001, 2003). Guidelines for noise management related to recreation are provided below in the noise management recommendations.
        i. No construction of new facilities (e.g., trailheads, OHV trails) or expansion of existing facilities should take place in PACs during the breeding season. Any construction within PACs should be considered on a case-specific basis. Modifications to existing facilities pertaining to public health, safety, and routine maintenance are excepted (e.g., removal of dangerous trees in a campground; replacement of road culverts within campgrounds, etc.). However, when implementing such activities, those conducting the work should use all measures possible to avoid potential effects on owls (e.g., use least disruptive machinery; timing of the project to minimize disturbance).
        ii. Managers should, on a case-specific basis, assess the presence and intensity of currently allowed (permitted and non-permitted) recreational activities. The assessment should include distance, frequency, duration, and source of the disturbance. If recreation is determined to be a problem (e.g., increased OHV or hiking use), limit human activities during the breeding season in areas occupied by owls (timing may vary depending on local nest chronology). Disturbance here is defined as the presence of 1 to12 people; group sizes exceeding 12 people should not be allowed. In areas where nest and roost sites are not identified, human disturbance should be limited to ≤ 2 disturbances per hour (averaged over a 24 hour period) throughout the PAC. Where nest and roost sites are known, disturbance should be limited to ≤ 2 disturbances per hour (averaged over a 24 hour period) within line of sight of the nest/roost sites. In some cases, disturbances may be avoided by routing trails and recreational uses (e.g., OHV use) outside of PACs through signing in order to designate zones free from human disturbances during critical periods.
        iii. Seasonal closures of specifically designated recreational activities (e.g., OHV use, rock climbing, or biking) should be considered where disturbance to breeding owls seems likely.
        iv. Conduct education through signing, interpretation events, access permitting, or other information sources to inform the public of proper and

legal behaviors when encountering owls. For example, land managers in some areas are maintaining permanent, all-weather signs that inform the public that the area is home to a sensitive species; visitors should stay on the trail and be as quiet and unobtrusive as possible.

v. If owls are not detected in a PAC during the breeding season, restrictions on non-habitat-altering recreation can be relaxed depending on the nature and extent of the proposed disturbance.

3. Noise Disturbance:
    a. The following guideline applies to areas within PACs during the breeding season (1 Mar - 31 Aug). If non-breeding is inferred or confirmed that year per the accepted survey protocol, restrictions on noise disturbances can be relaxed depending on the nature and extent of the proposed disturbance.
        i. Managers should, on a case-specific basis, assess the potential for noise disturbance to nesting owls.
        ii. Breeding-season restrictions should be considered if noise levels are estimated to exceed 69 dBA (A-weighted noise level) (~80 dBO [owl-weighted noise level, Delaney et al. 1999a, b, Delaney and Grubb 2003, and Pater et al. 2009]) consistently (i.e., >twice/hour) or for an extended period of time (>1 hr) within 50 m (165 ft) of nesting sites (if known) or within entire PAC if nesting sites are not known.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

3.1 Overview

3.1.1 Introduction and General Setting

This chapter describes the current conditions and trends of the resource topics (i.e., those resources, resource uses, and social and economic values that comprise the natural and human environment) relevant to the key scoping issues presented in section 1.6.2. It also discloses the effects that implementation of any of the alternative route networks would have on relevant resource topics. The affected environment is the same for all alternatives. For an overview of the TMA setting, see section 1.4. The table in Appendix E lists all relevant resource topics for which issues are analyzed and provides rationales for resources not analyzed.

3.1.2 Effects

In this EA, effects analysis was conducted in the context of NEPA planning. The BLM's NEPA handbook defines "effect" as an "impact to the human environment brought about by an agent of change, or action. Effects analysis predicts the degree to which the environment will be affected by an action" (BLM 2008a). The handbook adds that effects "can be both beneficial and detrimental, and may be direct, indirect, or cumulative" (BLM 2008a). Beneficial effects are those that would enhance or restore the TMA environment. For example, a designated travel network can provide sustainable travel routes for a variety of desired experiences and reduce user inclination to travel off route and create new disturbance that would impact the area's natural and cultural resources.

The analysis that follows—unless otherwise noted—focuses on the key issues from scoping and concerns associated with potential effects on relevant TMA resources and resource uses. Analyzing these effects provides a useful comparison between each alternative travel network's capability for addressing the documented issues and concerns. The BLM's NEPA handbook states that the BLM "must consider and analyze three categories of effects for any BLM proposal and its alternatives: direct, indirect, and cumulative (40 CFR 1508.25(c))" (BLM 2008a), so throughout the analysis effects are discussed in the context of:

- Direct effects: Caused by alternative (same time and place).
- Indirect effects: Caused by alternative but later in time or further in distance but still reasonably foreseeable.
- Cumulative effects: The Council on Environmental Quality NEPA regulations (40 CFR 1508.7) defines a cumulative effect as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (GPO 2012).

Note: Cumulative effects analysis can be found at the end of the Key Issue sections in this Chapter.

3.1.3 General Assumptions

The following general assumptions were applied in analysis of each of the alternative travel route network's effects on the TMA environment:

- The construction of new routes is not in the scope of this project; however, the possibility of future addition of new routes is part of the operation and management of the overall travel network (see Appendix L (TMP Implementation Guide), section L.3.5). As part of ongoing travel management associated with this TMP, route designations may be added or changed in the future to respond to growing public demand for access, Title V ROW considerations, or concerns of damage to resources (e.g., an existing route that is needed to access a trailhead is causing unacceptable erosion). Any new or changed designations will be subject to site-specific environmental analysis in accordance with NEPA and Travel-related decisions in the 2008 RMP.
- Reducing network mileage within the TMA is not anticipated to decrease OHV use overall. Year-round OHV and non-motorized recreation use would continue to increase slightly in and around the TMA regardless of the designations made as a result of this travel planning effort.
- Concentration of use is not anticipated as an issue in this TMA. This conclusion was reached by the BLM IDT and applies for archaeology, wildlife, and other resources. Routes proposed for OHV-closed designations in the alternative networks are very lightly used, and therefore there would be no appreciable concentration of use on the remaining open routes. Of the estimated 53 vehicles per day that use the Canyon Rims area, at least 80% of them use the Needles Overlook Road only; another 15% use the graveled Anticline Overlook Road. The remaining 5% may utilize the arterial roads in the TMA such as Flat Iron and Looking Glass.
- Providing for a variety of OHV opportunities and experiences would help reduce user inclination to travel off designated routes.
- There are some linear features that are not designated for use under Alternative A that are currently receiving some unauthorized use. These linear features were not considered for designation. Enforcement of current designations as an issue is not part of this analysis.
- The proposed action alternative designations would supersede current travel route designations made in the 2008 RMP.
- A well-planned travel network would provide needed access for a variety of resource management activities, including mitigation, maintenance, and monitoring.
- Detrimental effects would be reduced by applying the best management practices (BMPs) and standard operating procedures (SOPs) listed in sections L.3 through L.7 of the TMP Implementation Guide (Appendix L) for operation and maintenance of the designated route network.
- OHV-open designations that include "with management" include some type of additional management (e.g., sign installation, monitoring, maintenance, etc.), but do not necessarily result in additional limitations on user type, season of use, or mode of travel.
- The implementation discussed in this document and detailed in the TMP Implementation Guide (Appendix L) is subject to available funding and resources. For the purposes of

this analysis, it is assumed that funding and resources would be available for implementation.

- Routes that are designated OHV-closed would not become part of the OHV travel network. They would be allowed to reclaim naturally or be actively reclaimed (e.g., through scarification and seeding), unless they are to remain available for administrative or authorized uses (e.g., access to range facilities or communication sites).
- For the purposes of this EA, it is assumed that implementation of a designated travel route network, including management, maintenance, and appropriate signage, would help minimize off-route OHV use and that most OHV users would act responsibly and legally on all designated routes.

3.1.4 General Effects Analysis Methodology

In this chapter, the following methodologies were applied to analyze alternative travel networks' potential effects on resource/use topics:

- GIS data and resource/use data collected during route evaluation form the basis for disclosing alternative route networks' potential effects on issues tied to particular resource/use topics. Data in tables show how many miles or numbers of routes of a particular designation under each alternative are likely to affect resources or uses associated with certain issues and impact analysis questions. These tables are used to disclose and compare effects of the action alternatives (B, C, and D) to the No Action Alternative (A). In many cases, the potential for effects is noted by comparing percentages or miles of routes of a designation with the total miles or numbers of routes associated with a particular resource. Travel routes or route miles are considered as potentially impacting a resource when they cross over it (e.g., species habitat polygons), are within a defined proximity distance of it (e.g., within ½ mile), or are otherwise noted as being associated in route evaluation data.
- To help inform overall context, in the alternative travel network tables in Chapter 3, total routes or miles associated with a particular resource (and the percentage of the total network those routes or miles represent) are presented where possible as values in the far-left columns of tables.
- The overall projected extent of effects of an alternative travel route network is summarized at the end of effects discussions for each resource topic section.
- Effects analysis is based on the best available data and resource staff knowledge of the TMA (based on observation and analysis of conditions and resources in the area and other similar areas).
- The past actions of assigning individual designations to routes in 2008 were considered as part of direct, indirect, and cumulative effects analysis.
- For some resource topics, more specific methodologies were used to determine effects. These methodologies are described in their respective resource topic sections.
- Cumulative effects analysis is considered at the end of each Key Issue section in this Chapter.

Mileages, percentages, acreages, and other quantities used in this analysis are approximate projections for comparison and analytical purposes only; they do not always reflect exact

measurements or precise calculations. Table mileages and percentages may not total equally in some instances due to rounding.

Although the following effects analyses are presented in the context of TMA-wide alternative travel route networks, each individual route within a given alternative network has been systematically and carefully evaluated as part of a route evaluation and designation process. As part of documenting compliance with the 43 CFR 8342.1 designation criteria, for each route designation, rationale statements were provided. These statements summarize how proposed designations would minimize potential resource impacts. They were reviewed and chosen by the BLM IDT, discussed as needed, and documented for each route alternative (see sample route report in Appendix H).

3.1.5 Additional Management

During route evaluation, additional measures were considered and documented where appropriate for routes with the designations of "Open with management." Measures include such actions as gate installation, parking area creation, and monitoring for cultural sites or recreational uses. Details on monitoring, design features, and mitigation may be found in sections L.4 through L.5 and Appendix L-C of the TMP Implementation Guide (Appendix L). Mitigation measures would help reduce the detrimental effects of the alternative travel networks on many of the TMA's natural and cultural resources, and monitoring would serve to track the effectiveness of mitigation measures.

3.2 Key Issue 1: Travel network effects on the TMA's natural and human environment

3.2.1 Cultural Resources

How would route designation alternatives affect impacts to cultural resources?

3.2.1.1 Affected Environment

BLM Manual 8100 – Foundations for Managing Cultural Resources, defines cultural resources as "definite location[s] of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence." The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit. They may be, but are not necessarily, eligible for the National Register of Historic Places (National Register). Cultural resource sites eligible for, or listed on, the National Register are referred to interchangeably as "historic properties" or "eligible sites" (BLM 2004a).

Cultural Resources are identified though cultural resource inventories and surveys, which are defined as "a representation of the cultural resource content of a geographical locale" by BLM Manual 8110 – Identifying and Evaluating Cultural Resources. The BLM cultural resource

inventory system is composed of three kinds of inventory: Class I Existing Information Inventory, Class II Probabilistic Field Survey, and Class III Intensive Field Survey (BLM 2004b). All three kinds of inventory were used to identify and evaluate archaeological sites in this TMA.

The TMA contains important cultural resources of prehistoric and historic value, which may take the form of sites (such as lithic debitage scatters), artifacts, buildings, structures, features, and natural landscapes. Human presence in the TMA spans the last 12,000 years or so and includes a number of distinctive cultures (Beck, et al. 2016): Paleo-Indian (12,500-8,000 years ago), Archaic (8,000-2,000 years ago), Formative (including Ancestral Puebloan and Fremont cultures; AD 1 to 1300), Protohistoric (AD 1400 to 1850), and Euro-American (1800s and 1900s).

3.2.1.2 Environmental Effects Analysis

Impacts that may occur to any cultural resource site from OHV use of routes designated as OHV-open are expected in most cases to be minor and ephemeral. For example, OHV travel in or immediately adjacent to a cultural resource site may cause a displacement of cultural artifacts or features at a site that would occur at the time of the activity or cause soil movement that may lead to soil erosion which could further displace cultural materials. Impacts to cultural resources from routes designated OHV-closed will be less than those designated as OHV-open.

Even though a route may be designated as OHV-open and may pass through a cultural resource site, impacts may not be major, thereby impacting an eligible site to the extent that it no longer has sufficient integrity to convey its significance for qualification for eligibility under the National Register.

Route designations and the subsequent use of these native- and gravel-surfaced routes may also result in the generation of fine dust particles in airborne clouds. The impact of dust particles settling on rock imagery panels has been the subject of three rigorous scientific studies conducted in Nine Mile Canyon, Utah (Spangler 2008; Silver 2008; Itasca Denver 2011). These studies evaluated whether the movement and settlement of dust on nearby rock imagery panels increased the weathering of rock imagery sites, which would constitute an adverse effect to eligible sites. The 2008 Preservar study notes that abrasion damage to rock imagery on sandstone surfaces only occurs under very specific conditions; in particular the dust must be comprised of a grit that is harder than the sandstone itself (Silver 2008).

While it is assumed that route users will behave responsibly and not engage in illegal activities, the BLM acknowledges that the designation of routes to areas with cultural resources may lead to impacts from the illegal collection of artifacts, looting, or vandalism. The level and nature of these potential impacts are influenced by the fragility of each cultural resource, their collectability, and their location. Location studies which focus on illegal collection or looting have focused on how the level of accessibility to cultural resources causes an increase or decrease in these types of impacts. Some studies such as those conducted in Range Creek, Utah (Spangler et al. 2006) reported a decrease in impacts as the distance away from a locked gate is increased. One study suggested that cultural resource sites that are visible to users on a traveled route are less likely to be damaged than sites that are less accessible (Simms 1986, cited by Spangler et al. 2006). However, another study found that in five years of monitoring, the

construction of a transmission line and access routes did not cause any increases in collection, looting, or vandalism of cultural resources (Summit Envirosolutions, Inc. 2011).

When designating routes as OHV-closed, traffic may be concentrated on nearby routes with the same destination. However, this assumes an equal distribution of use across a finite route network. Designating a rarely used route as OHV-closed may not appreciably increase traffic (concentrate use) on others. When evaluating potential impacts to cultural resources from route designations and resultant changes in route concentration (if any) the BLM considered numerous factors, including the use level of the route (primary, secondary, or tertiary), the durability of the route surface (i.e., sandy soil, natural gravels, or bedrock), the durability of the cultural resource, the extent of any impacts (minor, moderate, or major), and the reasons users select the route for travel.

Numbers of routes that lead to or are within ¼ mile of documented historic properties, 15 meters of not eligible cultural resource sites, and ¼ mile of unevaluated cultural resource sites were used as indicators of potential effects an alternative network could have on archaeological resources. Closures of redundant routes were assessed in accordance with Stipulation III.B.1.c. of the 2018 Travel PA for the potential to shift, concentrate, or expand use on open routes. Both motorized and non-motorized access may contribute to threats to archaeological resources, and some non-motorized users may be more likely to notice archaeological resources than motorized users because they may move slower and pay more attention to the ground. Below are definitions of the archaeological site terms used in Table 3.1 (see Glossary for full National Register Eligibility Definitions):

- Historic property: Cultural resource site (archaeological, historical or ethnographical (i.e., traditional cultural place or property)) that is listed or recommended eligible for listing on the National Register; may or may not be officially determined eligible for the National Register but contains information, distinctive design/construction, or association with significant events or persons, and integrity that qualifies it to be listed on the National Register.
- Not eligible site: Cultural resource site recommended not eligible for listing on the National Register because it lacks integrity, association with a significant event or person, distinctive design/construction or information that might qualify it for listing.
- Unevaluated site: Cultural resource site that has not yet been evaluated for its potential to be listed on the National Register.

Table 3.1 shows the number of routes in each alternative network that access various cultural sites.

Table 3.1: Number of Evaluated Routes with Direct (In, Leads To, or Crosses) or Indirect (Proximate) Access to Various Cultural Resources

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Historic Properties (19 routes; 6.4% of evaluated network)	OHV-Open	19	12	-7	16	-3	17	-2
	OHV-Closed	0	7	7	3	3	2	2
	OHV-Open	31	22	-9	25	-6	28	-3

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Not Eligible Sites (31 routes; 10.5% of evaluated network)	OHV-Closed	0	9	9	6	6	3	3
Unevaluated Sites (3 routes; 1% of evaluated network)	OHV-Open	3	2	-1	3	0	3	0
	OHV-Closed	0	1	1	0	0	0	0

None of the eligible and previously eligible sites would be impacted to the extent they no longer have sufficient integrity to convey their significance for qualification for eligibility under the National Register. Known and newly documented sites within a ¼ mile of all proposed routes were considered for impacts. BLM determined that it may be reasonably foreseeable that three sites may be adversely affected as defined in 36 CFR 800.5. As noted in 36 CFR 800.(a)(1) an adverse effect on a historic property does not necessarily lead to a significant impact. To address possible effects, the BLM developed a historic properties treatment plan (HPTP) that minimizes future effects to the three sites.

Alternative A (No Action)

Under Alternative A, approximately 6% of routes designated OHV-open are proximate to historic properties, 11% are proximate to not eligible sites, and a few are proximate to unevaluated sites. All of the routes proximate to these various sites are currently open year-round to OHV travel. These open routes provide OHV access that could result in direct damage to cultural resources from trampling, theft, and vandalism. This unrestricted access could also cause indirect impacts such as noxious and invasive species spread (e.g., cheatgrass) from travel-related disturbances, increasing the potential for damaging wildland fire. Erosion and exposure of sites from travel-related disturbances leaves sites more susceptible to loss and damage. Conversely, some open designations could provide access that is beneficial for interpretive or educational experiences. Impacts to cultural resources from ongoing OHV use (i.e., direct damage from trampling, theft, and vandalism; erosion and exposure of sites from travel-related disturbances that leaves sites more susceptible to loss and damage; access that is beneficial for interpretive or educational opportunities) would reflect a continuation of current management.

Alternative B

Compared to Alternative A, the proposed Alternative B travel network would have about 32% fewer routes designated OHV-open that are proximate to cultural sites, including 7 of the 19 routes designated OHV-open under Alternative A that are proximate to historical properties. These reductions in OHV-open designations would lessen the potential for OHV-related impacts of vandalism, theft, damage, soil erosion and exposure, invasive species and weed spread, and wildfire, among others, to cultural resources. As compared to Alternatives C and D, the proposed Alternative B travel network—with the lowest number of open OHV routes and highest number of designated closures of routes currently proximate to cultural sites—would accordingly have less potential for impacts to cultural resources. Moreover, with the fewest routes proposed for designation as OHV-open, the Alternative B travel network would have the greatest likelihood of reducing adverse effects to cultural resources as compared to the other alternatives.

Alternative C

The proposed Alternative C travel network would provide for a decrease in OHV-open routes proximate to cultural resources of about 17% compared to Alternative A, including closure of 3 routes proximate to historic properties and 6 routes proximate to not eligible sites. There would be no changes to the designations of the three routes that are currently proximate to unevaluated sites. Compared to Alternative B, the Alternative C network would result in 20% more OHV-open routes proximate to cultural sites. The Alternative C network is similar to the Alternative D network, with only 4 fewer routes designated for OHV use proximate to cultural sites; because of the similarity, the potential effects from Alternatives C and D on cultural resources would be comparable, with Alternative C having slightly fewer potential impacts. Overall, the Alternative C travel network would reduce the potential for adverse effects to cultural resources more than Alternatives A and D but less than Alternative B.

Alternative D

Compared to Alternative A, the proposed Alternative D travel network would have 2 fewer routes proximate to historic properties and 2 fewer routes proximate to not eligible sites that would be open to OHV use. As a result, the Alternative D network, though very similar to Alternative A, would have slightly fewer potential impacts to cultural resources. It would have slightly more potential impacts than the Alternative C network. Overall, the Alternative D travel network would reduce the potential for adverse effects to cultural resources more than Alternative A but less than Alternatives B and C.

3.2.2 Lands with Wilderness Characteristics

How would travel network route designations impact wilderness characteristics in inventoried Lands with Wilderness Characteristics (LWC) areas?

3.2.2.1 Affected Environment

The 2017 Settlement Agreement stipulates that "For purposes of minimizing damage to public lands with BLM-inventoried wilderness characteristics, the BLM will consider the potential damage to any constituent element of wilderness characteristics, including naturalness, outstanding opportunities for solitude, and outstanding opportunities for primitive and unconfined recreation, for each alternative route network." The TMA has 13 inventoried LWC units that were found to possess wilderness characteristics (size, naturalness, solitude and/or primitive recreation), and an area of at least 5,000 acres (or adjacent to other lands identified as having wilderness characteristics)). None of the LWC units within the TMA are managed to maintain wilderness characteristics and are instead managed for multiple uses. The TMA contains 40,513.7 BLM acres (containing 36.3 miles of evaluated routes) inventoried as having wilderness characteristics. Current LWC unit boundaries are based on LWC inventory completed for the 2008 RMP and on several inventories preceding the 2016 Moab Master Leasing Plan. The BLM's inventory of the LWC units in the Canyon Rims TMA found these units to possess wilderness characteristics even though the roads were designated and in place at the time of the wilderness inventory. In other words, the presence of the roads did not disqualify these lands as possessing wilderness characteristics.

3.2.2.2 Environmental Effects Analysis

Potential effects that OHV use may have on LWCs include degradation or loss of naturalness, solitude, or primitive recreation, all key components of wilderness character. Designations allowing OHV use in LWC units may contribute to degradation or loss of these key components as a result of travel-related impacts such as vehicle noise, wheel tracks, dispersed camp sites, resource damage on or along travel routes, and expanded human presence. OHV access and the presence of OHVs could also lead to a loss of solitude and opportunity to experience primitive recreation. Resource damage can occur near travel routes from roadside camping disturbances, creation of social trails, etc., resulting in degradation of natural character. Routes designated as closed to OHV travel and earmarked for reclamation could help reduce the overall network footprint within or near LWC areas. Also, travel networks that provide for a variety of OHV opportunities could help decrease OHV user inclination to travel off-route and degrade natural character. Continuation of OHV use as limited to designated routes would confine soil and vegetation disturbance caused by motor vehicles to those routes, and result in no additional change to the natural character of the LWC lands. TMP implementation actions such as placement of barriers for closed routes, signing, and route maintenance would result in localized disturbances that could temporarily contribute to degradation of naturalness. Routes designated for OHV use may be subject to occasional ground-disturbing maintenance actions and directional signing.

During the LWC inventory phase, routes that were found to meet the definition of a Wilderness Inventory Road, or that otherwise constituted a substantial impact to naturalness, were used as LWC unit boundaries. In some cases, these routes are bounded by areas having LWC on both sides, with the route itself excluded from the unit. Some are through-routes that delineate an entire unit boundary. Others are dead-end routes, stopping short of dissecting the unit. These routes that meet the Wilderness Inventory Road definition, that are otherwise excluded due to their impacts to naturalness, and that dead-end are referred to as “cherry-stems” (see BLM Manual 6310, Glossary, pgs. 10-11). Potential impacts to LWCs from OHV use of cherry-stemmed routes may be considered in two forms: 1) impacts that may occur within the LWC unit as a result of access from a cherry-stemmed route, and 2) impacts to LWCs that may occur on the route itself. Use of cherry-stemmed routes does not substantially contribute to impacts to LWCs. However, some evaluated routes are in LWC units and are not cherry-stemmed.

Table 3.2 below was used to inform effects analysis. It shows network miles that are *in* LWCs (that is, *not* cherry-stems or boundaries). Such miles were used as indicators of the networks’ potential impacts to LWCs.

Table 3.2: Miles of Evaluated Routes in LWC

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Lands with Wilderness Characteristics (36.3 miles; 13% of evaluated network)	OHV-Open	36.3	0.4	-35.9	21.0	-15.3	29.2	-7.1
	OHV-Closed	0.0	35.9	35.9	15.3	15.3	7.1	7.1

Alternative A (No Action)

Of the current designated route network, about 13% of the mileage designated OHV-open is located in areas inventoried as having wilderness characteristics. Many of the routes making up this mileage are completely within LWC units, and some cross into them from other areas. All the mileage in the TMA's LWCs is currently open to OHV use, which may result in dust, noise, and user conflicts (i.e., OHV vs. primitive recreation users), potentially diminishing the LWCs' characteristics of naturalness and potential for solitude and primitive recreation. Impacts to LWC wilderness characteristics of naturalness and opportunities for solitude and primitive and unconfined recreation would reflect a continuation of current management.

Alternative B

Alternative B proposes to designate as OHV-closed 35.9 miles of the routes (all but a 0.4-mile route that leads to a SITLA parcel) within LWCs, resulting in a 99% decrease in miles open to OHV use within LWCs compared to Alternative A. Approximately 3 miles that would be designated OHV-closed would allow authorized use, and the rest would be earmarked for reclamation. Therefore, Alternative B's OHV route closures in LWC areas would reduce the impacts of OHV travel on the fundamental components of wilderness characteristics. Alternative B has the highest likelihood of any alternative for reducing route-related adverse effects on BLM-inventoried wilderness characteristics within the TMA.

Alternative C

Alternative C proposes to designate as OHV-open 21.0 miles within LWCs, a 42% decrease compared to Alternative A. Of the 15.3 miles that would be closed to OHV use, 2.9 miles would allow authorized use only and the rest would be earmarked for reclamation. The decrease in OHV use within LWCs would reduce impacts to wilderness characteristics such as non-primitive use, noise, dust, and user conflicts, though not to the extent of Alternative B.

Alternative D

Compared to Alternative A, Alternative D proposes to decrease route miles designated for OHV use within LWCs by 19% (7.1 mi). Of the 7.1 miles of OHV closures, 1.6 miles would be reserved for authorized use, another 0.3 miles would be targeted for non-motorized use, and the rest would be earmarked for reclamation. The decrease in miles designated for OHV use within LWCs, though less than Alternatives B and C, would still reduce impacts to wilderness characteristics compared to Alternative A.

3.2.3 Soils, Native Vegetation, and Weeds and Invasive Species

How would travel network route designations impact native vegetation communities, introduction and spread of invasive weeds, and soil stability?

The TMA's native vegetation types exist in a variety of soil types and depths as discussed below in Affected Environment for each vegetation type. Soil disturbance and erosion can create an environment that is conducive to the introduction and spread of noxious weeds and invasive species. Because of this interrelationship, these three resource topics are presented together in this section.

3.2.3.1 Affected Environment

Soil types in the Moab FO area are variable, reflecting the interactions between topography, elevation, parent material, and time. Topography ranges from nearly level valley bottoms to vertical cliffs. The area has a variety of soil types, including highly saline and erodible soils. Biological soil crusts (also called cryptogamic or cryptobiotic soils) found throughout the Moab FO area are composed primarily of cyanolichens and cyanobacteria. These crusts are important soil stabilizers or "living mulches" that retain soil moisture and discourage the growth of invasive weeds (BLM 2008b). Repeated disturbance or trampling of biological crusts can permanently destroy the living filaments of the organisms, preventing the recovery of the crusts. Blowing dust from disturbed soils can cover nearby crusts, depriving them of needed sunlight, ultimately leading to the death of the living organisms that comprise the crusts. Without these crusts, soil stability, fertility, and moisture retention capacity can be lost (BLM 2015); see 3.2.6 Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality.

The Colorado Plateau, with its variety of elevations and precipitation zones, provides a substantial amount of biodiversity. The vegetation cover types of the area are predominantly pinyon-juniper, sagebrush, blackbrush, salt desert shrub, perennial grassland, oak/mountain shrub, and conifer. Hatch Wash and Kane Creek and some of their tributaries also have vegetation associated with riparian areas, such as cottonwood, willow, riparian grasses, sedges, and rushes—as well as invasive vegetation such as tamarisk (saltcedar) and Russian olive. Native vegetation in the Moab FO area provides forage for livestock grazing as well as habitat for wildlife, and serves a major role in the hydrologic cycle as an interface between the area's soils and the atmosphere. Some native vegetation communities such as blackbrush show a poor history of revegetation, and some communities such as sagebrush have experienced high percentages of conversion to cheatgrass. Analysis of alternative network designations on native vegetation below will focus on the four predominant vegetation types within the TMA, which combined cover 96% of BLM lands within the TMA:

- **Pinyon-Juniper (47,236 acres on BLM lands in the TMA):** Generally occurs at elevations of 4,700-8,600 feet on landscapes of varied topography. Pinyon—which is a valuable resource for firewood harvest and wildlife habitat—tends to dominate at higher elevations, juniper at lower elevations. This vegetation community is typically associated with sagebrush, Mormon tea, and blackbrush. (BLM 2013)
- **Sagebrush (23,003 acres on BLM lands in the TMA):** Generally occurs at elevations of 5.500-7,300 feet in areas of moderately deep soils. This vegetation community is dominated by big sagebrush and may also include horsebrush, rabbitbrush, spiny hopsage, saltbush, Mormon tea, and winterfat. It is associated with grasses such as sand dropseed, western wheatgrass, Indian ricegrass, and galleta. Significant percentages of this vegetation type have been converted to cheatgrass and Russian thistle because of wildland fire, drought, and improper grazing management. (BLM 3013)
- **Blackbrush (9,853 acres on BLM lands in the TMA):** Generally occurs at elevations of 2,500-8,000 feet in well-drained soils. It occurs in pure stands and as part of several other vegetation types. Blackbrush communities are generally bounded by big sagebrush and juniper in this area, and they are associated with sagebrush, shadscale, winterfat, greasewood, and rabbitbrush. This vegetation type has a poor history of revegetation. (BLM 2013, USFS 2001)

- **Salt Desert Shrub (7,131 acres on BLM lands in the TMA):** Generally occurs at elevations of 4,000-5,400 feet in saline or alkaline soils with low moisture that are susceptible to wind and water erosion from surface disturbances. Salt desert shrub communities are associated with shrubs such as shadscale, greasewood, blackbrush, four-wing saltbush, Nuttall's saltbush, mat saltbush, Mormon tea, spiny hopsage, horsebrush, and rabbitbrush. Associated forbs include snakeweed and buckwheat. And associated grasses include wildrye, galleta, Indian ricegrass, and sand dropseed. (BLM 2013)

The presence of noxious weeds and invasive species can be used as indicators of healthy ecosystems as their presence is often related to disturbances and loss of native species in those systems. Noxious weed species that are found in many areas of the Moab FO include Russian knapweed, halogeton, cheatgrass, tamarisk, and Russian olive. Encroachment of noxious and invasive species presents a problem both along river corridors as well in large areas of uplands and rangelands. Surface-disturbing activities have the potential to introduce or spread invasive species and noxious weeds. Travel routes can serve as corridors where invasive species and noxious weeds can be introduced or spread throughout connecting routes. For more information on exotic and introduced plants as well as invasive and noxious weeds in the Moab FO's jurisdiction, see pages 3-173 through 3-174 of BLM 2008b. Noxious weeds are also problematic in riparian areas. For more on travel-related effects for riparian resources, see 3.2.6 Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality.

3.2.3.2 Environmental Effects Analysis

Travel network alternatives that designate more miles as OHV-closed would provide higher levels of protection to soils from surface disturbances and, indirectly, to native vegetation and riparian areas. Because virtually every route in the TMA crosses through areas of cryptobiotic soils, travel network alternatives with fewer miles open to OHV use would better protect these important soil crusts. Additionally, travel routes can serve as a conduit for saline-laden sediment transport (indirect) into intermittent or perennial drainages and riparian areas during runoff events. Surface disturbances from vehicle travel can also remove soil-stabilizing agents, such as vegetative cover, soil crusts, and woody debris. Loss of one or more of these agents increases potential erosion and sediment transport into water bodies and riparian areas.

Travel route-related direct effects on vegetation include trampling or crushing of soils and vegetation as well as vegetation loss from access-related human activity. Effects also include dusting, which can lead to plant mortality. Travel network alternatives that close more miles to OHV travel when those miles cross through vegetated areas would provide higher levels of protection to vegetation from OHVs and access-related activities. Route networks and their designations can contribute to the introduction and spread of invasive plants and noxious weeds, displacing native species and disrupting proper ecosystem functions because various travel-related vectors (e.g., recreation, commercial, administrative, and fire suppression vehicles) can carry invasive and noxious weed seeds on their undercarriages and tires. However, certain types of travel route designations (e.g., closed or limited to authorized use), by limiting or eliminating vehicle travel, can also limit or reduce the spread of invasive and noxious plants, thereby benefitting native vegetation species. Travel routes also provide access for invasive species and weed monitoring and treatment activities.

TMP implementation activities include installing new signs, road maintenance (grading, installing water control structures, surfacing, etc.), route decommissioning or reclamation (including ripping or scarifying road surfaces and planting seed, and grading/recontouring), installing fencing or barriers, or mulching on closed routes. If implementation is proposed that requires new surface disturbance, additional site-specific NEPA would be required before the activity could occur.

Table 3.3: Miles of Evaluated Routes in Erodible Soils

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Soils with Moderate or High Erosion Potential (210.7 miles; 77% of evaluated network)	OHV-Open	210.7	152.3	-58.4	177.7	-33.0	192.5	-18.2
	OHV-Closed	0.0	58.4	58.4	33.0	33.0	18.2	18.2

Table 3.4: Miles of Evaluated Routes in Various Native Vegetation Classes

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Pinyon-Juniper Woodlands (97.4 miles; 36% of evaluated network)	OHV-Open	97.4	68.4	-29.0	77.8	-19.6	88.7	-8.7
	OHV-Closed	0.0	29.0	29.0	19.6	19.6	8.7	8.7
Sagebrush (85.2 miles; 31% of evaluated network)	OHV-Open	85.2	63.8	-21.4	72.7	-12.6	77.5	-7.8
	OHV-Closed	0.0	21.4	21.4	12.6	12.6	7.8	7.8
Blackbrush (49.7 miles; 18% of evaluated network)	OHV-Open	49.7	35.4	-14.4	42.1	-7.7	44.2	-5.5
	OHV-Closed	0.0	14.4	14.4	7.7	7.7	5.5	5.5
Salt Desert Shrub (21.8 miles; 8% of evaluated network)	OHV-Open	21.8	16.3	-5.5	18.9	-2.9	20.1	-1.7
	OHV-Closed	0.0	5.5	5.5	2.9	2.9	1.7	1.7

Table 3.5: Miles of Evaluated Routes in Existing Weed Infestation Areas

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Current Weed Infestations (59.1 miles; 22% of evaluated network)	OHV-Open	59.1	44.7	-14.4	50.8	-8.3	53.6	-5.5
	OHV-Closed	0.0	14.4	14.4	8.3	8.3	5.5	5.5

Alternative A (No Action)

Of the current designated travel network, 77% of the miles designated OHV-open are located in erosive soils. Some of the currently open routes are located in riparian areas or in the vicinity of perennial streams, and nearly all routes in riparian areas are located in erosive soils, increasing the potential for sediment transport and salinization in the Colorado River drainage. Additionally, biologic soil crusts are found throughout the TMA, and Alternative A's open

network leaves these soil crusts susceptible to access-related human impacts (i.e., damage or crushing from camping, exploring, and un-authorized off-road travel).

With all evaluated routes designated as OHV-open, Alternative A would have the potential for ongoing OHV use-related impacts such as crushing or trampling (driving on partially vegetated roadways, roadside parking, camping, exploring, etc.) as well as general loss of plants and loss of health and vigor from travel-related dusting and disturbance along routes. The Alternative A network also has 59.1 miles of routes going through existing weed infestation areas designated for OHV use, so this alternative does little to minimize the spread of invasive plants and noxious weeds.

Impacts to soils and native vegetation from ongoing OHV use (i.e., increased soil compaction and susceptibility to erosion, surface rutting from OHV use during wet periods, increased sedimentation into waterways, increased dusting of vegetation, spread of invasive plants and noxious weeds, etc.) would reflect continuation of current management.

Alternative B

The Alternative B travel network proposes OHV-open designations for 72% of the route miles located in erosive soils, a decrease of 58.4 miles as compared to Alternative A. Alternative B also proposes to designate as OHV-open the fewest overall miles of any of the alternative networks (see section 2.2), and is thereby the least likely to impact the TMA's biologic soil crusts from OHV access-related damage.

The Alternative B network would decrease the route miles designated for OHV use in various native vegetation classes between 25% (sagebrush) and 30% (pinyon-juniper). This network would also decrease the route miles designated for OHV use going through existing weed infestation areas by 24% (14.4 mi). Combined, because of this Alternative's decreases in OHV-open designations, it would have the least likelihood for OHV use-related impacts discussed above such as crushing, disturbance, dusting, and invasive weed spread.

Compared to Alternative A and the other action alternatives, Alternative B proposes to designate the fewest route miles as OHV-open in erosive soils, in each native vegetation class, and in areas of weed infestation. Therefore, Alternative B is least likely to impact soils and vegetation from adverse travel-related direct effects (e.g., soil disturbance and compaction, trampling, and dusting) and from indirect effects (e.g., increased salinization in riparian areas and spread of invasive plants and noxious weeds). Overall, Alternative B has the highest likelihood among the alternatives for reducing adverse impacts to native vegetation and soils.

Alternative C

Alternative C proposes to designate 84% of the route miles in erosive soils for OHV use, a decrease of 33.0 miles from Alternative A; this decrease is approximately half of that in Alternative B. Fewer miles overall would be designated OHV-open in Alternative C than in Alternative A, decreasing the potential for adverse impacts to biologic soil crusts.

Compared to Alternative A, Alternative C proposes to decrease the route miles designated for OHV use in various native vegetation classes between 13% (salt desert shrub) and 20% (pinyon-juniper). This network would also decrease the route miles designated for OHV use going through existing weed infestation areas by 14% (8.3 mi). Combined, these decreases in OHV-

open designations would help minimize use-related impacts of crushing, disturbance, dusting, and invasive weed spread, though not to the extent of Alternative B.

Alternative D

Alternative D proposes to designate 91% of the route miles in erosive soils for OHV use, a decrease of 18.2 miles from Alternative A. While this decrease would help protect soils from the adverse route- and access-related impacts of disturbance, compaction, and crushing of biologic crusts, the protections afforded by this network alternative would not be as substantial as those under Alternatives B and C.

Compared to Alternative A, Alternative D would decrease the route miles designated for OHV use in various native vegetation classes between 8% (salt desert shrub) and 11% (blackbrush). As in Alternatives B and C, this would reduce the potential use-related impacts of crushing, disturbance, and dusting compared to Alternative A, though not nearly to the extent of these other action alternatives. This alternative would also decrease the route miles designated for OHV use going through existing weed infestation areas by 9% (5.5 mi), minimally reducing the area's susceptibility to invasive weed spread.

3.2.4 Special Designation Areas

How would travel network route designations impact the important and relevant values of the Highway 279/Shafer Basin/Long Canyon ACEC and the Wild and Scenic River quality of the Colorado River segment that flows through the TMA?

3.2.4.1 Affected Environment

ACEC designations highlight areas where special management attention is needed to protect important and relevant values such as historical, cultural, and scenic values, or fish and wildlife or other natural resources. The Federal Land Policy and Management Act directs the BLM to give priority to the identification and potential designation of ACECs through the land-use planning process. The types of activities allowed within an ACEC depend on the resource and natural value the area is designated to protect (https://www.blm.gov/programs/planning-and-nepa/planning-101/special-planning-designations/acec). The Highway 279/Shafer Basin/Long Canyon ACEC (12,573 acres; contains 12.1 travel network miles) is the only ACEC in the TMA and is managed for its significant scenic, wildlife, plant, and cultural resources. The ACEC is a corridor along the scenic byway of Highway 279 providing extraordinary scenery and ancient rock imagery. Shafer Basin, which is managed as Visual Resource Management (VRM) Class I, provides the viewshed from Dead Horse Point State Park. The area also has significant value in that it contains Jane's globemallow, a BLM sensitive plant, and desert bighorn sheep habitat. This ACEC's particular habitat "enabled the dwindling desert bighorn herd to survive" (BLM 2013), and the Shafer Basin population has provided stock for restoring desert bighorns in other environments. For more information on this ACEC, see pages 3-130 through 3-131 and 3-136 through 3-137 of the 2008 RMP.

The Wild and Scenic Rivers Act of 1968 established legislation for a National Wild and Scenic Rivers System to protect and preserve designated rivers in their free-flowing condition and also to protect and preserve their immediate environments. A 10.6-mile section of the Colorado River (containing 3.1 travel network miles within its WSR corridor) that flows through the TMA was

found suitable in the 2008 RMP as a Wild and Scenic River (WSR) for its scenic qualities, which include rich, contrasting colors and textures with outstanding geologic and visual features. This section of river and its immediate environment has a No Surface Occupancy (NSO) stipulation. The outstandingly remarkable values (ORVs) of this Colorado River section include scenery, recreation, wildlife, fish, cultural resources, and ecology. For more information on WSRs, see pages 34-36 of the 2008 RMP.

3.2.4.2 Environmental Effects Analysis

The types of OHV-related effects that could diminish any of the ACEC relevant and important values or WSR outstandingly remarkable values include:

- Degradation of the ACEC's or WSR's scenic quality.
- Degradation of the area's ancient rock imagery.
- A decline in plant or animal species number and population viability, resulting in the need to list species under the ESA or the inability to delist species, based on recovery.
- Habitat loss or adverse modification that contributes to the need to list species under the ESA or the inability to delist species, based on recovery.
- Reduction in high-quality recreational experiences. Note: All alternative networks would have no impact to recreational access for river-running activities on the Colorado River.

The 2008 RMP lists potential threats to the ACEC, including oil and gas development, increased motorized recreation use, utility corridor development, and mineral development. Regarding scenic values in the ACEC, travel route use can increase damage and disruption to the natural appearance of landscapes by providing opportunities for route proliferation, illegal off-road landscape damage, littering, and other harmful activities. Routes also impact visual resources by creating contrasting lines where they do not follow natural landscape contours. Changes in color and form from road cut backslopes and fill slopes create visible impacts. Potential effects on the vegetation communities, crucial wildlife habitat, and cultural values of the ACEC include trampling of vegetation from off-route motorized or non-motorized use; soil disturbance; route proliferation; and exposure, loss, or damage of cultural resources. Other effects include soil erosion, establishment and spread of noxious weeds from soil disturbance and native vegetation loss, and enhanced risk of damaging wildfire. For mileage/designation breakdowns of routes in the ACEC, see Table 3.6.

Wild and Scenic River qualities can be negatively impacted where travel routes serve as a conduit for sediment transport (indirect) into intermittent or perennial drainages and riparian areas during runoff events. Motorized travel in areas of highly erosive soils or in sensitive areas, such as stream channels and riparian habitats, increases the potential for surface runoff (i.e., soil displacement) and water quality impacts. In addition, travel routes and their use may result in negative impacts to the outstanding scenic qualities of WSR segments. Route use may increase damage and disruption to the natural appearance of landscapes by providing opportunities for route proliferation, illegal off-road landscape damage, littering, and other harmful activities. Establishment of a designated comprehensive travel route network is expected to minimize route proliferation and decrease future degradation of visual resources. Travel routes can provide beneficial access for interpretive and educational opportunities for cultural resources, though their use can also lead to vandalism and other detrimental effects to cultural values along the WSR. For mileage/designation breakdowns of routes in the WSR corridor, see Table 3.7.

Table 3.6: Miles of Evaluated Routes in Areas of Critical Environmental Concern

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Areas of Critical Environmental Concern (12.1 miles; 4% of evaluated network)	OHV-Open	12.1	10.6	-1.5	10.8	-1.3	11.6	-0.4
	OHV-Closed	0.0	1.5	1.5	1.3	1.3	0.4	0.4

Table 3.7: Miles of Evaluated Routes in Wild and Scenic River Corridor

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Wild and Scenic River Corridor (3.1 miles; 1% of evaluated network)	OHV-Open	3.1	2.9	-0.2	3.1	0.0	3.1	0.0
	OHV-Closed	0.0	0.2	0.2	0.0	0.0	0.0	0.0

Alternative A (No Action)

Within the Highway 279/Shafer Basin/Long Canyon ACEC, the current travel network comprises 12.1 miles of routes, all of which are open to OHV travel. These open travel designations leave the ACEC susceptible to some travel-related effects which could potentially impact the ACEC's extraordinary scenic qualities, increase the potential for damage to its ancient rock art, and damage or destroy plant and wildlife habitat; however, it is important to note that many of the routes previously causing adverse impacts in the ACEC were designated as closed during earlier travel planning efforts for the 2008 RMP.

The WSR segment adjoining the TMA contains 3.1 miles of designated travel routes. Because all of these route miles are open to public OHV use, the WSR's outstandingly remarkable values (scenery, recreation, wildlife, fish, cultural resources, and ecology) are susceptible to travel route-related adverse effects of route proliferation, sediment transport and water quality degradation, illegal off-road landscape damage and damage to cultural resources, littering, etc.

Alternatives B, C, and D

Compared to Alternative A, all the action alternatives provide for little change to travel route designations in either the ACEC or WSR segment. In the ACEC, Alternative B proposes OHV-closed designations for 1.5 miles of routes, Alternative C proposed OHV-closed designations for 1.3 miles, and Alternative D proposes OHV-closed designations for 0.4 miles. The only difference between network alternatives in the WSR corridor would occur under Alternative B, which would close 0.2 miles to OHV use. Under all alternatives, effects from any of these action alternative networks and travel-related uses would be very similar to those discussed above under Alternative A. As in Alternative A, because the route mileage in the special designation areas is so low, any of these travel networks would have correspondingly minor potential for adverse impacts to the ACEC and WSR segment.

3.2.5 Visual Resource Management

How would travel network route designations impact visual resources within the TMA?

3.2.5.1 Affected Environment

The visual resources of the Canyon Rims TMA include features such as canyons, cliffs, mesas, and plains. The area has numerous outstanding scenic overlooks which afford views of the Indian Creek corridor and the Sixshooter Peaks, Canyonlands National Park, and Dead Horse Point State Park. Each of its four major overlooks gives the visitor a different view of the surrounding area. The interplay of visuals between Canyonlands National Park and the Canyon Rims TMA is particularly important: Canyonlands National Park was set aside in large part because of its visual resources and, as the Canyon Rims Recreation Area Management Plan points out, "It is important to remember that just as Canyonlands National Park is visible from Canyon Rims, the cliffs of Canyon Rims are equally visible from Canyonlands National Park." Also, visitors to the TMA are afforded views into numerous canyon systems (Harts Draw, Hatch Wash, and Kane Springs Canyon) "which truncate the landscape" (BLM 2002). Both the Needles Overlook Road and Anticline Overlook Road were designated as Utah Scenic Backways because of the area's beauty.

Visual Resource Management (VRM) is a process the BLM uses to identify and manage scenic values to reduce visual impacts of development or other surface-disturbing activities on public lands. There are four VRM classes: I, II, III, and IV with the lower number representing higher visual quality. All TMA BLM lands have been assigned to a VRM class, with 8,285 acres in Class I, 45,536 acres in Class II, and 37,133 acres in Class III. The class objectives are:

- VRM Class I – Preserve the existing character of the landscape. This class provides for the natural ecological changes; however, it does not preclude very limited management activity. The level of change of the characteristic landscape should be very low and must not attract attention.
- VRM Class II – Retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- VRM Class III – Partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
- VRM Class IV – Provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Of the evaluated routes, approximately 12 miles of travel routes are in Class I, 147 miles are in Class II, 113 miles are in Class III, and no miles are in Class IV.

3.2.5.2 Environmental Effects Analysis

Existing travel routes and OHV use can contribute to damage and disruption to the natural appearance of landscapes by providing opportunities for route proliferation (i.e., user-created routes extending off existing routes). Other travel-related surface disturbances such as roadside camping can lead to expansion of invasive species and noxious weeds and subsequently higher potential for disruptive wildfire events. OHV use on dirt roads can increase dust levels in the air (Kavouras et al. 2009), the extent of which depends on traffic characteristics and road quality (Etyemezian et al. 2003). In turn, the presence of dust particles in the air can reduce viewsheds (Duniway et al. 2019). Routes also impact visual resources by creating contrasting lines where they do not follow natural landscape contours. User-created routes typically do not follow ground contours and can extend up slopes, leading to rilling, erosion, and contrasting lines. Changes in color and form from road cuts and fills create visible impacts. However, the formal establishment of a route network that includes operation and management components (such as those provided in the action alternatives) can minimize route proliferation and future degradation of visual resources. Under all action alternatives, the application of specified operation and management tools provided in the TMP Implementation Guide (Appendix L)—such as signs, route markers, and human-made barriers—would help reduce or prevent impacts to the visual elements of line, form, and color.

Regardless of the final route designation decision for each travel route, it is assumed there will be follow-up action on the ground. For permanently closed routes, it can be assumed that actions would include the placement of closure signs, reclamation, or installation of barricades. For routes designated for OHV use, maintenance actions may include the use of heavy equipment for grading and drainage maintenance or hand tools for directional signing. The effects of these actions on visual resources are expected to be minor and short-term but are included in this analysis. Overall, the route designations will result in some routes being closed, thereby eventually reducing the overall footprint of the route network. More site-specific analysis of maintenance or management actions may be needed if such actions could affect high-quality visual landscapes.

See Table 3.8 for a breakdown of evaluated route miles/designations in VRM classes. The visual resource analysis below is based on this table.

Table 3.8: Miles of Evaluated Routes in VRM classes

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
VRM Class I (12 miles; 4% of evaluated network)	OHV-Open	12.0	10.6	-1.5	10.8	-1.3	11.6	-0.4
	OHV-Closed	0.0	1.5	1.5	1.3	1.3	0.4	0.4
VRM Class II (147.4 miles; 54% of evaluated network)	OHV-Open	147.4	103.5	-43.9	121.1	-26.3	133.5	-13.9
	OHV-Closed	0.0	43.9	43.9	26.3	26.3	13.9	13.9
VRM Class III (113.1 miles; 41% of evaluated network)	OHV-Open	113.1	83.5	-29.6	94.7	-18.4	101.0	-12.1
	OHV-Closed	0.0	29.6	29.6	18.4	18.4	12.1	12.1

Alternative A (No Action)

Approximately 4% of the current designated route network is located in VRM Class I areas, and another 54% is in Class II. The remaining miles are in Class III. All route miles in this alternative are currently open to OHV use. Impacts to the TMA's visual resources (i.e., degradation of visual quality, disruption of natural appearance, etc.) would reflect a continuation of current management.

Alternative B

The Alternative B route network proposes a relatively small decrease (12%, 1.5 mi) in OHV-open route miles in VRM Class I and a moderate decrease (30%, 43.9 mi) in Class II compared to Alternative A. All 1.5 OHV-closed miles in Class I and 31.9 of the 43.9 OHV-closed miles in Class II would be earmarked for reclamation. The 12 miles in Class II lands that would remain available for authorized users would leave the visual resources at some risk of disruption in these locations; however, closing these miles to public OHV use would reduce the probability for route proliferation and OHV-related degradation. Overall, Alternative B would have the most likelihood among alternatives for reducing adverse effects on visual resources.

Alternative C

Compared to Alternative A, Alternative C proposes a reduction of 11% (1.3 mi) in miles designated for OHV use in VRM Class I and a reduction of 18% (26.3 mi) in Class II. All of the route miles closed to OHV use in Class I and 19.2 of the 26.3 miles closed to OHV use in Class II would be earmarked for reclamation.

Alternative D

The Alternative D route network proposes OHV-open designations for all but 0.4 miles in VRM Class I lands. It also proposes OHV-open designations for 91% of the miles in Class II lands. This alternative closes about one-third as many miles in Class I and II lands as Alternative B and about half as many as Alternative C. Consequently, Alternative D would offer fewer protections for visual resources compared to Alternatives B and C.

3.2.6 Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality

How would travel network route designations impact water resources within the TMA?

3.2.6.1 Affected Environment

Water resources—particularly important in this arid region—are managed to ensure that water quality standards are not diminished as a result of BLM actions such as travel route designations. The surface waters of the TMA consist of 10.6 miles of the Colorado River as well as numerous perennial and intermittent streams. The area includes Hatch Wash and Kane Creek, two large streams with perennial and intermittent sections, and also includes smaller streams occurring in Dripping Spring, Trout Water, and Trough Springs Canyons, tributaries to Kane Creek. Windwhistle Campground has a well and pump that supply the campground with drinking water. Numerous stock ponds in the area provide water to cattle and wildlife.

Riparian areas are a form of wetland transition between permanently saturated wetlands and upland areas. In the arid Southwest, the riparian ecosystems depend on water availability, defined by amount, timing, duration, and source, and characterized as perennial (yearlong), intermittent (seasonal), or ephemeral (storm). They are defined as areas of land directly influenced by permanent (surface or subsurface) water. They have visible vegetation or physical characteristics reflective of permanent water influence. Lakeshores and streambanks with perennial water flow are typical riparian areas. They include wetlands and those portions of floodplains and valley bottoms that support riparian vegetation (Meehan 1991). Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil (BLM 1991). However, it is important to note that an ephemeral stream is one that flows only in direct response to precipitation and whose channel is at all times above the water table. Thus, intermittent or ephemeral streams which do not currently exhibit riparian characteristics may in fact be connected to a water table and could potentially develop riparian attributes with management changes.

Riparian areas comprise less than one percent of the approximately 22 million acres of public lands administered by the BLM in Utah. However, these small but unique areas are among the most important, productive, and diverse ecosystems in the state. Riparian areas provide many benefits within the TMA, including filtering and purifying water, reducing sediment loads and enhancing soil stability, contributing to groundwater recharge, dissipating high-energy flows (floods), and supporting greater biodiversity. Riparian areas—occurring on streambanks and floodplains, at springs, seeps, potholes, wet meadows, sloughs, marshes, swamps, and bogs—are all important resources for aquatic organisms, wildlife, grazing, and recreation. Healthy and productive riparian areas provide water, food, cover, and travel lanes for many aquatic and terrestrial wildlife species, some of which are obligate to the riparian area and not found in dryer upland areas. Native riparian plants and their root systems contribute to improved water quality and quantity by holding soils in place while filtering sediments, increasing ground water recharge, and protecting streambanks. The value of riparian areas to the general public has been increasing by providing opportunities for a wide variety of recreation activities and aesthetic attributes. However, riparian ecosystems are fragile resources that are among the first indicators of impacts from disturbance.

The 2013 Analysis of the Management Situation for the 2016 Master Leasing Plan states that "Some notable differences in riparian/wetland condition and priorities have occurred in areas with popular OHV use (and associated dispersed camping), reoccurring livestock grazing, and increased use of county access roads" (BLM 2013). Surface runoff and transport of saline soils has been linked to increased salinity levels in the Colorado River. Surface-disturbing activities from travel-related disturbances in or near areas of highly erosive soils or in sensitive areas, such as stream channels and riparian habitats, increase the potential for surface runoff (i.e., soil displacement), geomorphic change, sediment transport and water quality impacts in channels and riparian areas. In general, travel route proximity to riparian areas or intermittent or perennial drainages can have a bearing on water quality degradation.

3.2.6.2 Environmental Effects Analysis

The following assumptions and methodologies were applied in this analysis of potential effects on water resources from the alternative travel route network designations:

- In addition to routes that directly cross a riparian area or intermittent or perennial drainage, routes or portions of routes that are located within 100 meters of riparian areas are included in analysis.
- A well-planned travel route network would help conserve and protect the public land water resources of the TMA by continuing to restrict OHV use to designated routes.
- Travel network alternatives that designate more miles OHV-closed in and near riparian areas and/or streams would provide higher levels of protection from surface disturbances and indirectly help reduce and minimize effects to water resources and water quality.
- Impacts to water resources would be reduced and minimized by applying best management practices (BMPs) for operation and maintenance of all routes designated for motorized use.
- Access to stock ponds/reservoirs would continue for permittees and other authorized users.

Travel routes can serve as a conduit for sediment transport (indirect) into intermittent or perennial drainages and riparian areas during runoff events. Surface disturbances from motorized and non-motorized travel can also remove soil-stabilizing agents, such as vegetative cover, soil crusts, and woody debris. Loss of one or more of these agents increases potential erosion and sediment transport into water bodies and riparian areas, contributing to water quality degradation. Poorly located roads and trails in highly erosive soil and steep slope areas (i.e., slopes greater than 20 percent) that are proximate to, leading to, or crossing drainages will result in higher amounts of sediment travel and deposition in water bodies and riparian areas during storms and runoff events. Indicators are rills and gullies leading to and from travel routes and draining into existing perennial or intermittent streams or riparian areas and declining riparian zone vegetation health, diversity, density, and vigor. Impacts to floodplains primarily consist of loss of vegetation and geomorphic changes to bank angle, bank stability, increasing channel width, increasing width/depth ratios, and in some cases creating artificial flow channels at or near route/stream intersections. Floodplain connectivity may be impaired due to increased erosion and channel downcutting resulting from accelerated flood velocities linked to loss of vegetation or soil compaction.

TMP implementation activities that could result in compaction or increased sediment or contaminant load include route maintenance (i.e., surface and ditch blading, drainage structure installations, etc.), ripping and seeding of closed routes, and sign placement (digging post holes). These effects are likely to be temporary because they occur infrequently and only last until the soils stabilize. Some of the activities listed above could have a long-term beneficial effect on water resources. For example, sign placement could encourage managed travel on stable designated routes less disruptive to waterways; drainage structures installed at appropriate intervals and locations (i.e., with adequate buffer areas at outlets) could help minimize route-related erosion and sediment transport into waterways; and seeding and planting of closed routes could help reestablish native vegetation communities, thereby improving soils' resiliency to water impairment-related erosion.

Table 3.9: Number of Evaluated Routes In or Crossing Streams

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Perennial Streams (1 route; 0.3% of evaluated network)	OHV-Open	1	1	0	1	0	1	0
	OHV-Closed	0	0	0	0	0	0	0
Intermittent Streams (4 routes; 1% of evaluated network)	OHV-Open	4	4	0	4	0	4	0
	OHV-Closed	0	0	0	0	0	0	0
Ephemeral Streams (50 routes; 17% of evaluated network)	OHV-Open	50	31	-19	40	-10	45	-5
	OHV-Closed	0	19	19	10	10	5	5

Table 3.10: Number of Evaluated Routes In, Crossing, or Proximate to Riparian Areas

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Within 100 m of Riparian Areas (21 routes; 7% of evaluated network)	OHV-Open	21	11	-10	16	-5	20	-1
	OHV-Closed	0	10	10	5	5	1	1

Alternative A (No Action)

Within the current travel network, approximately 18% of the routes cross streams. Of these routes, only 1 crosses a perennial stream, 4 cross intermittent streams, and the rest cross ephemeral streams. A total of 21 routes (7% of the network) are within 100 meters of riparian areas. All of the Alternative A routes associated with streams and riparian areas are designated for OHV use. This OHV and associated human use (i.e., camping, exploring, etc.) on routes in or proximate to streams and riparian areas causes erosion, sedimentation, and loss of important streamside and riparian vegetative cover. Subsequent sediment travel and deposition in streams and riparian areas leads to water quality degradation. Impacts to water quality from ongoing OHV use (i.e., erosion, sedimentation and salination, loss of important streamside and riparian vegetative cover, etc.) would reflect continuation of current management.

Alternative B

Of the routes crossing perennial or intermittent streams, Alternative B would see no change from Alternative A, as these routes would be designated OHV-open. However, Alternative B would reduce the number of routes designated for OHV use that cross ephemeral streams by 38% (19 routes) and the number of routes in or proximate to riparian areas by 48% (10 routes). These OHV closures would help protect the TMA's water resources from travel-related erosion, sedimentation, and riparian area and water quality degradation caused by OHV and access-related human uses. Overall, the Alternative B travel network would result in the least amount of potential impacts to water resources of any of the alternative travel networks within the TMA.

Alternative C

As with the other alternatives, Alternative C would designate as OHV-open the 5 routes crossing perennial or intermittent streams. Alternative C would decrease the number of routes designated for OHV use that cross ephemeral streams by 20% (10 routes) and the number of routes that are in or proximate to riparian areas by 24% (5 routes). These decreases would help reduce effects from OHV and related uses in areas of water resources, though not nearly as much as Alternative B. Given that most of the Alternative C network would remain open to OHV use, this network has similar likelihood to Alternative A for reducing travel-related adverse impacts on the TMA's water resources.

Alternative D

As with the other alternatives, Alternative D would designate as OHV-open the 5 routes crossing perennial or intermittent streams. Alternative D would decrease the number of routes designated for OHV use that cross ephemeral streams by 10% (5 routes) and the number of routes that are in or proximate to riparian areas by 1 route. Given that many of the routes currently open to public OHV use would also be designated as open in Alternative D, this route network would result in similar levels of erosion, sedimentation, and degradation to water resources as compared to Alternative A.

3.2.7 Wildlife: Fish (T&E and BLM Sensitive Species)

How would travel network route designations effect Threatened and Endangered and BLM Sensitive fish species and habitat within the TMA?

3.2.7.1 Affected Environment

The TMA contains critical habitat for the federally listed endangered Colorado pikeminnow and razorback sucker, connectivity with critical habitat for the federally listed endangered humpback and bonytail chubs below the Colorado-Green River confluence, and important habitat for BLM sensitive fish species (roundtail chub, flannelmouth sucker, and bluehead sucker). This aquatic habitat comprises 10.6 miles of the Colorado River flowing through the northern portion of the TMA. More information on the habitat requirements of these Threatened and Endangered and BLM sensitive fish species can be found below. These special status species (SSS) fish have declined due to streamflow regulation, competition with and predation by nonnative fish species, and habitat modification resulting in habitat loss, degradation, and fragmentation caused by watershed changes, including increased sedimentation and negative water quality changes (e.g., pollutants and pesticides).

- **Bluehead sucker (*Catostomus discobolus*) – BLM Sensitive:** Bluehead suckers are widespread in rocky riffle habitats of small to large rivers in the Upper Colorado River Basin. They now occupy about 50% of their historical range in the Upper Colorado River Basin (Utah Department of Wildlife Resources (UDWR) 2006). Important habitat for this species is found within the TMA.
- **Bonytail chub (*Gila elegans*) – Endangered:** According to NatureServe, "This fish species is a warm-water species that appears to favor main-stem rivers, regardless of turbidity, usually in or near deep swift water [and] in flowing pools and eddies just outside the main current. It also has been found in reservoirs" (2019). It is found in

streams below elevations of 4,000 feet (USFWS 2009). For more details on habitat, threats, and trends, see USFWS 2009 and page viii of USFWS 2002a. Bonytail Chub critical habitat occurs along the portion of the Colorado River that flows through the northern part of the TMA.

- **Colorado pikeminnow (*Ptychocheilus lucius*) – Endangered:** The Colorado pikeminnow is endemic to the Colorado River Basin of the southwestern United States. The Colorado River Basin contains wild, reproducing populations. The USFWS notes, "The Colorado pikeminnow is a long-distance migrator; moving hundreds of kilometers to and from spawning areas" (USFWS 2002b). It requires high spring flows from runoff that provide habitat diversity crucial habitat for spawning. For details on habitat, stresses, and threats, see NSE 2019, USFWS 2002b, and USFWS 2011. Critical habitat for this species spans the portion the Colorado River within the TMA.
- **Flannelmouth sucker (*Catostomus latipinnis*) – BLM Sensitive:** The flannelmouth sucker is typically found in pools and deeper runs of medium to large rivers. They now occupy about 50% of their historical range in the Upper Colorado River Basin (UDWR 2006). Important habitat for this species is found within the TMA.
- **Humpback chub (*Gila cypha*) – Endangered:** The humpback chub requires rocky canyon river habitat. For details on habitat, stresses, and threats, see NSE 2019 and USFWS 2018. Critical habitat for this species spans the portion of the Colorado River within the TMA.
- **Razorback sucker (*Xyrauchen texanus*) – Endangered:** The razorback sucker is found in backwaters, flooded bottomlands, pools, side channels and other slower moving waters (USFWS 2002c). It is associated with bars of cobble, gravel, and sand substrates in areas with sparse aquatic vegetation and moderate to warm temperatures (NSE 2019). The USFWS notes, "Young require nursery environments with quiet, warm, shallow water such as tributary mouths, backwaters, or inundated floodplain habitats in rivers, and coves or shorelines in reservoirs" (2002c). For details on habitat, stresses, and threats, see NSE 2019 and USFWS 2002c. Razorback sucker critical habitat occurs along the portion of the Colorado River within TMA.
- **Roundtail chub (*Gila robusta*) – BLM Sensitive:** Habitat consists of rocky runs, rapids, and pools of creeks, streams, and rivers. They now occupy about 45% of their historical range in the Upper Colorado River Basin (UDWR 2006). Important habitat for this species is found within the TMA.

3.2.7.2 Environmental Effects Analysis

Travel routes can have direct effects on water quality and fish habitat where routes intercept and channel runoff, concentrating sediment and saline soils into aquatic reaches. They can also cause mortality of eggs, young of year, or adults through direct contact with vehicle traffic. Travel route drainage structures and crossings can limit or cut off fish breeding and spawning connectivity. OHV use can also result in damage to vegetation and soil-stabilizing agents through trampling and dusting and can accelerate soil displacement, erosion, and sediment transport into aquatic habitat.

Effects are analyzed collectively for the sensitive fish species in the TMA, as the habitat for each species is the same: the portion of the Colorado River that flows through the area. The TMA has 7 routes proximate to the Colorado River habitat for the SSS fish species noted above.

Only special status fish species are analyzed in detail in this EA. For analysis of travel-related effects on portions of lower Kane Creek and Hatch Wash, both of which are fish-bearing but are not known to have SSS fish species, see section 3.2.6 Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality.

Table 3.11: Number of Evaluated Routes In, Crossing, or Proximate to Streams with Special Status Fish Species

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Fish-Bearing Streams (7 routes; 2% of evaluated network)	OHV-Open	7	4	-3	5	-2	7	0
	OHV-Closed	0	3	3	2	2	0	0

Alternative A (No Action)

Though the current designated network has only 7 routes (2% of the total route network) in the vicinity of Colorado River SSS fish habitat, all are designated as open to OHV use. Impacts to the TMA's fish species (i.e., degradation of water quality and fish habitat due to erosion; sedimentation; and loss of important streamside and riparian vegetative cover) from the routes and ongoing related use would reflect a continuation of current management.

Alternative B

The Alternative B route network proposes to designate as OHV-open 4 of the 7 routes that are proximate to the Colorado River in the TMA. By closing nearly half these routes, Alternative B does the most of any network alternative in protecting SSS fish from the effects of soil destabilization and related sedimentation and salinity issues.

Alternative C

The Alternative C network would designate as OHV-open 5 of the 7 routes that are proximate to the Colorado River in the TMA. Though it closes only 2 of the routes, these closures would still help reduce the travel-related effects of soil destabilization and related sedimentation and salinity issues on SSS fish compared to Alternative A.

Alternative D

See effects analysis for Alternative A, above, as route designations for those routes proximate to the Colorado River under the Alternative D network are identical to those of Alternative A.

3.2.8 Wildlife: General Wildlife

How would route network designations minimize impacts to general wildlife within the TMA?

3.2.8.1 Affected Environment

The TMA supports various big game and other general wildlife species. The Canyon Rims Recreation Area Management Plan points out that "large, remote pieces of habitat are becoming increasingly rare. The wildlife resources of the Canyon Rims Recreation Area cannot be overstated" (BLM 2002). Not all TMA wildlife, wildlife habitat, and potential effects on these resources from the alternative travel networks are discussed below; rather, only those that are most likely to be affected and were identified as key issues in scoping. These include desert bighorn sheep and pronghorn antelope.

Desert bighorn sheep (*Ovis canadensis nelsoni*) inhabit remote and rugged terrain—slickrock canyons, rocky slopes, and canyonlands—and are one of the resources managed in the Highway 279/Shafer Basin/Long Canyon ACEC. Bighorns are native to Utah and were well known to the prehistoric inhabitants of the state; they inhabited nearly every mountain range in the state prior to European settlement. Because of the remote and inaccessible areas they inhabit, bighorn are sometimes referred to as a "wilderness species" (UDWR 2018a). Populations have struggled to survive human impacts. Today, desert bighorn generally occur in southern Utah and do not migrate. The UDWR estimates the current population to be around 2,900 animals in the state (2018a). Residing in the Highway 279/Shafer Basin/Long Canyon ACEC, the Potash herd is one of the only remaining native populations of desert bighorn in Utah and the West and has served as a source herd for re-introductions throughout the West. Individuals in this herd have exhibited important genetic traits that have enabled them to withstand various diseases that can often reduce herd viability. BLM-managed lands in the TMA include approximately 27,500 acres of desert bighorn habitat, of which approximately 8,380 acres have been identified by the UDWR and the Moab FO as crucial lambing habitats. Several GPS collar studies (2003-2010) and modeling exercises have also determined that these bighorn not only utilize these areas for lambing and rutting but consistently utilize these habitats year-round. Much of this lambing habitat is within the Highway 279/Shafer Basin/Long Canyon ACEC (designated as an ACEC in part for its desert bighorn habitat).

Pronghorn antelope (*Antilocapra americana*) historically ranged widely west of the Mississippi. The late 1800s saw drastic declines in population due to fencing, habitat loss, and unregulated hunting, but populations have since recovered; recent estimates place the North American population around 800,000, including nearly 16,000 in Utah. Pronghorn primarily inhabit grasslands and shrub steppe biomes with succulent forb vegetation and available water (UDWR 2017b). The TMA contains 72,641 acres (63,778 acres of which are BLM lands) of pronghorn habitat.

3.2.8.2 Environmental Effects Analysis

The nature and type of impacts on big game and general wildlife and their habitats from travel route designations and route-related uses can include habitat avoidance and abandonment, interference of daily movement, increased physical stress that can result in decreased health, and increased vehicle collisions resulting in injury or mortality. These impacts can escalate seasonally during sensitive birthing, rearing, and breeding seasons and during extreme weather

regimes such as drought, extreme heat or cold, or heavy snowfall. Habitat loss and fragmentation are indirect impacts resulting from travel-related surface disturbances from motorized and non-motorized vehicle travel. Such use can result in:

- Increased soil erosion and direct loss of vegetative habitat
- Invasive plants and noxious weed establishment in disturbed areas which in turn increases the potential and frequency for wildland fire
- Surface disturbances that promote growth and spread of invasive plants and noxious weeds into native vegetative communities, reducing habitat quality, foraging availability, and thermal cover
- Increased dusting of crucial native vegetative habitat resulting in plant mortality, and subsequent reduction of habitat quality, foraging availability, and thermal cover

The potential for direct and indirect impacts on big game and general wildlife habitats from OHV use can be estimated by comparing miles of routes and/or percentage of a given travel network designated as Open, Limited, and Closed in areas of wildlife habitats. Conversely, travel routes can also provide beneficial access for resource management activities such as vegetation monitoring, wildlife monitoring, hunting and legal game retrieval, invasive species treatment, and wildland fire suppression. Hunting and game retrieval access serves to support UDWR management efforts where hunting is used as a management tool to control populations of big game species.

TMP implementation activities that could affect general wildlife and their habitats include installing new signs, route maintenance (grading, installing water control structures, surfacing, etc.), route decommissioning or reclamation (including ripping the ground and planting seed, grading/recontouring), or installing fencing or barriers. If implementation is proposed that requires new surface disturbance, additional site-specific NEPA would be required before the activity could occur. Seeding and planting on closed routes could accelerate reclamation and help to reestablish habitat. Implementation activities in riparian areas are of particular concern for general wildlife and migratory birds, though some implementation activities would have a positive effect on riparian habitats; for example, sign placement could encourage managed travel on routes less disruptive to riparian resources.

The wildlife analysis below focuses on desert bighorn sheep and antelope, but identified impacts will have similar consequences to other wildlife species that inhabitant the area. Analysis for bighorn will focus on travel-related effects on lambing habitats identified by the UDWR, as bighorn are particularly sensitive to disturbance during the lambing season but typically reside in these lambing habitats year-round.

Table 3.12: Miles of Evaluated Routes in Desert Bighorn Lambing Areas

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Year-Long Crucial Desert Bighorn Lambing Habitat* (11.9 miles; 4% of evaluated network)	OHV-Open	11.9	10.4	-1.5	10.6	-1.3	11.4	-0.4
	OHV-Closed	0.0	1.5	1.5	1.3	1.3	0.4	0.4

**UDWR Habitat Coverages access 2019 (https://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.htm)*

Table 3.13: Miles of Evaluated Routes in Pronghorn Antelope Habitat

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Year-Long Crucial Pronghorn Habitat* (214.8 miles; 79% of evaluated network)	OHV-Open	214.8	153.2	-61.6	179.8	-35.0	194.4	-20.4
	OHV-Closed	0.0	61.6	61.6	35.0	35.0	20.4	20.4

**UDWR Habitat Coverages access 2019 (https://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.*

Alternative A (No Action)

The current travel route network has 11.9 miles within desert bighorn lambing areas, all of which are designated as open to OHV use. Most of the current travel route network (approximately 79%) is also in pronghorn habitat, leaving these habitat areas at high risk for travel-related disturbance. Impacts to habitat from ongoing OHV use (i.e., direct mortality, injury, behavioral modifications, habitat alteration, habitat fragmentation, etc.) would reflect a continuation of current management.

Alternative B

Compared to Alternative A, the Alternative B travel network would decrease route miles designated for OHV use in bighorn lambing habitats by 12% (1.5 mi). In pronghorn habitat, Alternative B proposes a 29% decrease (61.6 mi) in miles open to OHV use compared to Alternative A; most (42.6 mi) of these OHV-closed route miles would be earmarked for reclamation. For both bighorn and pronghorn habitats, the Alternative B travel network would do the most of any network alternative to minimize the direct and indirect effects of travel routes and related use described above while also maintaining some access for wildlife management purposes. Overall, this alternative has the greatest likelihood of any alternative to reduce travel route-related adverse impacts to habitat for bighorn, pronghorn, and other wildlife in the TMA.

Alternative C

Compared to Alternative A, the Alternative C travel network would decrease route miles designated for OHV use in bighorn lambing habitats by 11% (1.3 mi), nearly as much as Alternative B. In pronghorn habitat, Alternative C proposes a 16% decrease (35.0 mi) in route miles open to OHV use compared to Alternative A, about half that of Alternative B. Like Alternative B, most of the OHV-closed routes miles in Alternative C (24.3 mi) would be earmarked for reclamation. The reductions in travel route miles designated for OHV use in bighorn and pronghorn habitat under this alternative would reduce travel-related effects on those habitats while also maintaining access.

Alternative D

Compared to Alternative A, Alternative D proposes a reduction in route miles designated OHV-open in bighorn lambing habitat of only 4% (0.4 mi). In pronghorn habitat, Alternative D would reduce route miles open to OHV use by 10% (20.4 mi) compared to Alternative A, most (13.3 mi) of which would be earmarked for reclamation. Alternative D does less than Alternatives B and C to minimize route-related effects in bighorn and pronghorn habitat but does provide more access for wildlife management activities. Given the relatively small reduction in route miles

open to public motorized use, Alternative D would have greater travel route-related impacts to bighorn, pronghorn, and other wildlife and their habitats than the other action network alternatives but slightly less than those of Alternative A.

3.2.9 Wildlife: Migratory Birds, Including Raptors

How would travel network route designations impact migratory birds within the TMA?

3.2.9.1 Affected Environment

Migratory birds, including nesting raptors, use the TMA for foraging, roosting, and nesting. Many migratory birds depend on riparian areas (for more on riparian resources, see section 3.2.6 Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality), so the riparian vegetation found in Hatch Wash is particularly valuable, both during migration and for nesting (BLM 2002). Nesting habitat for migratory birds includes tree limbs, ground sites, and rock outcrops. Raptors are widely accepted to be indicator species of environmental health because of their position at the top of food chains. Romin and Muck state that "Each raptor nest, its offspring, and supporting habitats are considered important to the long-term viability of raptor populations and are vulnerable to disturbance by many human activities" (USFWS 2002d). Raptors tend to nest on promontory points such as cliff faces and rock outcrops, but they may also nest in pinyon, juniper, or deciduous trees (BLM 2013). There is limited potential for occurrence of the ferruginous hawk, a Utah BLM sensitive species, in the TMA.

3.2.9.2 Environmental Effects Analysis

The nature and type of impacts on migratory birds and their habitat suitability from travel route designations and route-related uses include disturbance, mortality or injury from collision, and trampling or damage of brooding, nesting, foraging, and cover habitat. Travel route use can also cause disturbance or interference with courtship, nesting, brood-rearing, or fledging activities. Because of sensitivity and fidelity to nest territory, abandonment of nest sites due to nearby human disturbances is of particular concern. Habitat-associated indirect risk factors of travel routes and related use include damage, loss, or fragmentation through isolation of habitats, establishment or spread of invasive weeds, and increased wildfire potential. Indirect effects also include altering or influencing of prey species (e.g., rodents, lizards, and snakes) behavior as a result of disturbance to cover vegetation (USFWS 2002d).

TMP implementation activities that could affect migratory birds and their habitats include installing new signs, route maintenance (grading, installing water control structures, surfacing, etc.), route decommissioning or reclamation (including ripping the ground and planting seed, grading/recontouring), or installing fencing or barriers. If implementation is proposed that requires new surface disturbance, additional site-specific NEPA would be required before the activity could occur. Seeding and planting on closed routes could accelerate reclamation and help to reestablish habitat. Implementation activities in riparian areas are of particular concern for general wildlife and migratory birds, though some implementation activities would have a positive effect on riparian habitats; for example, sign placement could encourage managed travel on routes less disruptive to riparian resources.

Because the entire TMA contains some level of potential migratory bird habitat, Table 3.14 (identical to Table 2.1: Alternative Mileages by Major Designation) shows total miles of routes by major designation for each alternative.

Table 3.14: Miles of Evaluated Routes in Migratory Bird Habitat

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Migratory Bird Habitat (272.5 miles; 100% of evaluated network)	OHV-Open	272.5	197.5	-75.0	226.6	-45.9	246.0	-26.4
	OHV-Closed	0.0	75.0	75.0	45.9	45.9	26.4	26.4

Table 3.15, below, shows the number of routes within ½ mile of raptor nests.

Table 3.15: Number of Evaluated Routes Proximate to Raptor Nests

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Raptor Nest (40 routes; 14% of evaluated network)	OHV-Open	40	23	-17	27	-13	30	-10
	OHV-Closed	0	17	17	13	13	10	10

Alternative A (No Action)

The entire TMA provides some level of habitat potential for migratory birds, so all route miles and related uses in the current travel network have the potential to affect migratory birds and their habitat. The current travel network contains 272.5 miles of routes, all of which are open year-round to motorized use. Continuation of this level of OHV-open designations would result in continued potential for the direct and indirect adverse impacts to migratory bird habitat described above throughout the TMA.

Within the current travel route network, 14% of the routes are within ½-mile of known raptor nests, all of which are open year-round to motorized travel. With none of these nearby routes limited or closed to OHV use, Alternative A would result in continued potential for adverse effects such as disturbance to habitat, alteration of prey species behavior, or interference with nesting, courtship, or fledgling activities for raptors.

Impacts to habitat from ongoing OHV use (i.e., direct mortality, injury, behavioral modifications, habitat alteration, habitat fragmentation, etc.) would reflect a continuation of current management.

Alternative B

Alternative B would have approximately 198 miles of travel routes open year-round to OHV use in migratory bird habitat, about 28% less than Alternative A. Approximately 55 miles of routes designated OHV-closed would be earmarked for reclamation. The OHV closures in this alternative would minimize the potential for adverse travel-related effects to migratory bird habitat.

The Alternative B route network would also provide for a decrease of about 43% in routes designated for OHV use within ½-mile of known raptor nests compared to Alternative A. Nearly all of the closed routes would be earmarked for reclamation, resulting in fewer direct impacts such as mortality from collision, habitat disturbance, and trampling as well as fewer indirect effects such as alteration of prey species behavior from disturbance to cover vegetation. As compared to Alternatives C and D, Alternative B proposes OHV-open designations for approximately 15%-23% fewer routes in areas of raptor nests, resulting in correspondingly fewer adverse impacts.

Overall, the Alternative B route network has the greatest likelihood of any network alternative for reducing adverse impacts on migratory birds, including nesting raptors, in the TMA.

Alternative C

Alternative C proposes OHV-open designations for approximately 226.6 miles of travel routes in migratory bird habitat, a 20% decrease compared to Alternative A. Most (75%) of the OHV-closed miles would be earmarked for reclamation. The decrease in miles designated for OHV use would help to reduce or minimize the potential for adverse travel-related effects to migratory bird habitat.

Compared to Alternative A, the Alternative C route network proposes a 33% decrease in routes designated OHV-open in areas of known raptor nests. This relatively large decrease in open OHV routes would result in notably fewer route-related impacts to nesting raptors compared to Alternative A. Alternative C would designate more routes for OHV use in areas of raptor nests than Alternative B but fewer than Alternative D.

With fewer routes open year-round to OHV use in areas of known raptor nests compared to Alternative A, Alternative C—like Alternative B—has the potential for reducing adverse impacts to nesting raptors. However, the route miles in migratory bird habitat open year-round to OHV use is only reduced by 20% compared to Alternative A. Overall, Alternative C would have greater travel route-related impacts to migratory birds and raptors and their habitats than Alternative B, but less than those of Alternative D and Alternative A.

Alternative D

The Alternative D route network proposes OHV-open designations for approximately 246 miles of routes in migratory bird habitat, a reduction of approximately 10% compared to Alternative A. While route use-related effects to migratory birds would be reduced, Alternative D would not minimize effects nearly as much as Alternatives B or C.

In areas of raptor nests, Alternative D proposes more year-round OHV-open designations than Alternatives B and C yet still provides for a drop of 25% compared to Alternative A, with nearly all the closed routes being earmarked for reclamation.

Overall, given the relatively small decrease in miles of routes open to year-round OHV use in migratory bird and raptor habitat, the Alternative D route network would have greater travel route-related impacts to migratory birds and raptors and their habitats than the other action network alternatives but slightly less than those of Alternative A.

3.2.10 Wildlife: Special Status Species, excluding Fish (Federally Listed and Utah BLM Sensitive Species)

How would travel network route designations impact special status species wildlife within the TMA?

3.2.10.1 Affected Environment

Several special status wildlife species have the potential to occur within the TMA:

- **Burrowing owl (*Athene cunicularia*) – BLM Sensitive:** Burrowing owl habitat consists of "open, treeless areas with low, sparse vegetation, usually on gently sloping terrain," including grasslands, deserts, and steppe environments, and they are often associated with high densities of burrowing mammals such as prairie dogs, ground squirrels, and tortoises (CLO 2017). Stresses on the western burrowing owl include habitat loss and fragmentation due to urban land conversion and declines in populations of colonial burrowing mammals (USFWS 2003). The entire TMA has some level of potential for burrowing owl use.
- **California condor (*Gymnogyps californianus*) – Endangered:** The California condor is listed as a federally endangered species with non-essential, experimental status in the TMA, meaning this species is treated as though it is proposed for federal listing rather than as endangered. Though historically widespread in California, Arizona, Oregon, and Mexico, it declined to extirpation in the wild in the mid-1980s; captive breeding and reintroduction efforts are in progress, and the species is now found in California, Arizona, and southern Utah. Nesting habitat tends to be steep, remote terrain—rock or cliff escarpments—in mountains or canyons. Foraging areas are typically separate, in open grasslands, oak savannas, and mountain plateaus (NSE 2019). Experimental habitat exists across the TMA, though the only known occurrence within Utah is in the southwest corner of the state.
- **Gunnison's prairie dog (*Cynomys gunnisoni*) – BLM Sensitive:** Gunnison's prairie dog habitat includes grassland, semi-desert, and montane shrubland; they require deep, well-drained soils for burrow construction (UDWR 2007). Due to poisoning and plague, "GPD populations today are highly fragmented into complexes of small, isolated colonies" (UDWR 2017a). The entire TMA has some level of potential for Gunnison's prairie dog use.
- **Kit fox (*Vulpes macrotis*) – BLM Sensitive:** Kit fox habitat within the TMA is comprised of semi-desert and shrub-grass biomes that consist primarily of shadscale, greasewood, and sagebrush (NSE 2019). Kit foxes "occupy habitats that provide favorable combinations of low predator numbers, sufficient prey, and soils suitable for denning" (UDWR 2017a). The entire TMA has some level of potential for kit fox use.
- **Mexican spotted owl (*Strix occidentalis lucida*) – Endangered:** The Mexican spotted owl is found across a broad geographic area, but not uniformly. It is considered imperiled in Utah (NSE 2019). Species habitat includes old-growth and mature forests as well as canyon walls; these environments provide sites for protected nests and roosts. In Utah, breeding owls primarily inhabit deep, steep-walled canyons and hanging canyons that typically are surrounded by terrain that may provide foraging habitat (USFWS 2012).

Critical habitat includes 49,060 acres (42,917 on BLM) within the TMA, primarily in the northern part of the area.

- **Spotted bat (*Euderma maculatum*) – BLM Sensitive:** Spotted bat habitat ranges from desert to forested areas; they tend to roost in caves and rock crevices (BLM 2013; UDWR 2017a). They are considered rare in Utah, though potential habitat exists throughout the TMA.
- **Townsend's big-eared bat (*Corynorhinus townsendii*) – BLM Sensitive:** Townsend's big-eared bat is found in many different types of habitat but tend to prefer forested areas and roost in caves, mines, and buildings. They are considered particularly sensitive to human disturbance (BLM 2013; UDWR 2017a). The entire TMA has some level of potential for Townsend's big-eared bat use.

3.2.10.2 Environmental Effects Analysis

The nature and type of impacts on listed and sensitive wildlife and habitat suitability from travel route networks and related uses include disturbance, mortality or injury from collision, and trampling or damage of forage and habitat for dens, burrows, or nests. Habitat-associated indirect risk factors of travel management include damage, loss, or fragmentation through isolation of habitats, spread of invasive weeds, and increased wildfire potential. Indirect effects also include altering or influencing of prey species (e.g., small mammals, rodents, lizards, snakes, and insects) behavior as a result of disturbance to cover vegetation. All proposed designations would occur entirely within existing route footprints; no new ground disturbance would be authorized by the TMP. TMP route use will result in the continuation of a variety of direct and indirect effects that are expected to increase over time due to increase in recreation and visitation and not as a result of the proposed route designations. The 2008 PRMP/EIS (BLM 2008b) identified and analyzed the impacts of all currently designated routes within the TMA. The proposed designations analyzed here are not expected to change current visitation growth rates; therefore, the effects of the TMP designation analysis presented in the 2008 PRMP/EIS are still applicable.

Table 3.16: Miles of Evaluated Routes in Special Status Wildlife Species Habitats

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
Mexican Spotted Owl Designated Critical Habitat (109.1 miles; 40% of evaluated network)	OHV-Open	109.1	74.8	-34.3	88.7	-20.4	97.4	-11.7
	OHV-Closed	0.0	34.3	34.3	20.4	20.4	11.7	11.7
Mexican Spotted Owl Modeled Breeding Habitat (174.1 miles; 64% of evaluated network)	OHV-Open	174.1	123.8	-50.3	143.6	-30.5	157.0	-17.1
	OHV-Closed	0.0	50.3	50.3	30.5	30.5	17.1	17.1
Burrowing Owl Habitat (59.7 miles; 22% of evaluated network)	OHV-Open	59.7	43.7	-16.0	51.5	-8.1	54.6	-5.1
	OHV-Closed	0.0	16.0	16.0	8.1	8.1	5.1	5.1
Gunnison's Prairie Dog Habitat (111.9 miles; 41% of evaluated network)	OHV-Open	111.9	83.5	-28.4	95.5	-16.4	100.2	-11.7
	OHV-Closed	0.0	28.4	28.4	16.4	16.4	11.7	11.7

Alternative A (No Action)

Some level of habitat potential for kit fox, Townsend's big-eared bat, and spotted bat, as well as California condor experimental habitat occurs across the entire TMA (see Table 2.1: Alternative Mileages by Major Designation); the Alternative A travel network, with the most route miles open to OHV use in SSS habitat, would have the most potential for adverse impacts (e.g., disturbance, displacement, mortality or injury, loss of foraging, loss of cover and breeding habitat, avoidance, and fragmentation) to listed and sensitive species of any of the alternatives. Of the Alternative A network, 40% of the route miles are in areas designated by the USFWS as Mexican spotted owl designated critical habitat and 64% are in areas modeled as potential breeding habitat, all of which are designated for year-round OHV use, creating substantial potential for travel-related mortality, disruption of behavior, avoidance, and disturbance in Mexican spotted owl habitat. Of the current route network, 22% is in burrowing owl habitat and 41% is in Gunnison's prairie dog habitat. Impacts to special status animal habitat from ongoing OHV use (i.e., direct mortality, injury, behavioral modifications, habitat alteration, habitat fragmentation, etc.) would reflect a continuation of current management.

Alternative B

Alternative B proposes a decrease in total route miles designated for OHV use in SSS habitat of nearly 30% compared to Alterative A; as a result, Alternative B would have notably less potential for adverse effects on kit fox, Townsend's big-eared bat, spotted bat, and California condor experimental habitat. Alternative B also proposes 25-32% decreases in route miles open to OHV use in Mexican spotted owl, burrowing owl, and Gunnison's prairie dog habitats, correspondingly decreasing the potential for mortality from vehicle collision, trampling of forage or burrow and nest habitat, avoidance, and habitat fragmentation. An estimated 70-90% of the OHV-closed miles would be earmarked for reclamation. Overall, the Alternative B network would have greater likelihood than the other alternatives for reducing travel route-related adverse impacts to special status species and their habitats.

Alternative C

Compared to Alternative A, Alternative C proposes a 20% decrease in route miles open to OHV use; as a result, Alternative C would have somewhat less potential for adverse effects on kit fox, Townsend's big-eared bat, spotted bat, and California condor experimental habitats. In Mexican spotted owl, burrowing owl, and Gunnison's prairie dog habitats, Alternative B proposes 14-19% decreases in route miles open to OHV use. Most of the OHV-closed miles would be earmarked for reclamation. Overall, the Alternative C travel network would have greater likelihood for reducing travel route-related adverse impacts to special status wildlife species and their habitats than Alternative D and the No Action alternative, but less than Alternative B.

Alternative D

Compared to Alternative A, Alternative D proposes a 10% decrease in route miles open to OHV use; as a result, the Alternative D network would have slightly less potential for adverse impacts to kit fox, Townsend's big-eared bat, spotted bat, and California condor experimental habitats as compared to Alternative A, but more potential for adverse effects as compared to the other action alternatives. In Mexican spotted owl, burrowing owl, and Gunnison's prairie dog habitats, Alternative D proposes 9-11% decreases in route miles open to OHV use compared to

Alternative A. Most of the miles closed to OHV use would be earmarked for reclamation. Though the OHV-open decreases are less than those in the other action alternatives, they would still offer slightly more protections than Alternative A for these species and their habitats from impacts such as collision mortality, trampling of forage or burrow and nest habitat, avoidance, and habitat fragmentation.

3.2.11 Cumulative Effects for Key Issue 1

The cumulative impact analysis area (CIAA) used to analyze cumulative impacts for most of the resource topics analyzed in Section 3.2 under Key Issue 1 consists of the entire TMA, with the following exceptions:

- Lands with Wilderness Characteristics: The Moab FO area (most use of the Canyon Rims TMA will originate from Moab, which functions as the most likely tourist base camp; restriction on OHV travel in Canyon Rims could divert users to areas with fewer restrictions, thereby impacting LWCs in those areas not included in the TMA)
- Wild and Scenic River: The WSR corridor that stretches approximately three miles downstream of the TMA
- Visual Resource Management: The TMA and lands within its viewshed
- Water Resources: The Colorado River and its tributaries in the TMA downstream to its confluence with the Green River in Canyonlands National Park
- General Wildlife: The predicted range for pronghorn and desert bighorn within the TMA
- Migratory Birds: The TMA and habitat adjacent to the TMA, particularly the riparian corridors associated with the Colorado River watershed

Past, present, or reasonably foreseeable actions, plans, or projects impacting the resources or resource uses analyzed under Key Issue 1 include the following:

- 1976 Hatch Point Habitat Management Plan
- 1996 California Condor Recovery Plan (Third Revision)
- 2002 Canyon Rims Recreation Area Management Plan
- 2002 Amendments to the Recovery Plans for the bonytail chub, Colorado pikeminnow, and razorback sucker
- 2006 Range-wide Conservation Agreement and Strategy for Roundtail Chub (*Gila Robusta*), Bluehead Sucker (*Catostomus Discobolus*), and Flannelmouth Sucker (*Catostomus Latipi*); State, County, and private roadway developments; and energy and mineral development
- 2008 RMP
- 2012 Mexican Spotted Owl Recovery Plan
- 2013 Moab Master Leasing Plan and its associated Reasonably Foreseeable Development Scenarios for oil and gas and potash
- 2017 Utah Pronghorn Statewide Management Plan
- 2018 Utah Bighorn Sheep Statewide Management Plan
- In 2017, the UDWR started a wildlife migration initiative to "identify, preserve and enhance essential movement corridors for terrestrial and aquatic wildlife species in the state" that could "combine existing research and geographic information data sources into comprehensive projects to improve critical habitat" (UDWR 2018b).

- Ground-disturbing activities (e.g., mineral material site development, mining, road construction, livestock grazing and range-related projects, reservoir construction, oil and gas development, OHV and related recreational uses, etc.) on public and private lands within the TMA
    - Note: Within the ACEC a mining plan of operation is required for any proposed mining activity that would create surface disturbance greater than casual use (43 CFR 3809 Regulations)
- Route maintenance and use associated with mineral activities as well as general road maintenance
- Livestock and wildlife use
- Upland weed spraying along roadsides, in pastures, or in areas of high livestock or recreational use to minimize weed dispersal
- Noxious weeds and invasive species proliferation
- Ongoing recreation-related activities such as OHV use and vehicle exploring, hunting, horseback riding, hiking, camping, geocaching, and wildlife watching
- Paving of the Anticline Road and State, County, and private roadway developments
- Residential and commercial development
- Natural events, including drought and wildland fire
- Fire suppression

None of the travel network alternatives are proposing new surface-disturbing activities or access points which would add to the past, present or foreseeable future actions noted above. BLM determined that it may be reasonably foreseeable that three cultural sites may be adversely affected as defined in 36 CFR 800.5. As noted in 36 CFR 800.(a)(1) an adverse effect on a historic property does not necessarily lead to a significant impact. To address possible effects, the BLM developed a historic properties treatment plan (HPTP) that minimizes future effects to the three sites. Alternative B has the highest potential to reduce cumulative impacts to natural and cultural resources in the CIAA through route closures and implementation measures. Alternatives C and D would result in correspondingly lower potential to reduce cumulative impacts than Alternative B, while Alternative A would not reduce cumulative impacts to these resources within the CIAA.

3.3 Key Issue 2: Providing for recreation opportunities and experiences

3.3.1 Recreation

How would travel network route designations impact recreation opportunities in the TMA?

3.3.1.1 Affected Environment

The TMA offers significant opportunities for a variety of outdoor recreation activities, particularly scenic viewing, jeeping/four-wheeling, camping, and hiking. The Moab area is economically dependent upon recreation-based businesses, and the number of visitors continues to grow annually—peaking each year during spring and fall months. The TMA is managed as a Special Recreation Management Area and contains developed overlooks of the Colorado River,

two scenic backways (Needles Overlook and Anticline roads), Windwhistle and Hatch Point campgrounds, portions of the San Juan OHV Trail System, and hiking opportunities, including the Hatch Wash Hiking and Backpacking Focus Area. The Moab FO receives approximately 1,894,393 visitor days per year and the BLM estimates that under any of the alternatives, approximately 99.98% of these visitor days would be maintained (see Appendix F).

Visitation to the Canyon Rims portion of the Field Office differs in degree and intensity from other areas within the Moab FO. Traffic counter data from 2017 through 2020 indicate that the Canyon Rims TMA has actually seen a decrease in use. Traffic counters are located on the Needles Overlook road, which provides the primary access to all the routes in the Canyon Rims area. Using the April – October period for comparison, there were 90 vehicles/day in 2017, 74 vehicles/day in 2018, 82 vehicles/day in 2019 and 77 vehicles/day in 2020. This is a decrease in use of about 15% from 2017 to 2020; to compare a non-pandemic year, there was a decrease in use of 10% from 2017 to 2019. (Note: although BLM has no traffic counter data concerning the Shafer Basin portion of the TMA, almost all travel in that area is on the maintained B road travelling from Highway 279 to Canyonlands National Park).

BLM estimates (based on traffic counter and trail register data) that over 90% of the vehicles in Canyon Rims are travelling only on the Needles Overlook Road, and about 10% of the total vehicle count also travels on the Anticline Overlook Road (for example: in 2020, about 8 vehicles/day travelled on the Anticline Overlook Road). It is unknown exactly how many of these vehicles explore the dirt roads that connect to these two main roads, but anecdotal evidence indicates very few (many of the vehicles travelling on the two main routes are vehicles not intended for travelling on unimproved roads. Thus, motorized vehicle use of the Canyon Rims area appears to be decreasing.

3.3.1.2 Environmental Effects Analysis

Direct effects that travel networks and their use have on recreation include direct reductions or gains in access for desired recreation opportunities and experiences and in encounters or conflicts with other users seeking different experiences (e.g., equestrian users on open OHV routes encountering dirt bike users). Indirect impacts or effects include the actual gain or loss of recreation user opportunities and experiences afforded by the public lands for which a given travel network serves to provide access.

Based on use trends within the Moab FO, it is highly likely that visitation and demand for recreation opportunities will continue to increase, with visitors continuing to seek a diverse mix of motorized and non-motorized opportunities. Users seeking non-motorized recreation experiences (i.e., hiking, biking, and horseback riding) may in some cases benefit from a travel network that closes more OHV routes, while users seeking OHV opportunities would benefit more from a network with more open designations. Providing for a variety of motorized and non-motorized opportunities would also enhance user safety by separating motorized users from non-motorized users (e.g., reducing or eliminating encounters between motorcycle and equestrian or mountain bike users).

TMP implementation activities that could affect recreation include route maintenance (surface and ditch grading and drainage structure replacement or installation, etc.), and sign placement (digging post holes). Maintenance can interrupt or temporarily block normal route use or access

to recreation opportunities. However, maintenance actions would likely also enhance long-term access and safety for recreation experiences. Sign installation would direct recreationists to their destinations and educate recreationists on allowable uses for a particular route. If additional implementation measures are proposed that require new surface disturbance, additional site-specific NEPA consideration would be required before such activities could occur.

In analyzing the impacts of the various travel network alternatives on recreation, network miles and percent of a given network are used to provide a quantitative comparison of increased or decreased recreation user access for a variety of recreation activities and opportunities.

Table 3.17: Number of Evaluated Routes Providing Access for Various Recreation Activities

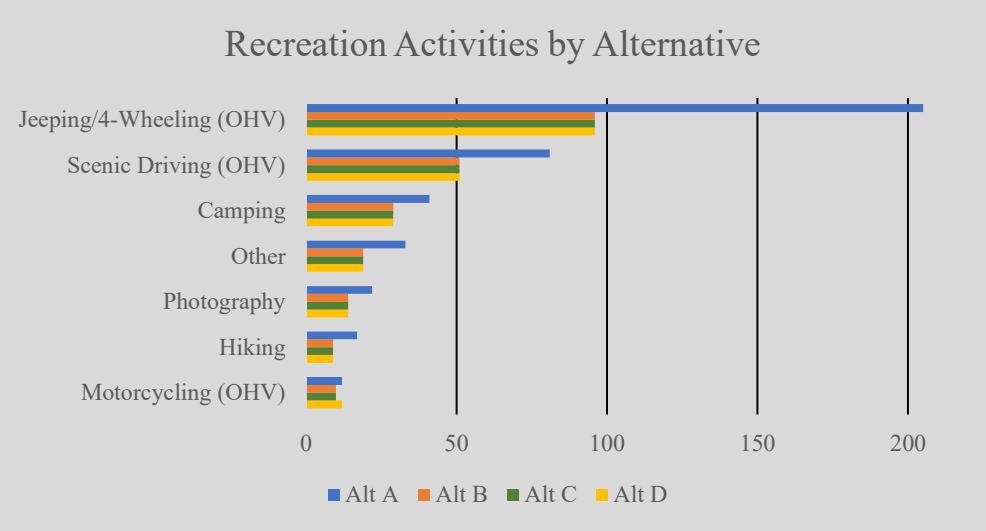

Table 3.18: Miles of Evaluated Routes by County Classification

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Miles	Miles	Difference in Miles	Miles	Difference in Miles	Miles	Difference in Miles
County B Routes (58 miles; 21% of evaluated network)	OHV Open	58.0	58.0	0.0	58.0	0.0	58.0	0.0
	OHV Closed	0.0	0.0	0.0	0.0	0.0	0.0	0.0
County D Routes (214.5 miles; 79% of evaluated network)	OHV Open	214.5	139.5	-75.0	168.6	-45.9	188.1	-26.4
	OHV Closed	0.0	75.0	75.0	45.9	45.9	26.4	26.4

Table 3.19: Number of Evaluated Routes Currently Providing Access to Particular Types of Rec Destinations

Recreation Destination	Number of Routes
Undeveloped Campsites	73
San Juan OHV Trail System	27
Undeveloped Parking Areas	13
Scenic Overlooks	6
Kiosks	5
Trailheads	5
Developed Campgrounds	4
Day-Use Areas	4
Interpretive Sites	4

Recreation Destination	Number of Routes
Developed Parking Areas	4
Trails	4

Table 3.20: Number of Evaluated Routes Providing Primary Access to Recreation Destinations

		Alt. A	Alt. B		Alt. C		Alt. D	
	Designation	Routes	Routes	Difference in Routes	Routes	Difference in Routes	Routes	Difference in Routes
Recreation Destinations (94 routes; 32% of evaluated network)	OHV-Open	94	61	-33	79	-15	90	-4
	OHV-Closed	0	33	33	15	15	4	4

Alternative A (No Action)

Most OHV-open routes in the 2008 RMP travel network provide access for a variety of recreation activities. About one-third of the routes in the TMA provide primary access to recreation destinations, approximately 75% of which access undeveloped campsites and another 30% are part of, or projected to be part of, the San Juan OHV Trail System. The route network also accesses a number of world-class scenic overlooks, drawing visitors interested in sightseeing, scenic driving, photography, and related recreation activities. Alternative A offers the most access to and widest variety of recreation activities. However, with all routes in this alternative open to OHV use, it also has the most potential for perpetuating conflicts of use between motorized and non-motorized recreation users and authorized users, route-finding confusion (and therefore less pleasant user experiences), and route proliferation. Impacts from ongoing OHV use would reflect a continuation of current management.

Alternative B

Compared to Alternative A, the Alternative B travel network proposes to designate approximately 50% of the routes in the travel network currently used for jeeping/four-wheeling as OHV-open, including 139.5 miles of unmaintained routes (which constitute 65% of the Alternative B network). It also proposes designating as OHV-open between 50-70% of the routes that currently provide access for scenic driving, camping, and hiking activities and designating as OHV-closed the remaining 30-50%. Routes providing access for photography would be subject to similar reductions, though the vast majority of routes accessing popular photography areas along the canyon rims would still be designated open. Alternative B would designate as OHV-open about 65% of the routes that provide access to recreation destinations. These decreases in OHV-open designations would result in less overall OHV access for recreation activities as compared to Alternative A. With OHV-based access to dispersed campsites affected the most; however, users would still have OHV access to camping throughout most of the TMA via the routes that remain OHV-open. Alternative B would not reduce access to the scenic overlooks, which are the most popular facilities in TMA, and would still provide access to San Juan OHV Trail System routes and would provide substantial access for camping, hiking, and other recreation activities in the area while limiting conflicts of use, confusion, and route proliferation. Overall, Alternative B would reduce the route mileage available for OHV use but has the highest likelihood among alternatives for reducing adverse effects on nonmotorized recreation user opportunities and experiences.

Alternative C

Alternative C would designate as OHV-open approximately 70% of the routes associated with jeeping/four-wheeling, including 168.6 miles of unmaintained routes (which constitute 79% of the Alternative C network). Alternative C also proposes to designate as OHV-open 70-85% of the routes associated with scenic driving, camping, and other popular recreation activities. Additionally, Alternative C would designate as OHV-open approximately 85% of the routes currently providing access to various recreation destinations, the majority of which are dispersed campsites.

Overall, the approximately 25 miles of routes proposed as OHV-closed in this alternative were not found on the ground (though they were designated OHV-open in the 2008 RMP), indicating they have not been receiving OHV use. The Alternative C network would result in fewer conflicts between motorized and non-motorized users, less route-finding confusion, and less route proliferation than in Alternative A while still providing OHV-based access to the most popular recreation opportunities and facilities as well as the majority of known dispersed campsites.

Alternative D

The Alternative D travel network is similar to Alternative A in the level of OHV-based access it provides for recreation use. It would designate as OHV-open approximately 85% of the routes associated with jeeping/four-wheeling, including 188.1 miles of unmaintained routes (which constitute 88% of the Alternative D network) and 85-100% of the routes associated with other popular recreation activities such as scenic driving, camping, and hiking. Of the routes in the Alternative A travel network accessing recreation destinations, Alternative D proposes to designate 4 of those routes as OHV-closed.

Overall, the approximately 25 miles of routes proposed as OHV-closed in this alternative were not found on the ground (though they were designated OHV-open in the 2008 RMP), indicating they have not been receiving OHV use. While Alternative D provides the most recreation access of any of the action network alternatives, these proposed designations may create more potential for user conflicts, route-finding confusion, and route proliferation.

3.3.2 Cumulative Effects for Key Issue 2

The geographic scope of cumulative effects analysis for Key Issue 2 includes the entire Moab FO area. Past plans and actions within the TMA include the 2002 Canyon Rims Recreation Area Management Plan and the 2008 RMP. Other past, present, and reasonably foreseeable actions within the analysis area include the paving of the Anticline Road; State, County, and private roadway development; expansion or re-routing of the San Juan OHV Trail System; livestock grazing; oil and gas development; mineral material site development; mining; OHV travel; and OHV-related human uses such as vehicle exploring, hunting, horseback riding, hiking, camping, geocaching, and wildlife watching (see Table 3.17: Number of Evaluated Routes Providing Access for Various Recreation Activities above). Direct and indirect effects to recreation include conflicts between recreation users that can result in reduced quality of recreation opportunities or experiences. Alternatives B-D would reduce user conflicts to various extents by closing some routes and limiting some routes to administrative use only, providing for recreation experiences

for nonmotorized users, in effect providing for some level of incremental reduction in recreation user conflicts throughout the cumulative effects analysis area when added to the past, present, and reasonably foreseeable actions, plans, and projects noted above. The Alternative A route network would not address known recreation user conflicts, and navigational issues within the TMA, potentially allowing other user conflicts within the cumulative effects analysis area to perpetuate.

4. CONSULTATION AND COORDINATION

4.1 List of Preparers

4.1.1 Bureau of Land Management

The following staff assisted with assembling this EA and the TMP Implementation Guide (Appendix L) it supports. Additional staff contributed to the route evaluation that supports the EA and Implementation Guide.

Name	Title
Gabe Bissonette	Ecologist, Moab Field Office
Jordan Davis	Range Management Specialist, Moab Field Office
Nicollee Gaddis-Wyatt	Field Manager, Moab Field Office
Lori Hunsaker	Archaeologist, Moab Field Office
Ashley Losey	Archaeologist, Moab Field Office
Todd Murdock	Recreation Planner and Project Lead, Moab Field Office
Dave Pals	Assistant Field Manager and Geologist, Moab Field Office
Pam Riddle	Wildlife Biologist, Moab Field Office
Bill Stevens	Recreation Planner/Economist, Moab Field Office
Katie Stevens	Recreation Planner and Project Lead, Moab Field Office
Lisa Wilkolak	Realty Specialist, Moab Field Office
David Williams	Range Management Specialist, Moab Field Office

4.1.2 Interdisciplinary Team Involvement and Cooperators

BLM resource and resource use disciplines represented on the IDT during route evaluation included: cultural resources, soils, water quality, riparian and wetlands, geology and minerals, paleontology, GIS, hydrology, law enforcement, natural resources, outdoor recreation planning, public health and safety, minerals, native vegetation and rangeland management, noxious weeds and invasive species, lands and realty, and environmental planning and NEPA. Cooperating Agencies involved with this project included San Juan County, the Utah School and Institutional Trust Lands Administration (SITLA), and the State of Utah Public Lands Policy Coordinating Office (PLPCO). After evaluation, these cooperators reviewed the preliminary alternative travel route networks and provided feedback on the preliminary route designations and the draft alternative route networks.

4.1.3 Advanced Resource Solutions, Inc. (ARS)

The following contractor staff also assisted with developing the TMP and EA

Name	Title
Tom Folks	Travel Management Planner
Cameron Gale	Travel Management Planner/Writer
Dennis Gale	Travel Management Planner/Writer

Name	Title
Derek Givens	Travel Management Planner/GIS Specialist
Les Weeks	Company Owner

4.2 Public Review

Public scoping occurred from August 5 – September 5, 2019, and was intended to solicit input from the public on the issues, impacts, and potential alternatives that could be addressed in this EA, and scoping comments were considered and used in its preparation (see section 1.6). See the scoping report for a summary of public scoping. The draft alternative maps were posted online on March 9, 2020, baseline LWC reports were posted on April 17, 2020, and the scoping report was posted on May 1, 2020. A 30-day public comment period will be held from October 13, 2020 – November 13, 2020 in accordance with the 2017 Settlement Agreement. Route evaluation reports were posted to the internet for public review in accordance with the 2017 Settlement Agreement on April 18, 2020.

4.3 Consultation

4.3.1 National Historic Preservation Act (NHPA) Section 106

The BLM conducted NHPA consultation in accordance with the 2018 Travel PA. These consultation efforts included seeking input from Indian tribes and consulting parties regarding BLM's Class I Inventory, cultural resource potential models, the Area of Potential Effect, the need to conduct additional cultural resource surveys, and BLM's finding of effect. BLM's consultation efforts are documented in Appendix G.

Tribal Consultation

Tribal consultation was primarily initiated through the NHPA Section 106 consultation process, described at 36 CFR 800 and directed by the Travel PA. That process typically concerns itself with cultural resources; however, the BLM also encouraged tribes to share concerns they may have regarding any resources and provided information as to how to find the BLM's NEPA documents through ePlanning so that tribes could access information for all resources within the TMA.

On June 6, 2019, the BLM invited 61 leaders and representatives from 29 tribes that have ancestral and historic ties to the TMA area to participate in consultation regarding the Canyon Rims TMP. The tribes were the Colorado River Indian Tribes, the Confederated Tribes of the Goshute, the Kaibab Band of Paiute Indians, the Navajo Nation, the Northwest Band of Shoshone Nation, the Ohkay Owingeh, the Paiute Indian Tribe of Utah, the Pueblo of Acoma, the Pueblo of Cochiti, the Pueblo of Isleta, the Pueblo of Jemez, the Pueblo of Kewa, the Pueblo of Laguna, the Pueblo of Nambe, the Pueblo of Picuris, the Pueblo of Pojoaque, the Pueblo of San Felipe, the Pueblo of San Ildefonso, the Pueblo of Sandia, the Pueblo of Santa Ana, the Pueblo of Santa Clara, the Pueblo of Tesuque, the Pueblo of Zia, the Pueblo of Zuni, the Southern Ute Tribe, the Southern Ute Tribe, the Hopi Tribe, the Uintah and Ouray Ute Tribe, and the Ute Mountain Ute Tribe, including the White Mesa Community.

The initial invitation included a description of the task at hand, background as to why BLM is creating the TMP, an overview of the TMA, and maps. The invitation also directed recipients to a number of online resources that provide further information on the TMA. Following the BLM's invitation, the Pueblo of Ysleta del Sur informed the BLM that they did not wish to participate. The BLM included the remaining 28 tribes in all consultation correspondence throughout the development of the Canyon Rims TMP.

The BLM next reached out to the 28 tribes on July 23, 2019 for input and information to help define the NHPA Section 106 Area of Potential Effects. The letter again provided background on the TMP and sought any information or concerns the tribes might have regarding impacts to resources as a result of route designation in the TMA, particularly concerns regarding cultural resources. The BLM received input from one tribe.

On August 5, 2020, BLM sent a letter to the 28 tribes outlining the identification efforts that have been completed to identify effects to historic properties and requesting any additional information that the tribes may wish to share. In addition, the BLM also sought comments regarding proposed site eligibility determinations and a proposed finding of "no adverse effect" as defined by 36 CFR 800.5, and the BLM received comments regarding identification efforts and proposed finding of effect from six tribes.

On March 8, 2021, BLM sent a letter to the 28 tribes making a final finding of an adverse effect, requesting comments on a draft HPTP, and a determination that no additional Class II survey would be necessary for this undertaking. Five tribes concurred with BLM's determinations and requested to be informed if conditions changed.

Other Consulting Parties

The NHPA and the Travel PA directs the BLM to invite parties who may have a demonstrated interest in the undertaking to participate in consultation. On June 6, 2019, the BLM invited nine parties to participate in the Section 106 process as consulting parties. These parties were the Utah Public Lands Policy Coordination Office, San Juan County, San Juan County Historical Society, Utah School Institutional Trust Lands Administration, Southern Utah Wilderness Alliance, United Four Wheel Drive Association, Utah Professional Archaeological Council, Utah Rock Art Research Association, and Utah Statewide Archaeological Society. All nine indicated that they wished to participate as consulting parities.

On July 23, 2019, the BLM sought input and information to help define the Section 106 Area of Potential Effects. The letter again provided background on the TMP and sought any information or concerns that the parties might have with defining the Area of Potential Effects in a manner consistent with the direction defined by the Travel PA. The BLM received input from six parties.

The BLM next reached out to consulting parties on August 5, 2020 to request their input on identification efforts, including proposed eligibility determinations, and a proposed finding of effect. The BLM received input from 4 parties.

On March 8, 2021, BLM sent a letter to the nine consulting parties making a final finding of an adverse effect, requesting comments on a draft HPTP, and a determination that no additional Class II survey would be necessary for this undertaking. Two parties responded and concurred with BLM's determinations.

The Utah State Historic Preservation Office

On December 19, 2018, the BLM initiated consultation with the Utah State Historic Preservation Office (SHPO) and requested input with our plan to involve the public. The SHPO responded on December 20, 2018 and concurred with BLM's plan to involve the public.

On November 30, 2020, the BLM requesting comment on our identification efforts (including determinations of eligibility for sites revisited and identified during the identification efforts) and a finding of an adverse effect. The SHPO concurred with our eligibility determinations and our finding of effect in a letter dated December 8, 2020.

On April 12, 2021, the BLM requested comment on the HPTP, and our determination that no additional Class II survey would be necessary for this undertaking. On April 15, 2021, the Utah SHPO concurred that implementation of the measures outlined in the HPTP would avoid minimize and mitigate effects to sites 42SA16867, 28166, and 32489 and concurred that no additional survey would be required for the Canyon Rims TMP.

4.3.2 Endangered Species Act Section 7

The BLM has had ongoing coordination and communication with the USFWS throughout the development of this TMP. Formal consultation under ESA Section 7 with the USFWS commenced in December 2020. The BLM determined that this TMP is likely to adversely affect the Mexican spotted owl (*Strix occidentalis lucida*) and the Jones cycladenia (*Cycladenia humilis* var. *jonesii*).

Additionally, the BLM determined that the TMP is not likely to adversely affect the Navajo sedge (*Carex specuicola*), Colorado pikeminnow (*Ptychochelius lucius*), bonytail chub (*Gila elegans*), humpback chub (*Gila cypha*), and razorback sucker (*Xyrauchen texanus)* (collectively referred to as Colorado River fishes), will have no effect on the Southwestern willow flycatcher (*Empidonax traillii extimus*) and the yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and is not likely to jeopardize the continued existence of the California condor.

Conservation Measures to minimize TMP effects on federally listed species and their habitats within the TMA were developed during consultation with the Service and will be implemented by the TMP.

The USFWS concurred with the BLM's determination of not likely to adversely affect the Navajo sedge and the Colorado River fishes and not likely to jeopardize the continued existence of the California condor. The USFWS also acknowledged the BLM's no effect determination for the Southwestern willow flycatcher and the yellow-billed cuckoo.

The USFWS provided a Biological Opinion on May 3, 2021 that evaluated impacts to the Mexican spotted owl and Jones cycladenia from TMP implementation. The USFWS concluded that the TMP is not likely to jeopardize the continued existence of the Mexican spotted owl and Jones cycladenia.

APPENDIX A. REFERENCES

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APPENDIX B. ABBREVIATIONS AND ACRONYMS

ACEC	Area of critical environmental concern
ATV	All-terrain vehicle
BLM	Bureau of Land Management
BMP	Best management practice
CFR	Code of Federal Regulations
CLO	Cornell Lab of Ornithology
CX	Categorical exclusion
DNA	Determination of NEPA adequacy
DOI	Department of the Interior
DR	Decision record
DWR	Utah Division of Wildlife Resources
ECOS	Environmental Conservation Online System
EIS	Environmental impact statement
FONSI	Finding of no significant impact
GPO	Government Publishing Office
IDT	Interdisciplinary team
LWC	Land with wilderness characteristics
MBTA	Migratory Bird Treaty Act
Moab FO	Moab Field Office
NEPA	National Environmental Policy Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NSE	NatureServe Explorer
OHV	Off-highway vehicle
ORV	Outstandingly remarkable values
PLPCO	State of Utah Public Lands Policy Coordinating Office
RMP	Resource management plan
ROW	Right-of-way
SITLA	Utah School and Institutional Trust Lands Administration
SRMA	Special recreation management area
SRP	Special recreation permit
SSS	Special status species
TCP	Traditional cultural property
TMA	Travel management area
TMP	Travel Management Plan
UDWR	Utah Division of Wildlife Resources
USFWS	U.S. Fish and Wildlife Service
UTV	Utility terrain vehicle

APPENDIX C. ADDITIONAL POLICIES, STATUTES, AND GUIDANCE

In addition to the management plans and policies listed in section 1.5, this project also considers the following:

- 43 CFR Part 8340: Off-Road Vehicles
- The BLM's 2001 *National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands*
- 43 CFR 8364.1: Closures and Restrictions
- BLM's 2008 *National Environmental Policy Act Handbook* (H-1790-1).
- BLM's 2012 *Travel and Transportation Handbook* (H-8342)
- Federal Land Policy and Management Act (FLPMA)
- 2017 Settlement Agreement

Though the BLM is not required to adhere to county plans, the IDT took into consideration the San Juan County RMP and Travel Plan.

APPENDIX D. SCOPING DETAILS

Scoping Overview

Internal and external scoping were used to identify issues related to travel management in the TMA. Internal scoping involved obtaining input from BLM staff. Some internal scoping occurred via a BLM IDT of resource specialists analyzing potential consequences of a range of travel management alternatives during the route evaluation process and during meetings held throughout the development of this TMP EA. More detail on the route evaluation process can be found in section 2.1. External scoping involved getting comments from the public and outside agencies and groups. Details on public scoping can be found in the Canyon Rims Travel Management Plan Scoping Report, available on this project's ePlanning page.

Various scoping issues were identified, but only key issues receive analysis in the EA.

Scoping Issues Analyzed in EA

Route and travel-related issues that are analyzed in the EA fall under the underlined topic headings listed below and are separated by semi-colons. In general, issues are tied to potential impacts of individual route designations. These issues address the 43 CFR 8342.1 designation criteria listed in Table 1.3 of this EA.

- Minimizing travel network adverse environmental effects on the TMA's natural and human environment while maintaining or enhancing access for resource management activities:
    - Cultural resources: Site protection; concentration/increased use on routes when other routes are closed and potential effects based on such increased use; access (related to research/inventory); public overuse; potential for illegal collection and/or vandalism of artifacts/sites; maintenance of routes through sites; ability to carry out Euro-historic events/uses (e.g., reenactments); tribal group access to federal/tribal lands; public access to tribal areas; tribal groups not being restricted access to federal lands and/or tribal lands; tribal groups concerned about public access to significant tribal use areas
    - Lands with Wilderness Characteristics: Motorized route designations' effect on presence, absence, and nature of wilderness characteristics; potential for illegal motorized encroachment in special management areas; ability to access wilderness characteristics areas in general; motorized use effects on natural soundscapes; elimination of roads may have impact on LWC boundaries.
    - Soils, Native Vegetation (Including T&E Species), and Weeds and Invasive Species: Route network/travel related vectors' (recreation, vehicle use, etc.) contribution to introduction/spread of noxious weeds; native species displacement; ecosystem function disruption; agency access needs for monitoring/treatment activities; nuisance for recreation; range and wildlife habitat viability impacts; impacts of travel route designations on native vegetation

communities, introduction and spread of invasive weeds, and fire regimes and their management; route network-related illegal plant collection; direct impacts from public motorized recreation (including illegal off-road travel); public access for viewing/photographing; ecosystem integrity and value of native plants (pollinators, etc.)

- Special Designation Areas: Maintain relevant and important values of the Highway 279 Corridor/Shafer Basin/Long Canyon ACEC; maintain scenic quality of Wild and Scenic River portion of Colorado River that runs through the TMA; maintain integrity of the Old Spanish National Historic Trail
- Special Status Species Animals: see Wildlife
- Special Status Species Plants: see Soils, Native Vegetation, Weeds and Invasive Species, and Soil Stability
- Visual Resource Management (VRM): Impact of travel routes on visual resources
- Water Resources: Rivers and Streams, Riparian Areas and Floodplains, and Water Quality: Travel-related erosion's impacts on water quality and waterway appearance; salinity from natural sources, i.e., saline soils; OHV travel in washes and small streams impacting stability and resulting in headcutting, particularly in areas of fine soils; administrative access to monitoring sites; route-related adverse impacts to soils via erosion/compaction (especially primitive routes) and contributions to salinity; soil impacts caused by lack of route construction standards; non-hardened routes crossing ephemeral and perennial channels potentially contributing to stream sedimentation; difficulty of achieving reclamation/maintenance objectives because of certain soil types; public desire for route paving, more frequent maintenance; excessive, fugitive dust from traffic
- Wildlife: Fish (T&E and BLM Sensitive Species): Potential for route-related habitat loss/fragmentation/degradation and disturbance of animals, particularly Threatened and Endangered and BLM sensitive species; access to public lands for consumptive and non-consumptive use of wildlife resources; access contributing to species loss; public concern over potential loss of access for motorized game retrieval; water quality's benefits to habitats
- Wildlife: General Wildlife: Potential for loss, fragmentation, or degradation of habitat; potential for disturbance of animals (mule deer, elk, desert bighorn sheep, raptors, antelope, migratory birds, pollinators, prairie dogs, etc.) from routes and traffic (O&G, recreation, administrative); concern about the availability of access to public lands to enjoy the benefits of viewing/hunting big game, small game, upland species, as well as trapping
- Wildlife: Migratory Birds, Including Raptors: Potential continued and new impacts to bird & raptors
- Wildlife: Special Status Species Animals: Potential for route-related habitat loss, fragmentation, and degradation; potential disturbance of animals, particularly Threatened and Endangered and BLM sensitive species

- Providing for recreation opportunities and experiences:

- Recreation: Volume of use has exploded; route proliferation; greater potential for activity conflicts caused by greater concentration of users on remaining routes when limits/closures are applied to routes; ability of public to access lands for recreation; non-motorized vs. motorized perspectives on experience opportunities; BLM ability to provide variety of recreation experiences (including expansion of opportunities) tied to varying route types, maintain SRP access, provide opportunities for non-motorized activities without conflict with motorized use, reduce conflicts among motorized users, and maintain existing recreation access points; public ignoring sign system

Issues Identified but Eliminated from Detailed Analysis

Route/travel-related issues that were identified but eliminated from detailed analysis in the EA fall under the topic headings listed below. Additional issues eliminated from detailed analysis are found in Appendix E: Interdisciplinary Team Checklist and received either an NP (Not Present) or NI (Not Impacted) determination.

- Revised Statute (RS) 2477: How will the BLM address Revised Statute (RS) 2477 claims within the TMA?
    - This EA and planning effort does not adjudicate, analyze, or otherwise determine the validity of claimed rights-of-way. Resolution of RS 2477 assertions is a legal issue beyond the scope of this EA and planning effort. Nothing in this document has legal effect on or alters in any way the legal rights the state and counties have to assert RS 2477 rights.

APPENDIX E. INTERDISCIPLINARY TEAM CHECKLIST

DETERMINATION OF STAFF: ***(Choose one of the following abbreviated options for the left column)***
NP = not present in the area impacted by the proposed or alternative actions
NI = present, but not affected to a degree that detailed analysis is required
PI = present with potential for relevant impact that need to be analyzed in detail in the EA. The Rationale column may include NI and NP discussions.

The following elements are not present in the Moab Field Office and have been removed from the checklist: Farmlands (Prime or Unique), Wild Horses and Burros.

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Air Quality & Greenhouse Gas Emissions	On-route travel has the potential to emit criteria air pollutants (NOx, SOx, CO, PM10, and PM2.5) and greenhouse gases (CO2, CH4, and N2O). Pollutants come from tailpipe emissions and fugitive dust from vehicle disturbance and wind erosion. Greenhouse gas emissions primarily come from vehicle tailpipes. Air pollutant and greenhouse gas emissions from the proposed alternatives are anticipated to be equal to or less than current emissions since the number of miles open for travel will be the same or less than what is currently open and no increase in visitors is expected, as a result of this action. An overall increase in visitors in the entire Field Office area is expected as that has been the trend in recent decades, however that increase in visitation is not directly or indirectly tied to this action. The BLM Utah 2018 Air Monitoring Report (https://go.usa.gov/xmDkx) identifies air quality within the Moab Field office as good. The area is classified as attainment or unclassified for all National Ambient Air Quality Standard pollutants. As emissions are not expected to increase as a result of this action, it is unlikely that the Proposed Action would cause or contribute to an exceedance of air quality standards, or cause or contribute to local air quality issues. Therefore, air quality and greenhouse gases will not be discussed further in this EA.	Erik Vernon	6/5/2019
PI	Areas of Critical Environmental Concern	Shafer Basin is an ACEC.	Katie Stevens	9/21/2018
NP	BLM Natural Areas	See 2008 RMP. No BLM Natural Areas exist in the TMA.	Bill Stevens	10/19/2018
PI	Cultural Resources	An assessment of impacts to cultural resources was completed to determine the nature and extent of effects to cultural resources anticipated from implementing the proposed action. Significant cultural resources are here identified using the criteria defined by the National Historic Preservation Act and its implementing regulations, the criteria for evaluating the significance of cultural resources are set forth in 36 CFR 60.4. There are cultural resources that will potentially be impacted by the proposed project.	Ashley Losey	10/26/2018
NI	Environmental Justice	EJ populations identified in planning area (assumed to be Grand and San Juan Counties. See	Bill Stevens	10/19/2018

Determination	Resource/Issue	Rationale for Determination	Signature	Date
		2016 MLP. No reason to expect disproportionately adverse impacts on EJ populations from plan alternatives.		
NI	Fire/Fuels Management	No effect anticipated from travel management.	Josh Relph	3/11/2019
PI	Floodplains	Impacts to floodplains primarily consist of loss of vegetation and geomorphic changes to bank angle, bank stability, increasing channel width, and in some cases creating artificial flow channels at or near route/stream intersections. Floodplain connectivity may be impaired due to increased erosion and channel downcutting resulting from accelerated flood velocities linked to loss of vegetation or soil compaction.	Gabe Bissonette	3/25/2019
NI	Geology/Mineral Resources/Energy Production	Subject to valid existing rights. See 2008 RMP. Access for mineral development activities would be authorized under a separate process.	Dave Pals	6/26/2020
PI	Invasive Species/Noxious Weeds	Roadsides offer disturbance for invasive species to establish. Would provide access to treat known noxious weed infestations.	Jordan Davis, Dave Williams	2/11/2019
NI	Lands/Access	Subject to valid, existing rights. None of the alternatives will result in the loss of reasonable access to SITLA or other landowner parcels.	Lisa Wilkolak	6/26/2020
PI	Lands with Wilderness Characteristics	Large acreages in TMA identified as possessing wilderness characteristics. Use of designated routes into these areas (not boundaries) could negatively impact outstanding opportunities for solitude and/or primitive and unconfined recreation. None managed in RMP to specifically protect LWC.	Bill Stevens	10/19/2018
NI	Livestock Grazing	It is expected that the limited or closed routes would revegetate and produce more forage. It is not known what the improvement to the forage would be or if it would be enough to change an authorization to allow for more use or not. It would be improbable to analyze a figure that could be meaningfully analyzed. The advent of the TMP would still allow for use of the routes by the BLM and the range user for management of the grazing allotments. They would be limited or open to range improvements which would still allow for maintenance of range improvements. Because of the potential improvements to forage not being meaningfully analyzed and the range user still being allowed access to range improvements it is not expected to impact the livestock grazing on the allotment.	Jordan Davis, Dave Williams	2/11/2019
PI	Migratory Birds	Potential continued and new impacts to bird & raptors. Will provide potential species, recommended spatial & seasonal buffers.	Pam Riddle	2/12/2019
NI	Native American Religious Concerns	Tribal consultation took place as part of BLM's National Historic Preservation Act, Section 106 process.	Lori Hunsaker	2/13/2020
NI	Paleontology	A reasonable amount of invertabrate fossils and plants may be collected in accordance with the 2008 Moab Resource Management Plan. Vertebrate fossils should not be disturbed. If paleontological resources are encountered during surface disturbing activities, the activity should stop at the site and Moab BLM notified.	Dave Pals	3/13/2019

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Plants: Threatened, Endangered, Candidate, or Special Status Species	Geological formations associated with two federally threatened plant species are found within the TMA: Jones cycladenia (*Cycladenia humilis* var. *jonesii*) and Navajo sedge (*Carex specuicola*). In 2011 (updated 2014) a preliminary model for this species was developed (Sansom and Elliott. 2012); ground-truthing is ongoing. This model predicts the "potential for new occurrences to be identified" and is based solely on specific elevations within approximately one mile from the Chinle, Cutler, and Summerville Formations. This model delineates approximately 58,000 acres occurring at particular elevations within one mile from the Chinle, Cutler, and Summerville Formations within the TMA. Due to exacting soil requirements much of these areas are not expected to provide suitable soil conditions. There is one known occurrence of this species within the TMA, located on a very steep, inaccessible slope where motorized and mechanized travel is not possible. Navajo sedge is only known to occur on the Navajo Nation, within Coconino County, Arizona and in the Natural Bridges area of San Juan County, Utah over 30 miles south of the TMA. Occupied habitats consist of hanging garden areas of piñon-juniper woodlands. It occurs primarily on steep slopes between 4,200-7,600 feet in elevation (USFWS 2014), often in areas of aeolian sandstone cliffs, and requires moist soils from seeps or springs. As of 2014, a total of 57 populations of the species were known to exist. Travel on designated routes pose little to no risk to Navajo sedge populations due to the inaccessibility of hanging gardens, the lack of route designations in or near hanging gardens and the lack of known plants in the TMA. Travel network alternatives do not propose new or additional routes within the TMA; potential for occurrence of listed plants on existing travel routes in the TMA is not expected. All action alternative will not impact Jones cycladenia and Navajo sedge or habitat potential to a degree that detailed analysis is required.	Pam Riddle	2/25/2020
NI	Rangeland Health Standards	The rangeland wouldn't be affected as the routes leading to reservoirs etc. would continue allow administrative access for the maintenance and use of the range improvements and this would allow the permittee to use them for the care and management of thier livestock. It almost seems like the rangeland could be connected with the Livestock Grazing, vegetation, and soils. This might be redundant with those resources looking at the specifics.	Jordan Davis, Dave Williams	2/11/2019
PI	Recreation	Recreation occurs throughout the TMA.	Katie Stevens	9/21/2018
NI	Socioeconomics	Very minor effect on overall planning area economy (see Appendix F for more information)	Bill Stevens	10/19/2018

Determination	Resource/Issue	Rationale for Determination	Signature	Date
PI	Soils	How would the changes in the TMP affect the erodible soils? How would the TMP reduce soil erosion either by wind or water?	Jordan Davis, Dave Williams	2/11/2019
PI	Vegetation, Excluding Designated/Special Status Species	How would the changes in the TMP affect the vegetation? How would the TMP be expected to impact vegetation on the expected route changes?	Jordan Davis, Dave Williams	2/11/2019
PI	Visual Resources	The non-designation of routes would enhance visual resources.	Katie Stevens	9/21/2018
NP	Wastes (Hazardous or Solid)		Dave Pals	3/13/2019
PI	Water Resources/Quality (drinking/surface/ground)	Subject to valid existing rights. See 2008 RMP.	Dave Pals	3/13/2019
PI	Wetland/Riparian Zones	Use of routes located in riparian areas and drainage bottoms can contribute to the loss of riparian vegetation, degrade stream banks, accelerate flood velocity, lead to increased erosion, and impair aquatic habitats (i.e. water quality/sedimentation/physical disturbance).	Gabe Bissonette	3/25/2019
PI	Wild and Scenic Rivers	A Wild and Scenic portion of the Colorado River flows through the TMA (Shafer Basin portion).	Bill Stevens	10/19/2018
NP	Wilderness/WSAs	No congressionally designated wilderness areas exist in the TMA. There are no WSAs in the TMA.	Bill Stevens	10/19/2018
PI	Wildlife: BLM Sensitive Species	• Bluehead sucker (*Catostomus discobolus*) • Burrowing owl (*Athene cunicularia*) • California condor - Experimental habitat • Ferruginous hawk (*Buteo regalis*) • Gunnison's prairie dog (*Cynomys gunnisoni*) • Kit fox (*Vulpes macrotis*) • Migratory bird habitat • Spotted bat (*Euderma maculatum*) • Townsend's big-eared bat (*Corynorhinus townsendii*)	Pam Riddle, Gabe Bissonette	3/25/2019
PI	Wildlife: General Wildlife and Fish	Analysis emphasis could be given to the following (based on RE data collected): • Desert bighorn sheep (*Ovis canadensis nelsoni*) • Golden eagle (*Aquila chrysaetos*) nests • Pronghorn (*Antilocapra americana*) • Raptors in general (including perch pole and nests) Conservation Agreement and UT DNR sensitive: • Bluehead sucker (*Catostomus discobolus*) • Flannelmouth sucker (*Catostomus latipinnis*) • Roundtail chub (*Gila robusta*)	Pam Riddle, Gabe Bissonette	3/25/2019
PI	Wildlife: Threatened, Endangered, Candidate, or Special Status Species	• Bonytail chub (*Gila elegans*) - Endangered • Colorado pikeminnow (*Ptychocheilus lucius*) - Endangered • Humpback chub (*Gila cypha*) - Endangered • Mexican spotted owl (*Strix occidentalis lucida*) - Threatened • Razorback sucker (*Xyrauchen texanus*) – Endangered • Southwestern Willow Flycatcher (*Empidonax traillii extimus*) - Endangered (Also, there are	Pam Riddle, Gabe Bissonette	3/25/2019

Determination	Resource/Issue	Rationale for Determination	Signature	Date
		only 2 short section of routes within .25 miles of suitable but marginal SWFL habitats that were unoccupied in 2008. This marginal habitat is nearby but continued use of the routes will not affect the habitat to a degree that detailed analysis is required.)		
NP	Woodlands/Forestry	The forests would not be affected as there is no gathering of woodland products within the Canyon Rims area. The Moab RMP designated it as an area not available to woodland products.	Jordan Davis, Dave Williams	2/11/2019

APPENDIX F. ESTIMATED ECONOMIC IMPACT

Estimated economic impact of route closures which may result from adoption of the Canyon Rims (Indian Creek) TMP

Assumptions for this analysis:

- Technical vehicle enthusiasts are primarily interested in recreation opportunities afforded by primitive routes.
- BLM adopts the most restrictive alternative (Alternative B) in the TMA, resulting in the closure of 35.4% of Class D roads.
- Overall visitation to the affected area continues at 2019 levels for dispersed recreation (i.e., excludes visitation only to the Needle and Anticline overlooks and campers at Windwhistle and Hatch campgrounds).
- If the above primitive roads were closed, users of those roads would not substitute other routes and instead would choose not to visit this TMA.
- The percentage of visitors using primitive roads have OHV activity as their primary or secondary reason for visiting the area in the same proportion as all other visitors to Moab BLM.
- Spending profiles for these visitors are similar to the overall spending profiles that the Moab BLM has developed for all recreation visitation to Moab BLM.

Based on the following very conservative assumptions, BLM estimates that approximately 448 visitor days would be "lost" to the overall Moab area economy. This represents 0.02% of the estimated 1,894,393 visitor days recreating on Moab BLM in 2019. Using IMPLAN economic impact software, this reduction in visitation would result in the following:

visitor days=448					
		Employment	*Labor Income*	*Value Added*	*Output*
Direct Effect	1.4		$10,270	$15,833	$26,799
Indirect Effect	0.1		$1,497	$2,690	$6,207
Induced Effect	1.1		$1,565	$3,212	$5,871
Total Effect	*2.5*		$13,332	$21,735	$38,877

Contrasting this with the impact on the local economy from *all* recreation on Moab BLM indicates how minor this impact would be:

visitor days=1,894,393				
	Employment	*Labor Income*	*Value Added*	*Output*
Direct Effect	1,716.0	$43,421,153	$66,950,466	$113,312,771
Indirect Effect	234.7	$6,331,770	$11,373,919	$26,246,354
Induced Effect	224.5	$6,612,616	$13,582,639	$24,818,160
Total Effect	2,175.2	$56,365,540	$91,907,025	$164,377,285

The assumptions of this analysis are very conservative; actual economic losses (if any) would likely be much less than shown above, should the authorized officer select Alternative D.

APPENDIX G. CONFORMANCE TO SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT THROUGH THE TRAVEL AND TRANSPORTATION PROGRAMMATIC AGREEMENT

Introduction:

The 2018 *Programmatic Agreement among the Advisory Council on Historic Preservation, the Bureau of Land Management – Utah, and the Utah State Historic Preservation Office Regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings* (Travel PA) was developed and signed to "establish greater clarity in how BLM-Utah's travel and transportation management undertakings should make "a reasonable and good faith" effort to identify historic and traditional cultural properties in accordance with 36 CFR 800.4(b)(1)." The Travel PA also establishes BLM-Utah's procedures towards comprehensively meeting its obligations under 36 CFR Part 800 to identify, evaluate, and resolve potential adverse effects to historic properties (including traditional cultural properties) for travel and transportation management undertakings. To illustrate BLM's adherence to the stipulations of the Travel PA, Table G.1 lists the requirements of the Travel PA and summarizes BLM's efforts to adhere to those requirements.

Table G.1: Stipulations of the Travel PA and the BLM's Actions to Adhere to those Requirements

Travel PA and the 2017 Settlement Agreement	Process for Completing these Requirements
Identifying Areas of Potential Effects (APEs) for OHV Route Designations - Travel PA Stipulation III.A.1.b. Under this stipulation the BLM must invite and seek consulting party (including the SHPO) input when defining the width of the APE and seek any additional cultural resources information a consulting party wishes to share.	Pursuant to this Stipulation the BLM initiated consultation with the SHPO on December 19, 2018 and with Indian tribes and other consulting parties on June 6, 2019. The BLM defined the APE in accordance with Stipulation III.A.1.b. of the Travel PA. An "indirect APE" was defined as ¼ mile from the centerline of each route and a "direct APE" was defined as 15-meters on either side of each route. BLM sought comments from Tribes and other consulting parties July 23, 2019 regarding this APE determination.
Travel PA Stipulation III.A.2. Literature Reviews and Cultural Resource Potential Maps for Open OHV Area and OHV Route Designations Under this stipulation the BLM must complete and/or update a literature review and cultural resource potential map. BLM must also invite and seek consulting party comments regarding these identification efforts.	Pursuant to this Stipulation the BLM initiated and consulted on a Class I – Existing Information Inventory (Class I inventory) for the Moab Field Office in 2016. BLM completed additional literature reviews and summarized these and other identification efforts in a letter to Indian tribes and other consulting parties on August 5, 2020, which sought their comments regarding these efforts.
Travel PA Stipulation III.A.4.b Class III Surveys for OHV Route Designations Prior to approving OHV route designations, BLM will complete Class III surveys within all routes or portions of routes that are located within a cultural resource potential map's	Pursuant to this Stipulation BLM completed Class III and Class II surveys on routes and portions of routes located in areas BLM identified as having a high cultural resource potential. Areas of medium and low potential were also surveyed.

Travel PA and the 2017 Settlement Agreement	Process for Completing these Requirements
identification of a high potential cultural resource area. **2017 Settlement Agreement Stipulations 24 (b)(ii) and (c), – Class III survey in certain ACECs and Class III surveys in high potential areas** Prior to approving a TMP within certain ACECs the BLM must conduct Class III survey along all routes or portions of routes that are designated as open. The 2017 Settlement Agreement also requires Class III survey along all routes or portions of routes that are located in areas of high cultural resource potential that the BLM has identified in a Class I cultural resource inventory. ***Travel PA Stipulation IV.D. Stipulation Adverse Effects (36 CFR 800.5)*** Under this stipulation, the BLM must invite and seek consulting party input regarding BLM-Utah's finding of adverse effect.	The results of the Class III survey and BLM's proposed finding of no adverse effect were shared with Indian tribes and consulting parties through a letter dated August 5, 2020. After consideration of tribal and consulting party comments, BLM submitted the Class III survey report, site revisit reports and literature review (with a finding of an adverse effect) to SHPO on November 3, 2020. SHPO concurred with BLM's eligibility determinations and finding of effect on December 8, 2020. BLM consulted on the revised finding of effect with Indian tribes and other consulting parties on March 8, 2021.
Travel PA Stipulation III.A. 3. Site Revisits for Open OHV Areas and OHV Route Designations Site revisits serve as a component of BLM's efforts to identify historic properties for undertakings that would designate OHV routes.	Pursuant to this Stipulation, BLM conducted site revisits between 2017 and 2020. BLM sought comments on this identification effort from Indian tribes and other consulting parties on August 5, 2020. Site revisit documentation was submitted to the SHPO on November 30, 2020.
Travel PA Stipulation III.B.1 Determining the Need for Phased Class II Surveys for Travel Management Plans This stipulation requires that the BLM invite and seek consulting party input regarding the need to conduct additional cultural resource surveys after the TMP has been approved.	The BLM determined that no additional Class II survey would be necessary prior to the approval of the Canyon Rims TMP. BLM consulted with Indian tribes and other consulting parties regarding this on March 8, 2021. This determination was sent to the SHPO on April 12. 2021. The SHPO concurred with this determination on April 15, 2021.
Travel PA Stipulation V. Resolution of Adverse Effects Through Historic Property Treatment Plans BLM's resolution of adverse effects from the approval of the TMP are to be accomplished through the development of Historic Properties Treatment Plans (HPTP). BLM must provide an opportunity for SHPO, Indian tribes and consulting parties an opportunity to provide input on the HPTP.	BLM sought comments on a draft HPTP from Indian tribes and consulting parties on March 8, 2021. BLM sought comments from the Utah SHPO on April 12, 2021 and on April 15, 2021 the Utah SHPO concurred that implementation of the Plan would minimize and mitigate possible effects to site 42SA16867, 28166, 32489.

APPENDIX H. ROUTE REPORTS

Following completion of the travel route inventory and adjustments to existing BLM GIS data, a BLM IDT met for several week-long planning sessions to systematically review and evaluate each of the inventoried travel routes. During route evaluation, the BLM IDT used the ARS Route Evaluation software and GIS to systematically review, discuss, and document each route's location, physical characteristics, current management, operation and maintenance, authorized and permitted uses, public uses, associated biomes, all known natural and cultural resources, proximity to resources of concern, specially designated areas, and resource issues. Each intensive evaluation session included ongoing interactive IDT and Cooperator discussions of each route's resource and resource use concerns, as well as any route-specific public scoping information and Cooperator input available at the time of the evaluation process.

For each route, the IDT also considered and addressed the 43 CFR 8342.1 Designation Criteria, selecting applicable rationale demonstrating how the route would minimize impacts for each of the route's preliminary alternative designations. The process resulted in extremely thorough data capture, produced a preliminary range of reasonable designation alternatives for each route based on the alternative themes, and created a complete record of the process as documented in the route reports. This initial route evaluation process occurred over two weeks.

The full collection of route reports is available on the BLM's ePlanning site. Route reports provide a record of the BLM Identification Team (IDT) evaluation of each route identified during the route inventory. The header of each page of a route report displays the number that was used to identify the route during evaluation (e.g., D3041). The number placed on published maps and used on route signs may not be the same. Each route report includes three sections: "General Background," "Evaluation Information," and "Designation Alternatives."

General Background

The first part of the "General Background" section of a route report shows the route's evaluation session date (e.g., 8/30/2018), the name of the session's contracted facilitator (in this case, planners working for BLM's contractor), and the BLM resource specialists (biologists, archaeologists, recreation planners, etc.) responsible for evaluation of the route. The second part of the "General Background" section provides physical information about the route such as length, width, use, jurisdictions over which it passes, and origin (if known). Other information may also be included along with citizen comments and proposals, as applicable. In the "Citizen Comments and Proposals" subsection, "Author" refers to the citizen who made a proposal, and "Designation" refers to what designation a citizen proposed. If there are no citizen comments or proposals, "None" will be included in the subsection to apply to all headings in it.

SAMPLE Route Report for D3041

Facilitator(s):	Dennis Gale	**Initial Evaluation Date:**	8/30/2018
	Cam Gale Tom Folks		
		Modified Date:	2/18/2021
		Modified Reason:	Updates based on public comments.
Evaluators:	**Jared Lundell**, Archeologist	**Pam Riddle**, Wildlife Biologist	
	Lisa Wilkolak, Realty Specialist	**David Pals**, Geologist	
	Misti Haines, Outdoor Recreation Planner	**Bill Stevens**, ORP - Wilderness/WSA/LWC	
	Todd Murdock, Outdoor Recreation Planner (Permits)	**Doug Rowles**, NRS - Oil & Gas	
	Audrey Pefferman, Archaeology Intern/ GIS	**Ashley Losey**, Archaeologist	
	David Williams, Range Conservationist	**Katherina Diemer**, NRS	
	Jordan Davis, Assistant Field Manager	**Katie Stevens**, Outdoor Recreation Planner	

TMA:	Canyon Rims			
Length: 0.27 miles	**Width:** Dual Track	**Class:**	Primitive Roads	**Use Level:** Low
Route Type(s):	Spur			
Surface:	Not provided	**Maintained:**	Not Provided	
Origin:	Mining; Ranching	**Constructed:**	Not provided	
Jurisdictions:	BLM			

Additional Information	None.

Citizen Comments and Proposals

Author	Designation	Comment or Proposal
Mr. Marsh; Colorado Offroad Trail Defenders (COTD)	Open	Paraphrased comment: This spur off a known 4x4 route (called "Kamikaze') is used and valued. One of the commenters (Marsh) drove it recently and found it of value.

General Evaluation Questions

Does this route: ☐ either wholly or in part, have a right-of-way grant or is it simply an officially-recognized route with a record of management by another government agency? ☒ provide commercial, private property, or administrative access, e.g., via permit, ingress/egress rights or management responsibility? ☐ provide a principal means of connectivity within a Travel Management Area or sub-region? ☐ exist as part of an officially recognized part of an Agency planning document and is subject to maintenance? ☐ provide an important linkage between Travel Management Areas or planning sub-regions?	**YES**
Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public multi-use access opportunities enumerated in agency Organic laws?	**YES**
Might the continued use of this route potentially impact: ☒ State or Federal special status species or their habitat? ☒ cultural or any other specially-protected resources or objects identified by Agency planning documents, plan amendments? ☒ any special area designations, e.g., National Monuments? ☒ any other resources of concern?	**YES**
Can the anticipated potential impacts to the identified resources be avoided, minimized, i.e., reduced to acceptable levels, or be mitigated?	**YES**
Can the commercial, private property, recreation or public uses of this route be adequately met by another route or routes that may minimize impacts to the resources identified as part of this evaluation or that may minimize cumulative effects on various other resources?	**NO**

Evaluation Information

Introduction

Evaluation information in a route report is divided into three colored boxes that address the topics of CAPE (yellow), public uses (blue), and special resource concerns (green).

CAPE

The first part of the "Evaluation Information" section focuses on CAPE issues. "CAPE" is an acronym that represents the umbrella topic of commercial, administrative, and property owner access—*and* economics. In the CAPE section, the general issue questions for CAPE are answered, and a listing of facilities and access is provided. There are three types of access identified:

- Primary = Main access
- Alternate = Secondary or backdoor access
- Link = Route necessary for use of the primary access

Evaluation Information

Commercial, Administrative, Property and Economics

Route Management Objective(s) identify the purpose and need of the route:
This route provides important access to the following facilities and/or jurisdictions shown below for the purpose of carrying out administrative and/or authorized operations or for property access where applicable.

Facilities & Access	Specifically	Primary	Alternate	Link	Memo
Range Facilities	Active allotment	☒	☐	☐	
Mineral Facilities	High Mineral Potential	☒	☐	☐	
Mineral Facilities	Oil/Gas Lease	☐	☒	☐	

('Primary access' is the main route into a jurisdiction or facility. 'Alternate access', while leading directly to a jurisdiction or facility, it is not the main access and therefore may not be as important as a primary. 'Link access' does not lead directly to a jurisdiction or facility, but would be required to access a primary access.)

Public Uses

The second part of the "Evaluation Information" section focuses on public uses and provides a list identifying the facilities, modes of transportation, and activities associated with the route. If a facility, mode of transportation, or activity was not identified as associated with the route, it is not listed. As in CAPE, facility access is listed using the categories of "Primary," "Alternate," and "Link." Mode of transportation and activity are indicated by:

- Primary = Main mode or activity on the route
- Secondary = Other common modes and activities
- Infreq = Infrequent (uncommon modes or activities)

Recreational Uses

Route Management Objective(s) identify the purpose and need of the route:
This route provides public access to the following facilities using the listed travel modes for the purposes of engaging in the listed recreation activities.

Facilities	Description	Primary	Alternate	Link	Memo
Recreation Facilities	Scenic overlook	☒	☐	☐	

Travel Modes	Description	Primary	Secondary	Infreq
Modes of Transportation	UTV/ATV	☒	☐	☐
Modes of Transportation	Modified 4 Wheel Drive	☒	☐	☐

Activities				
Public Use Activities	Jeeping/4-Wheeling	☒	☐	☐
Public Use Activities	Hunting	☐	☒	☐
Public Use Activities	Scenic Driving	☒	☐	☐

('Primary access' are the main uses on the route by the public. 'Secondary uses', while common, are not the main use on the route. Infrequent uses are uses that are rare on this route, but have been observed.)

Special Resource Concerns

The third part of the "Evaluation Information" section focuses on special resource concerns. General issue questions for special resource concerns are answered. Then resources and concerns are identified. These are grouped into general categories such as:

- Biome
- Special status animals
- Managed species
- Resource issues, etc.

In the "Special Resource Concerns" box, routes are characterized as:

- In = Route or a portion of the route is in the resource area or area of concern
- Leads To = Route provides access to the resource area or area of concern but is not in the resource or area
- Crosses = Route crosses the resource (e.g., a route crossing a stream or a cultural site directly on the route)
- Prox = Proximate to; the route is near the resource or area of concern as indicated by the:
- Dist = Proximate distance

Special Resource Concerns

Resources Evaluated:
This route is in, leads to, crosses or is proximate to the natural and/or cultural resources and resource concerns listed below.

Resource/Concern	Specifically	In	LeadsTo	Crosses	Prox	Dist	Memo
Biome	Sagebrush	☐	☐	☒	☐		
Biome	Pinyon-Juniper	☐	☐	☒	☐		
Managed Species	Pronghorn crucial range	☒	☐	☐	☐		
Managed Species	Peregrine falcon nest	☒	☐	☐	☐		
Managed Species	Desert bighorn sheep lambing area	☒	☐	☐	☐		
Special Status Plants	Jones cycladenia habitat	☒	☐	☐	☐		
Special Status Plants	Navajo sedge habitat	☒	☐	☐	☐		
VRM	VRM Class II - Retain existing character	☒					
Sp. Mgnt. Areas	Habitat Management Area	☒	☐	☐	☐		
Sp. Mgnt. Areas	SRMA - Special Recreation Management Area	☒	☐	☐	☐		
Misc. Resources	Cryptobiotic Soil	☐	☐	☐	☒	1/4 mile	
Misc. Resources	Lands with Wilderness Chararacteristics	☐	☐	☐	☒	1/4 mile	

Note: *Specific sensitive resources, such as cultural or paleontological resources or Threaten or Endangered Species that may potentially be affected by this route are not listed in this report for their protection. These resources will be analyzed in the NEPA process included in the planning process of route designation.*

Designation Alternatives

The route report also contains the IDT's evaluation of alternative designations for each route. Alternative A (No Action/Current Management) simply states the current management of a route and its area designation (no color). The action alternatives (Alternatives B, C, and D in this example) are color-coded to "Open w/Management" or "Open" (green), "Limited w/Management" or "Limited" (orange), and "Closed" (pink).

For Open and Limited designations, "w/ Management" indicates that there are types of limitations, and that there would be adaptive management or other specific mitigation,

maintenance, and/or monitoring that was identified during evaluation. The "w/ Management" portion of Limited and Open designation labels are route specific; it is not used in designation labels found earlier in this document. If there is management assigned to the selected designation for the route, that management will be required as part of the TMP.

Limited alternatives include specific limitations regarding route use (e.g., limited by season, vehicle width, etc.). For Closed alternatives, information is provided about how routes would be closed/decommissioned. Also, if a route is redundant to another route, that is specified.

The Designation Alternatives also documents how the BLM IDT assessed the manner in which each potential route designation within the TMA is consistent with 43 CFR 8342.1.

Potential Alternative Route Designations

Alternative A (Current Management, No Action Alternative)

Area Designation:
Limited to Designated Routes

Route Designation:
Open

Specific designations by user type:

Administrative/Official Users:	All Federal, State and Local agencies may use this route by all motorized modes, year-round.
Authorized/Permitted Users:	Currently authorized users may use this route by all motorized modes, year-round. *Additional users may be authorized by the BLM through future authorizations.*
Non-motorized Public:	The public may use this route by all non-motorized modes, year-round.
OHV Public:	**Designation per 43 CFR § 8342.1: Open** - The public may use this route by all motorized modes, year-round.

Alternative B

Comprehensive Designation:
CLOSED
This route will be decommissioned and not managed as a BLM transportation asset. Unless otherwise signed, cross-country foot and animal use is allowed in the area.

OHV Public: Designation per 43 CFR § 8342.1: Closed

Specific Designation Criteria Addressed and Relevant to Route Issues:
• 43 CFR § 8342.1 (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
• 43 CFR § 8342.1 (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
• 43 CFR § 8342.1 (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

How Designation Addresses Criteria Above: Closing the route would minimize the potential for conflicts between off-road vehicle users and dispersed, non-motorized/non-mechanized forms of recreation. Closing this route, along with natural reclamation, would reduce visual contrast created by the route. Closing this route would contribute to retaining or restoring vegetation and soil cover, minimizing the potential for soil erosion. Closing this route would reduce overall impact of vehicle use and route footprint in the area. Closing the route would reduce the potential for impacts to endangered or threatened species and their habitats by eliminating motorized use and removing the route footprint.

Designation Criteria Addressed but Not Relevant to Route Issues:
(no known conflicts among users or no known resource concerns to minimize for)

• 43 CFR § 8342.1 (d)

Closure Method: Sign closed

Alternative C

Comprehensive Designation:
LIMITED

Comprehensive Designation Type:
Limited to Transportation Type.

Specific designations by user type:

Administrative/Official Users: All Federal, State and Local agencies may use this route by all motorized modes, year-round.

Authorized/Permitted Users: Currently authorized users may use this route by all motorized modes, year-round.
Additional users may be authorized by the BLM through future authorizations.

Non-motorized Public: The public may use this route by non-motorized modes (including horses, hiking), year-round.

OHV Public: **Designation per 43 CFR § 8342.1: Closed** - The public may not use motorized vehicles on this route, year-round.

Designation Criteria Addressed and Relevant to Route Issues:
• 43 CFR § 8342.1 (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
• 43 CFR § 8342.1 (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
• 43 CFR § 8342.1 (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

How Designation Addresses Criteria Above: Conflicts between recreation users would be minimized by eliminating the motorized uses on this route and managing it for non-motorized uses. Due to the low traffic volume and speeds expected on this route, allowing its continued use would contribute to minimizing the overall route network's potential for causing undue and unnecessary soil erosion, habitat disruption and/or vegetative damage. By providing a route that reduces the inclination to travel off-trail, the potential for damage to wildlife habitats would be minimized. By restricting public access to non-motorized modes of travel, the potential for impacting T&E species and their habitats would be reduced.

Designation Criteria Addressed but Not Relevant to Route Issues:
(no known conflicts among users or no known resource concerns to minimize for)
• 43 CFR § 8342.1 (d)

Alternative D

Comprehensive Designation:
OPEN W/ MANAGEMENT

Specific designations by user type:

Administrative/Official Users: All Federal, State and Local agencies may use this route by all motorized modes, year-round.

Authorized/Permitted Users: Currently authorized users may use this route by all motorized modes, year-round.
Additional users may be authorized by the BLM through future authorizations.

Non-motorized Public: The public may use this route by all non-motorized modes, year-round.

OHV Public: **Designation per 43 CFR § 8342.1: Open** - The public may use this route by all motorized modes, year-round.

Designation Criteria Addressed and Relevant to Route Issues:
• 43 CFR § 8342.1 (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
• 43 CFR § 8342.1 (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
• 43 CFR § 8342.1 (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

How Designation Addresses Criteria Above: The low traffic volume and low speeds that characterize the overall use of this route would reduce the potential for continued use of the route to impact documented resources. Allowing continued use of this route would minimize potential impacts to documented resources by concentrating motorized use (rather than dispersing it) on an alignment capable of accommodating the route's anticipated traffic volume. Continued use of this route with the added application of specific management prescriptions, would minimize potential impacts to documented resources. Allowing continued use of this route would minimize the potential for impacts to documented resources by providing targeted recreation activity and experience opportunities that reduce or eliminate the inclination for users to travel off-route.

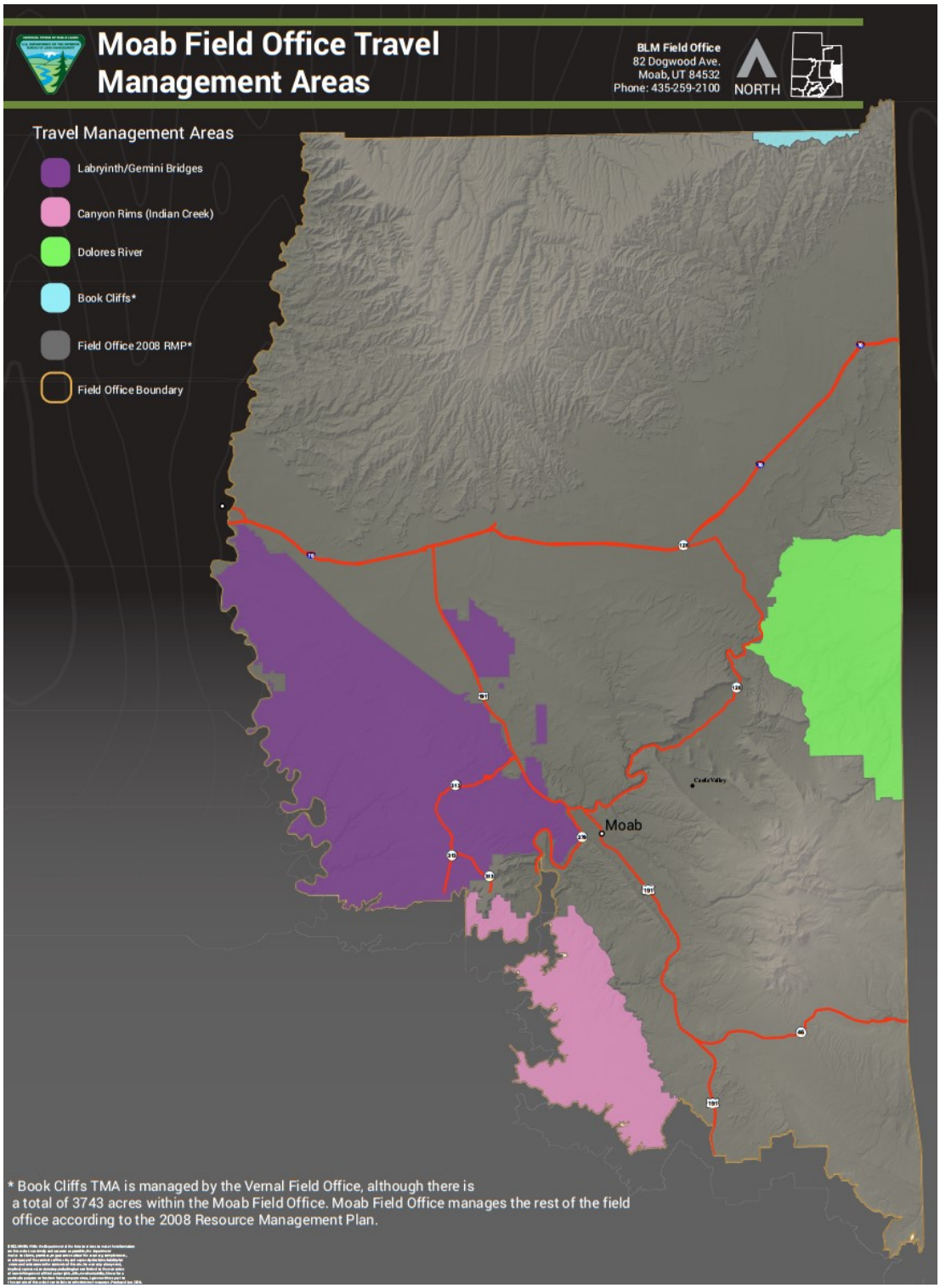
Designation Criteria Addressed but Not Relevant to Route Issues:
(no known conflicts among users or no known resource concerns to minimize for)
• 43 CFR § 8342.1 (d)

Potential Management Actions:
Maintenance: Signing - Directional

(Potential management actions may be incorporated with an overall monitoring strategy that would assess the status and/or integrity of the potentially impacted sensitive resource or resource issues identified as they relate to various external factors, e.g., climate cycles, exotic species introduction, visitor use levels (type, intensity, and season of use), etc. Monitoring data that indicate a decline in resource integrity or reveal methods of mitigation that proved to be unsuccessful would then trigger adaptive and appropriate responses aimed at restoring integrity or successfully mitigating undesirable conditions.)

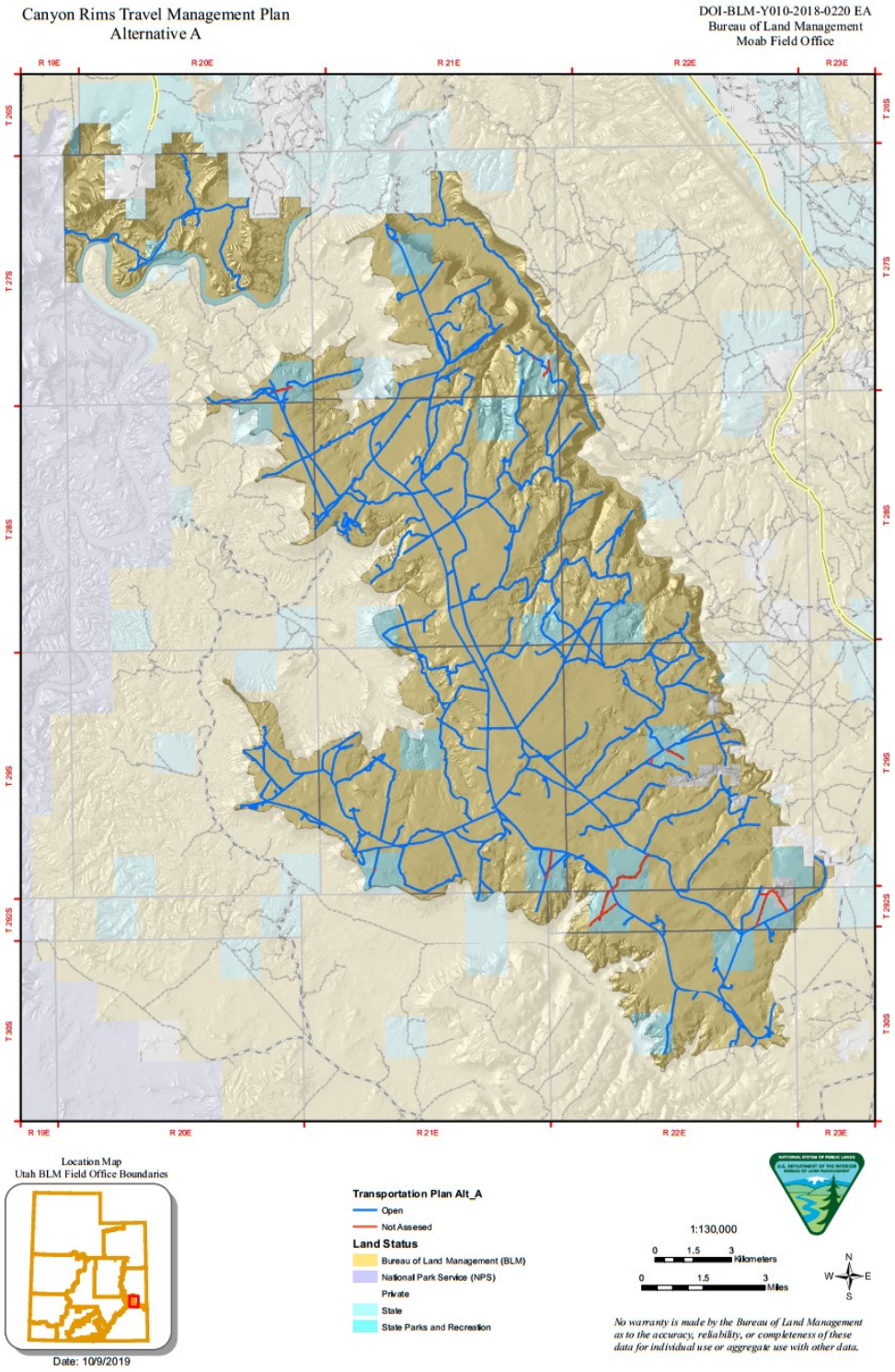
APPENDIX I. MAPS

Moab Field Office TMAs

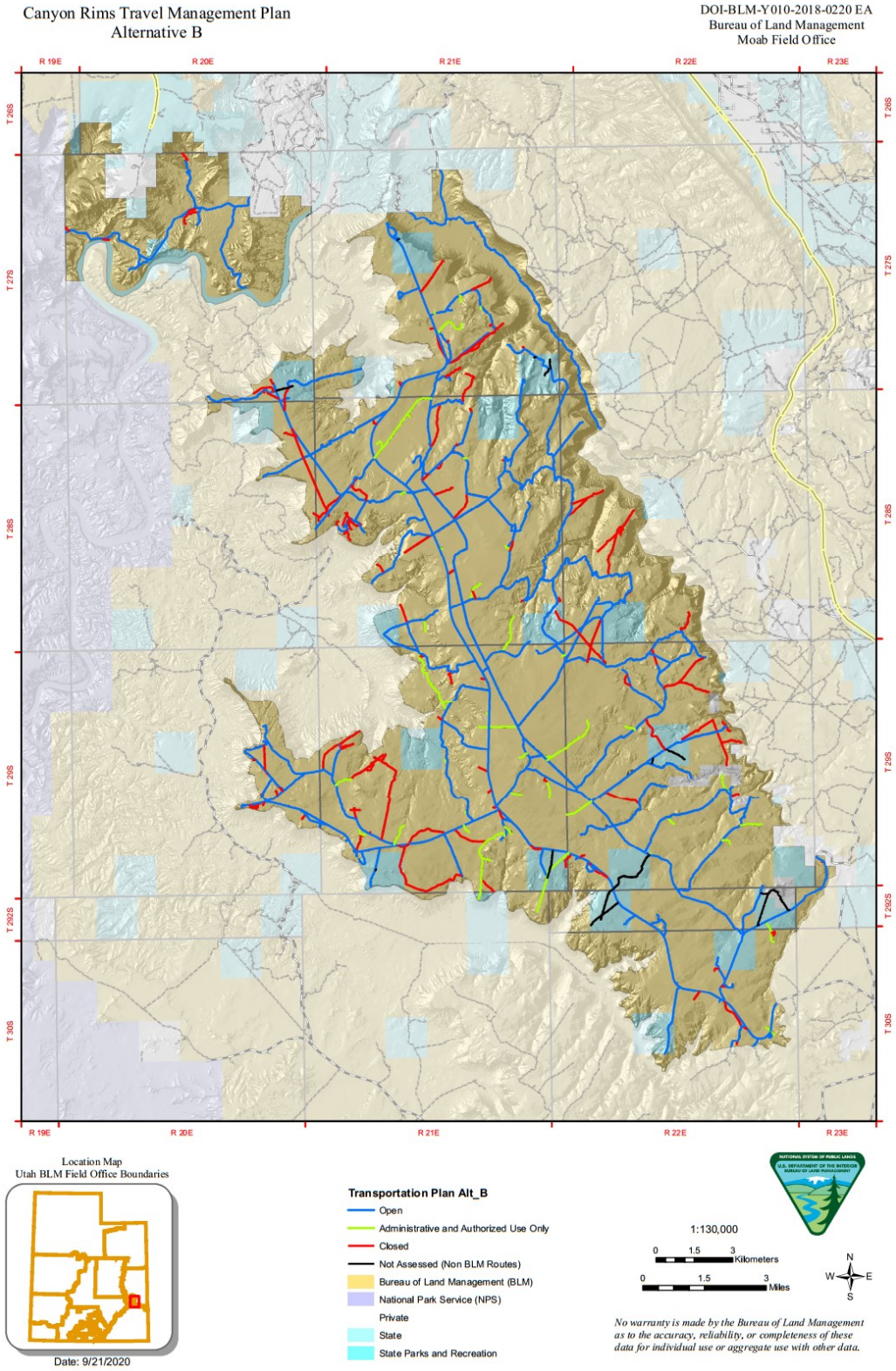


Canyon Rims Alternative Route Networks

Alternative A



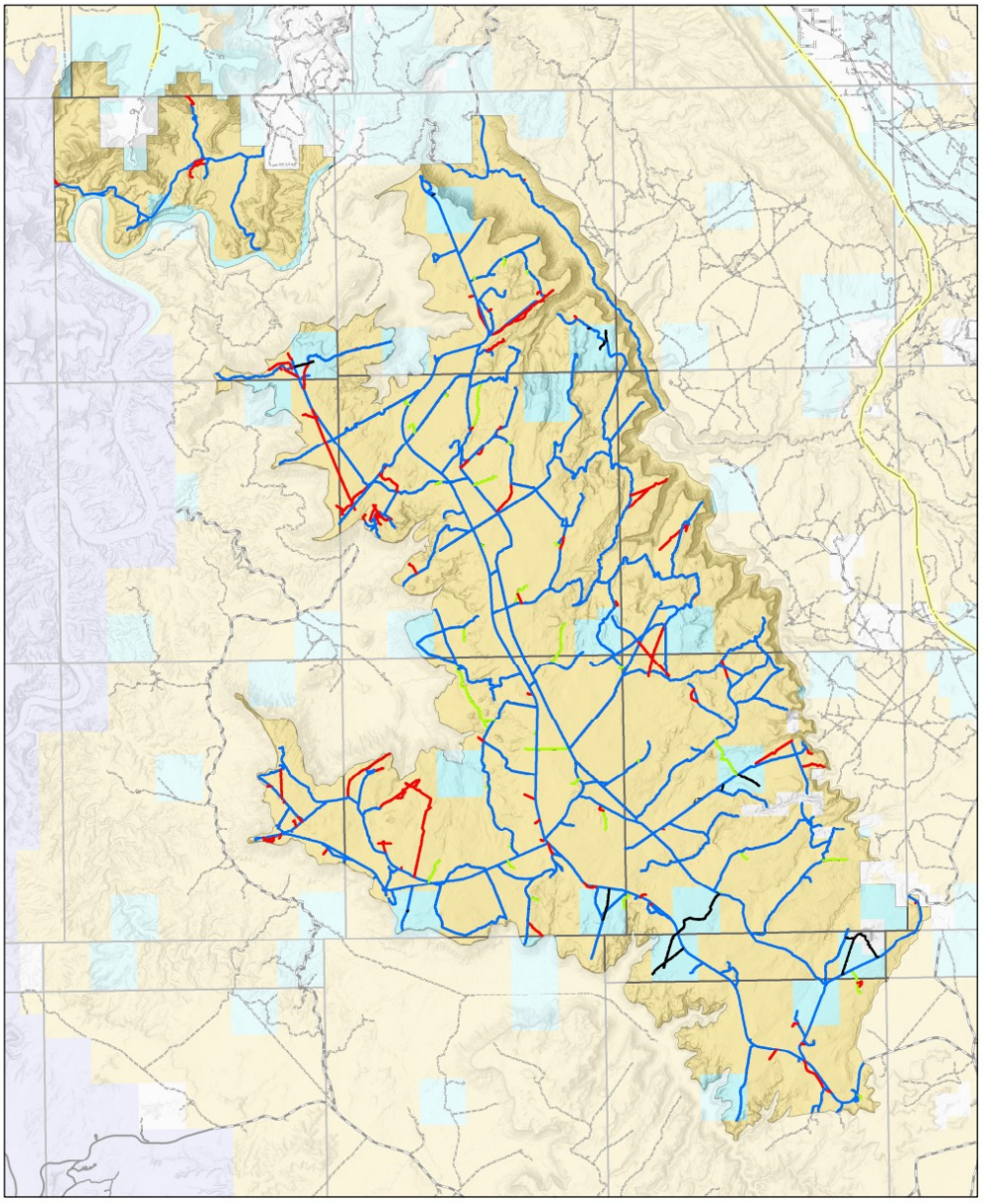
Alternative B



Alternative C

Canyon Rims Travel Management Plan
Alternative C

DOI-BLM-Y010-2018-0220 EA
Bureau of Land Management
Moab Field Office



Location Map
Utah BLM Field Office Boundaries

Date: 2/11/2021

Transportation Plan Alt_C

- Open
- Administrative and Authorized Use Only
- Closed
- Not Assessed (Non BLM Routes)
- Bureau of Land Management (BLM)
- National Park Service (NPS)
- Private
- State
- State Parks and Recreation

1:130,000

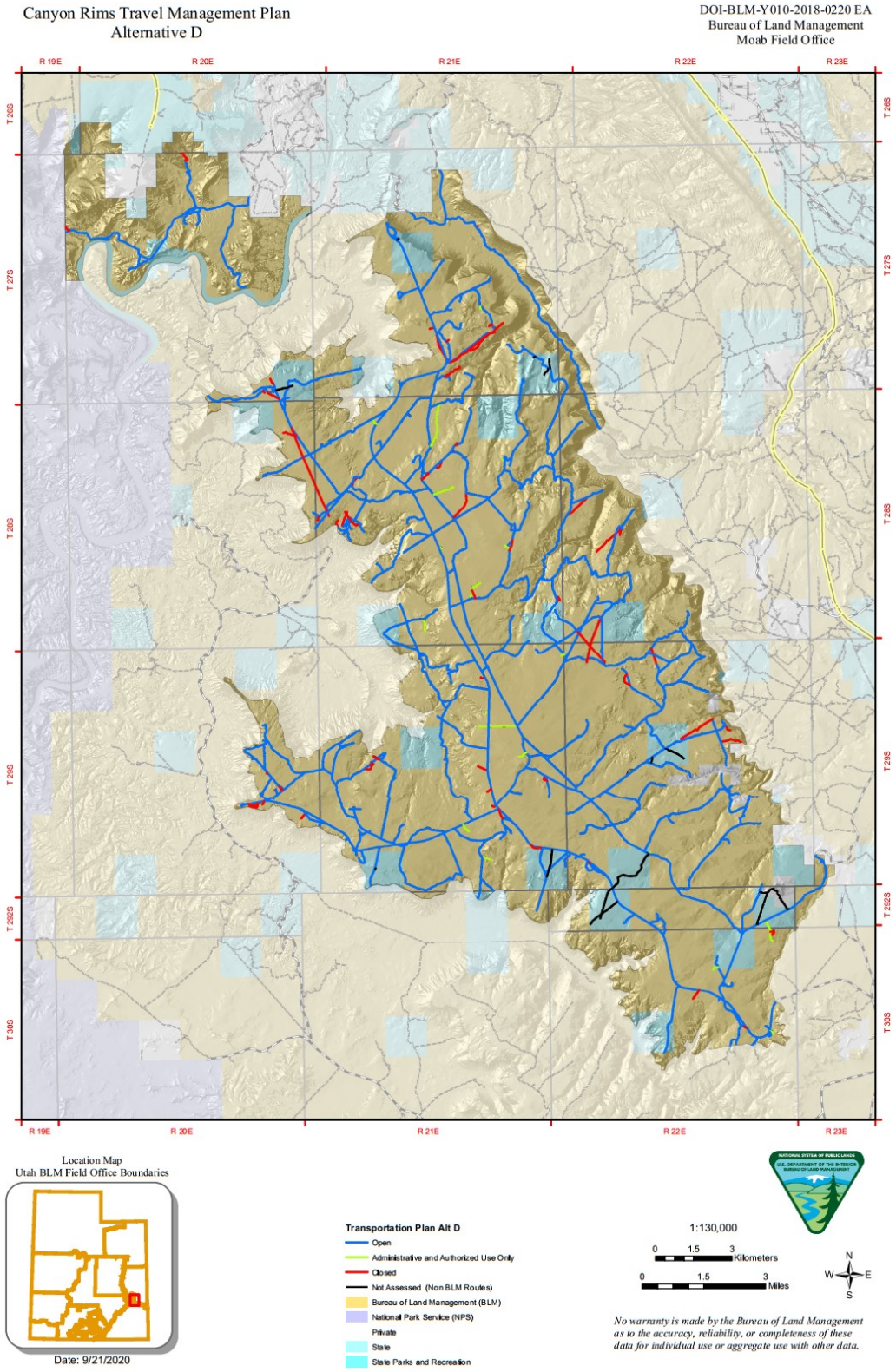
0 1.5 3 Kilometers

0 1.5 3 Miles

N
W E
S

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Alternative D



APPENDIX J. GLOSSARY

Access: The opportunity to approach, enter, and/or cross public lands.

Adaptive management: A type of natural resource management in which decisions are made as part of an ongoing science-based process. Adaptive management involves testing, monitoring, and evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings and the needs of society. Results are used to modify management policy, strategies, and practices.

Administrative use: Travel-related access for official use by BLM employees and agency representatives during the course of their duties using whatever means is necessary. Access is for resource management and administrative purposes and may include fire suppression, cadastral surveys, permit compliance, law enforcement, and resource monitoring or other access needed to administer BLM-managed lands or uses.

All-terrain vehicle (ATV): A wheeled vehicle other than a snowmobile, which is defined as having a wheelbase and chassis of 50 inches in width or less, handlebars for steering, generally a dry weight of 800 pounds or less, three or more low-pressure tires, and a seat designed to be straddled by the operator.

Alternatives: Other options to the proposed action by which the BLM can meet its purpose and need. The BLM is directed by the NEPA to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.…"

Asset: A non-building facility and transportation construction, which include roads, primitive roads, and trails that are included in FAMS. The BLM maintains assets through the annual and deferred maintenance programs.

Authorized use: Travel-related access for users authorized by the BLM or otherwise officially approved. Access may include motorized access for permittees, lessees or other authorized users, along with approved access across BLM-administered public lands for other state and federal agencies.

Class B road: Road that is constructed and maintained regularly by the County. As stated in Utah Code, Class B roads:

(a) are situated outside of incorporated municipalities and not designated as state highways;
(b) have been designated as county roads; or
(c) are located on property under the control of a federal agency and constructed or maintained by the county under agreement with the appropriate federal agency. (Utah Code 72-3-103)

Class D route: As stated in Utah Code, "any road, way, or other land surface route that has been or is established by use or constructed and has been maintained to provide for usage by the public for vehicles with four or more wheels that is not a class A, class B, or class C road" (Utah Code 72-3-105). The San Juan County General Plan Update (2018) states that Class D routes are "only maintained upon specific request."

Code of Federal Regulations (CFR): The codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

Cooperating agency: Assists the lead Federal agency in developing an environmental assessment or environmental impact statement. These can be any agencies with jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any tribe or Federal, State, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

Crucial habitat: According to the UDWR: "[Crucial] habitat [is that] on which the local population of a wildlife species depends for survival because there are no alternative ranges or habitats available. Crucial value habitat is essential to the life history requirements of a wildlife species. Degradation or unavailability of crucial habitat will lead to significant declines in carrying capacity and/or numbers of wildlife species in question" (UDWR 2019).

Critical habitat: An area occupied by a threatened or endangered species on which are found physical and biological features that are (1) essential to the conservation of the species, and (2) may require special management considerations or protection.

Cultural resource: A definite location of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit. They may be but are not necessarily eligible for the National Register of Historic Places.

Cultural resource inventory classes:

1. Class I - existing information inventory: a study of published and unpublished documents, records, files, registers, and other sources, resulting in analysis and synthesis of all reasonably available data. Class I inventories encompass prehistoric, historic, and ethnological/sociological elements, and are in large part chronicles of past land uses. They may have major relevance to current land use decisions.

2. Class II - probabilistic field survey: a statistically based sample survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area by interpreting the results of surveying limited and discontinuous portions of the target area.

3. Class III - intensive field survey: a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined. Class III methods vary geographically, conforming to the prevailing standards for the region involved. In Utah, pedestrian transects are spaced at 15-meter intervals.

Decision record (DR): The BLM document associated with an EA that describes the action to be taken when the analysis supports a finding of no significant impact.

Designated routes: Specific roads and trails identified by the BLM where some type of use is appropriate and allowed.

Disposal: Transfer of public land out of Federal ownership to another party through sale, exchange, Recreation and Public Purposes Act, Desert Land Entry or other land law statutes.

Easement: A right afforded a person or agency to make limited use of another's real property for other purposes.

Effects

Adverse or detrimental: Contribute to degradation of a resource or resource use.
Adverse effect to historic properties: An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.
Beneficial: Contribute to enhancement or restoration of a resource or resource use.
Cumulative: According to the Code of Federal Regulations (40 CFR 1508.7), a cumulative effect "is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (GPO 2012). In other words, these effects are the sum of the direct and indirect effects of an action and the direct and indirect effects of other actions on the same affected resources/uses.
Direct: Caused by alternative (same time and place).
Indirect: Caused by alternative but later in time or further in distance but still reasonably foreseeable.
Long-term: Generally considered to last 10 years or more.
Minor: The effect or impact is slight but detectable: there would be a small change to the quality of the physical, biological, social, and economic values and resources.
Negligible: The effect or impact is at the lower level of detection; there would be no measurable change to the quality of the physical, biological, social, and economic values and resources.
Residual: Direct and indirect effects that remain after the application of all mitigation measures.
Short-term: Generally considered to last from the point of occurrence to several weeks or months but not expected to last beyond a year or two.

Endangered Species Act (ESA): The purpose of the ESA is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (Service) and the Commerce Department's National Marine Fisheries Service (NMFS). Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

Environmental assessment (EA): Public document for which a federal agency is responsible that serves to: 1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact; 2) Aid an agency's compliance with the National Environmental Policy Act when no environmental impact statement is necessary; 3) Facilitate preparation of an environmental impact statement when one is necessary. Shall include brief discussions of the need for the proposal, of alternatives, of the environmental impacts of the proposed action and Alternatives, and a listing of agencies and persons consulted.

Environmental Impact Statement (EIS): Federal agencies prepare an Environmental Impact Statement (EIS) if a proposed major federal action is determined to significantly affect the quality of the human environment. The regulatory requirements for an EIS are more detailed and rigorous than the requirements for an environmental assessment (EA).

Erosion: Detachment and movement of soil from the land by wind, water, or gravity.

Facility Asset Management System (FAMS): The BLM's official database for the management of transportation system assets and facilities.

Facility: All or any portion of a building, structure, site improvement, element, pedestrian route, or vehicular way located on a site. An element is an architectural or mechanical component, generally including toilets, picnic tables, grills, registration kiosks, etc. at a site (including a staging site).

Finding of No Significant Impact (FONSI): A finding that explains that an action will not have a significant effect on the environment and, therefore, an EIS will not be required.

Forage: All browse and herbaceous foods that are available to grazing animals.

Geographic Information System (GIS): "System designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. The key word to this technology is Geography – this means that some portion of the data is spatial. In other words, data that is in some way referenced to locations on the earth. Coupled with this data is usually tabular data known as attribute data. Attribute data can be generally defined as additional information about each of the spatial features. An example of this would be schools. The actual location of the schools is the spatial data. Additional data such as the school name, level of education taught, student capacity would make up the attribute data. It is the partnership of these two data types that enables GIS to be such an effective problem-solving tool through spatial analysis. GIS is more than just software. People and methods are combined with geospatial software and tools, to enable spatial analysis, manage large datasets, and display information in a map/graphical form." (University of Wisconsin-Madison Libraries 2018)

Ground Transportation Linear Feature (GTLF): A geospatial database of all transportation linear features (from motorized to foot use) as they exist on the ground, not just those in the BLM transportation system (refer to the Ground Transportation Linear Features Data Standard Report, October 22, 2014, version 2.0 or later, for detailed information on the GTLF data standard).

Habitat fragmentation: The degree to which an area of habitat is divided into smaller patches of habitat as a result of human activities and developments (e.g. trails, roads, fencing) or as a result of natural barriers (e.g. cliffs, rivers).

Historic property: Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Impassable: Roads intended for full-size vehicle passage that are otherwise impassable as a result of road deterioration or vegetation overgrowth; project-level road maintenance is required to make these roads passable. Road deterioration or vegetation overgrowth may be a result of neglect, irregular maintenance, or management decisions.

Implementation decisions: Decisions that take action to implement land use planning; generally appealable to Interior Board of Land Appeals under 43 CFR 4.410. These decisions are generally more site-specific than land-use plan decisions.

Implementation plan: An area or site-specific plan written to implement decisions made in a land use plan. Implementation plans include both activity plans and project plans. Examples of implementation plans include interdisciplinary management plans, habitat management plans, and allotment management plans.

Interdisciplinary Team: A group of individuals with different training, representing the physical sciences, social sciences, and environmental design arts, assembles to solve a problem or perform a task. The members of the team proceed to a solution with frequent interaction so that each discipline may provide insights to any stage of the problem and disciplines may combine to provide new solutions. The number and disciplines of the members preparing the plan vary with circumstances. A member may represent one or more disciplines or BLM program interests.

Land use plan: 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. The term includes both resource management plans (RMPs) and management framework plans (MFPs).

Linear disturbance: A human-made linear travel or transportation related disturbance that is not part of the BLM's transportation system or travel network. Transportation linear disturbances may include engineered (planned) but no longer needed features, as well as unplanned routes that have been identified for decommissioning and reclamation either passively or actively. Linear disturbances may also include permitted realty features (e.g., pipelines or power lines) that may or may not have travel routes maintained in association with them.

Linear feature: A linear ground disturbance that results from travel across or immediately over the surface of BLM-administered public lands. These features include engineered roads and trails, as well as user-defined, non-engineered routes, created as a result of public or

unauthorized use. Linear features may also include permitted realty features (e.g., pipelines or power lines) that may or may not have travel routes maintained in association with them.

Mechanized travel: Moving by means of mechanical devices not powered by a motor, such as a bicycle.

Minimize: Limit the degree or magnitude of.

Mitigation: in general, a combination of measures to lessen the impacts of a project or activity on an element of the natural environment or various other cultural or historic values; more specifically, as defined by the Council on Environmental Quality in its regulations for implementing NEPA, mitigation includes: (a) avoiding the impact, (b) minimizing the impact, (c) rectifying (i.e., repairing, rehabilitating, or restoring) the impact (d) reducing or eliminating the impact through operations during the life of the project, or (e) compensating by replacing or substituting resources (40 CFR Section 1508.20).

Monitoring: The process of tracking the implementation of land use plan decisions and collecting and assessing data necessary to evaluate the effectiveness of land use planning decisions.

Motorized vehicles: Vehicles propelled by motors or engines, such as cars, trucks, off-highway vehicles, motorcycles, snowmobiles, and boats.

Multiple use: The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (FLPMA) (from M6840, Special Status Species Manual).

National Environmental Policy Act (NEPA): Requires federal agencies to assess and disclose the environmental effects of proposed actions prior to making decisions. BLM travel management must conform to NEPA requirements.

This legislation established a landmark national environmental policy which, among other things, encourages environmental protection and informed decision-making. It provides the means to carry out these goals by:

- mandating that every Federal agency prepare a detailed statement of the effects of "major Federal actions significantly affecting the quality of the human environment."
- establishing the need for agencies to consider alternatives to those actions.
- requiring the use of an interdisciplinary process in developing alternatives and
- analyzing environmental effects.

- requiring that each agency consult with and obtain comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved.
- requiring that detailed statements and the comments and views of the appropriate Federal, State, tribal, and local agencies be made available to the public.

National Historic Preservation Act (NHPA): 1966 legislation establishing the National Register of Historic Places and extending the national historic preservation programs to properties of State and local significance.

National Register of Historic Places (National Register): Official inventory of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering and culture.

National Register Eligibility Definitions:

Eligible: Cultural resources that are listed or recommended eligible for inclusion on the National Register of Historic Places (National Register), are those resources that express the quality of significance in American history, architecture, archeology, engineering, and culture and are represented as districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. To be listed or recommended eligible the cultural resource must possess the relevant aspects of integrity and meet at least one of the following National Register Criteria:

A. Associated with events that have made a significant contribution to the broad patterns of our history; or
B. Associated with the lives of significant persons in our past; or
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded or may be likely to yield, information important in history or prehistory. 36 CFR Part 800 defines National Register-eligible cultural resources as "historic properties."

Not eligible: Cultural resources that do not meet the National Register Criteria or maintain the relevant aspects of integrity.

Native vegetation: Plant species that were in the TMA prior to European settlement, and consequently are in balance with these ecosystems because they have well developed parasites, predators, and pollinators.

Naturalness: Refers to an area that "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" (Section 2[c] of the Wilderness Act of 1964).

Non-mechanized travel: Moving by foot or by stock or pack animal.

Noxious weeds: A plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new, or not common to the US.

Objective: A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established time frames for achievement.

Off-highway vehicle (OHV): 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 (as defined in 43 CFR 8340.0-5(a)).

Off-highway vehicle (OHV) area designation: A land use planning decision that permits, establishes conditions for, or prohibits OHV activities on specific areas of public lands. The BLM is required to designate all public lands as open, limited, or closed to OHVs. Below are definitions of these designations as taken from the 2016 BLM Travel and Transportation Management Manual (BLM 2016):

> **OHV Closed Areas:** An area where OHV use is prohibited. Access by means other than OHVs, such as by motorized vehicles that fall outside the definition of an OHV or by mechanized or non-mechanized means, is permitted. The BLM designates areas as closed, if necessary, to protect resources, promote visitor safety, or reduce user conflicts (see 43 CFR 8340.0-5(h)).
>
> **OHV Limited Areas:** An area where OHV use is restricted at certain times, in certain areas, and/or to certain vehicular use. Examples of restrictions include numbers or types of vehicles; time or season of use; permitted or licensed use only; use limited to existing, designated roads and trails; or other restrictions necessary to meet resource management objectives, including certain competitive or intensive use areas that have special limitations (43 CFR 8340.0-5 (g)).
>
> **OHV Open Areas:** A designated area where all types of OHV travel is permitted at all times, anywhere in the area subject only to the operating restrictions set forth in subparts 8341 without restriction (43 CFR 8340.0-5(f)). Open area designations are made to achieve a specific recreational goal, objective and setting and are only used in areas managed for intensive OHV activity 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.

Off-highway vehicle (OHV) route designations: Management designations applied to individual routes (as opposed to OHV areas) during interdisciplinary route evaluation sessions. The BLM designates routes as open, limited, or closed, and the designation must be included in all route-specific decisions and recorded in the national ground transportation linear feature dataset(s). Definitions and the designation criteria used in this decision-making process stem from those provided for OHV areas in 43 CFR 8340.0-5(f), (g), and (h).

- **OHV Open:** OHV travel is permitted where there are no special restrictions or no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting the timing or season of use, the type of OHV, or the type of OHV user.
- **OHV Limited:** OHV travel on routes, roads, trails, or other vehicle ways is subject to restrictions to meet specific resource management objectives. Examples of restrictions

include numbers or types of vehicles; time or season of use; permitted or licensed use only; or other restrictions necessary to meet resource management objectives, including certain competitive or intensive uses that have special limitations.

- **OHV Closed:** OHV travel is prohibited on the route. Access by means other than OHVs, such as by motorized vehicles that fall outside of the definition of an OHV or by mechanized or non-mechanized means, is permitted. The BLM designates routes as closed to OHVs if necessary to protect resources, promote visitor safety, reduce use conflicts, or meet a specific resource goal or objective.

Perennial stream: Perennial streams carry flowing water continuously throughout the year, regardless of weather conditions. It exhibits well-defined geomorphologic characteristics and in the absence of pollution, thermal modifications, or other man-made disturbances has the ability to support aquatic life.

Planning area: A geographic area for which land use and resource management plans are developed and maintained.

Primitive road: A linear route managed for use by four-wheel drive or high-clearance vehicles. Primitive roads do not normally meet any BLM road design standards. Unless specifically prohibited, primitive roads can also include other uses such as hiking, biking, and horseback riding.

Primitive route: Any transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

Reclamation: Returning disturbed lands to a form and productivity that will be ecologically balanced and in conformity with a predetermined plan.

Record of decision (ROD): Decision document associated with an EIS (equivalent to an EA's DR).

Recreation Management Information System (RMIS): The official BLM database for recording and tracking visitor use and acres with OHV area designations on BLM-managed lands; the BLM also uses it to track TMP completion and implementation; tool used by the BLM to record number of visits, types of activities, permits, partnerships, and agreements.

Recreation management zone (RMZ): A subdivision of a recreation management area that further delineates specific recreation opportunities and recreation setting characteristics.

Resource management plan (RMP): A land use plan as prescribed by the Federal Land Policy and Management Act that establishes, for a given area of land, land use allocations, coordination guidelines for multiple-use, objectives, and actions to be achieved.

Restoration: The process by which areas are brought back to a former, original or specific desired condition or appearance. Could involve putting vegetation back in an area where vegetation previously existed, which may or may not simulate natural conditions.

Right-of-way (ROW): An easement or permit that authorizes public land to be used for a specified purpose that is in the public interest and that requires rights-of-way over, upon, under,

or through such lands (e.g., roads, power lines, pipelines). A ROW holder is an authorized user for their ROW.

Riparian area: A form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

Road: A linear route declared a road by the owner, managed for use by low-clearance vehicles which have four or more wheels, and maintained for regular and continuous use. Often, many types of uses are allowed on roads. BLM allowed uses on roads are often hierarchical such that if motorized use is allowed on a road, various forms of non-motorized use are also allowed.

Rock Art: Petroglyphs (carvings) or pictographs (paintings) created on natural rock surfaces by native people and depicting their history and culture.

Route Evaluation: The careful and systematic review of each route by a BLM interdisciplinary team in conjunction with resource data collection and discussion of minimizing potential impacts during preliminary alternative designations. It is the process through which a BLM interdisciplinary team of resource specialists assess individual routes and documents potentially affected resources and/or resource uses associated with each route. During route evaluation, BLM staff will:

- Propose individual route designations for each route in a TMA based on individual alternative themes.
- Address how each route will minimize impacts on resources per 40 CFR 8342.1.
- Document rationales for each alternative designation choice.

Route Inventory: Collection of route line data for maps (may also include collection of point data and photos). Data may be collected in the field with GPS units or drawn on a computer screen from aerial imagery.

Routes: Multiple roads, trails and primitive roads; a group or set of roads, trails, and primitive roads that represents less than 100 percent of the BLM transportation system. Generically, components of the transportation system are described as “routes.”

Scoping (Internal and External): Process by which the BLM solicits internal and external input on the issues and effects that will be addressed, as well as the degree to which those issues and effects will be analyzed, in the NEPA document. Scoping is one form of public involvement in the NEPA process. Scoping occurs early in the NEPA process and generally extends through the development of alternatives (the public comment periods for EIS review are not scoping). Internal scoping is simply federal or cooperator review to decide what needs to be analyzed in a NEPA document. External scoping, also known as formal scoping, involves notification and opportunities for feedback from other agencies, organizations and the public.

Sensitive Species: Species designated as sensitive by the BLM State Director, including species that are under status review, have small or declining populations, live in unique habitats, or require special management. BLM Manual 6840 provides policy and guidance for managing special status species.

Solitude: The state of being alone or remote from habitations; isolation. A lonely or secluded place. Factors contributing to opportunities for solitude may include size, natural screening, topographic relief, vistas, physiographic variety, and the ability of the user to find a secluded spot.

Special recreation management area (SRMA): An administrative unit where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, or distinctiveness, especially compared to other areas used for recreation.

Special recreation permits (SRPs): Permits issued to businesses, organizations, and individuals to allow the use of specific public land and related waters for commercial, competitive, and organized group use. Special Recreation Permits allow land stewards to coordinate and track commercial and competitive use of public lands. They also provide resource protection measures to ensure the future enjoyment of those resources by the public.

Special status species: Species that are proposed for listing, officially listed as threatened or endangered, or are candidates for listing as threatened or endangered under the provisions of the Endangered Species Act (ESA); those listed by a State in a category such as threatened or endangered implying potential endangerment or extinction; and those designated by each State BLM Director as sensitive.

State Historic Preservation Office (SHPO): Office in State or territorial government that administers the preservation programs under the National Historic Preservation Act.

Substantial habitat: According to the UDWR: "[Substantial] habitat [is] that which is used by a wildlife species but is not crucial for population survival. Degradation or unavailability of substantial value habitat will not lead to significant declines in carrying capacity and/or numbers of the wildlife species in question" (UDWR 2019).

Surface-disturbing activities: Human-caused disturbance resulting in direct and pronounced alteration, damage, removal, displacement, or mortality of vegetation, soil, or substrates; usually entail motorized or mechanized vehicles or tools; typically can also be described as disruptive activities. Examples of typical surface disturbing activities include:

- Earth-moving and drilling
- Geophysical exploration
- Off-route motorized and mechanized travel
- Vegetation treatments including woodland thinning with chainsaws
- Pyrotechnics and explosives
- Construction of powerlines, pipelines, oil and gas wells, recreation sites, livestock improvement facilities, wildlife waters, or new roads

Threatened species: Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the Federal Register.

Traditional uses: Longstanding, socially conveyed, customary patterns of thought, cultural expression, and behavior, such as religious beliefs and practices, social customs, and land or resource uses. Traditions are shared generally within a social and/or cultural group and span

generations. Usually traditional uses are reserved rights resulting from treaty and/or agreements with Native American groups.

Trail: A linear route managed for human-powered, stock, or off-road vehicle forms of transportation or for historical or heritage values. The BLM does not generally manage trails for use by four-wheel-drive or high-clearance vehicles.

Travel management area (TMA): Portion of land (often represented with a polygon) where areas have been classified as open, closed or limited; TMAs have an identified and/or designated network of roads, trails, ways, and other routes that provide for public access and travel. All designated travel routes within TMAs should have a clearly identified need and purpose as well as clearly defined activity types, modes of travel, and seasons or time-frames for allowable access or other limitations.

Travel management plan (TMP): A document that describes decisions related to the selection and management of a travel network and transportation system.

Travel network: Routes occurring on public lands or within easements granted to the BLM that are recognized, designated, decided upon, or otherwise authorized for use through the planning process or other travel management decisions. These may or may not be part of the transportation system and may or may not be administered by the BLM.

Unevaluated (to the Natural Register): A site that has not been evaluated to determine if it is eligible to the National Register of Historic Places.

Utility Terrain Vehicle (UTV): Any recreational motor vehicle other than an ATV, motorbike or over snow vehicle designed for and capable of travel over designated unpaved roads, traveling on four (4) or more low-pressure tires, maximum width less than seventy-four (74) inches, usually a maximum weight less than two thousand (2000) pounds, or having a wheelbase of ninety-four (94) inches or less. Does not include vehicles specially designed to carry a person with disabilities.

Visual Resource Inventory (VRI): An inventory taken to identify visual resource values and quality.

Visual Resource Management (VRM): The system by which BLM classifies and manages scenic values and visual quality of public lands. The system is based on research that has produced ways of assessing aesthetic qualities of the landscape in objective terms. After inventory and evaluation, lands are given relative visual ratings (management classes) that determine the extent of modification allowed for the basic elements of the landscape.

Visual resources: The visible physical features on a landscape, (topography, water, vegetation, animals, structures, and other features) that comprise the scenery of the area.

Wetland: Permanently wet or intermittently water-covered areas, such as swamps, marshes, bogs, potholes, swales, and glades.

Wilderness characteristics: Wilderness characteristics include size, the appearance of naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation. Indicators of an area's naturalness include the extent of landscape modifications; the presence of native vegetation communities; and the connectivity of habitats. Outstanding

opportunities for solitude or primitive and unconfined types of recreation may be experienced when the sights, sounds, and evidence of other people are rare or infrequent, in locations where visitors can be isolated, alone or secluded from others, where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered.

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APPENDIX K. PUBLIC COMMENTS AND BLM RESPONSES

K.1: Public Comments on EA and BLM Responses

Note: Many of the comments received on the EA were non-substantive and did not result in a change to the EA itself. However, all comments received on the EA are included in this list for the sake of completeness and to record the opinions of the comments.

Table K.1: Comments Generally Supportive of More Route Closures

Name	Public Comment	BLM Response
Belles	*Recommends choosing Alternative B because those routes in C and D are mostly redundant and short stub routes that have no real destination.*	The commenter's preference for Alternative B is noted. Commenter presents no specific information concerning the routes in Alternatives C and D, although he asks that redundant routes be eliminated.
Hoff	*Recommends choosing Alternative B because it is the only alternative that follows the minimization criteria. Further states that Canyon Rims is an area where solitude can be found.*	The commenter's preference for Alternative B is noted. Commenter presents no specific information concerning the routes in Alternatives C and D that resulted in any changes to the EA. The BLM agrees that solitude is findable in the Canyon Rims Recreation Area.
McRoberts	*Recommends Alternative B to maintain quiet places, wildlife habitat and dark skies. Specifically asks for roads to be banished in Trough Springs Canyon, Trout Water Canyon and Harts Draw.*	The desire of the commenter for Alternative B is noted for the reasons mentioned. There are no motorized routes inventoried or designated within Trough Springs Canyon, which is in the TMA. Although there are routes designated in the upper parts of the Trout Water drainage, there are no routes designated (nor inventoried) in Trout Water Canyon itself. Harts Draw does have a motorized route within it; however, Harts Draw is in the Monticello Field Office of the BLM and is not within the Canyon Rims TMP.
Moran	*I encourage the adoption of Alternative B. There are too many roads in the TMA, and many of them are redundant and user-made. Cultural resources and wildlife would benefit from fewer roads; roads will revegetate and increase habitat. Noise from motorized vehicles is also an issue, as is increased erosion.*	The desire of the commenter for Alternative B is noted for the reasons mentioned. All action alternatives reduce the route network, often by removing redundant routes. BLM considered vehicle noise and analyzed it as as an effect in the EA (see Section 3.2.2.2). Erosion is an issue discussed in the Soils section (Section 3.2.3).
O'Brien	*Wishes to see no roads designated in the Canyon Rims Travel Management Area.*	The desire of the commenter to see no routes designated in the Travel Management Area does not meet the purpose and need of the proposed action, which is to formulate a new TMP for this area of public land.

Name	Public Comment	BLM Response
San Juan County Commission	*San Juan County supports the adoption of Alternative B because it would best protect cultural resources from vandalism, looting and unintentional damage. Studies have found a correlation between vandalism and distance from road and ease of access. Limiting motorized access in areas with cultural resources is a proven way to protect them, as the Canyon Rims Travel Management Area contains important cultural resources, including rock art and lithic scatter. Choosing Alternative B would provide the most protection for cultural resources, including sites that are eligible for listing on the National Register and for those that are not eligible.*	The preference of the San Juan County Commission for Alternative B is noted for the reasons mentioned. The BLM does not analyze illegal behavior (such as vandalism, looting and damage to cultural resources) as part of its travel planning. The BLM acknowledges that Alternative B restricts access to cultural resources more than does Alternatives C or D.
San Juan County Commission	*Canyon Rims provides important wildlife habitat, including for desert bighorn sheep and pronghorn antelope. Large, remote and intact habitat is becoming increasingly rare and yet is vitally important to allow for movement of these species. Alternative B provides the most protection for these two species; roads cause habitat avoidance and abandonment, interference with daily movement, increased physical stress that results in decreased health, and vehicle collisions.*	The County Commission's preference for alternative B is noted. The effect of road networks on wildlife is analyzed in the EA in Section 3.2.8.2.
Southern Utah Wilderness Alliance and the Wilderness Society SUWA.WS	*BLM failed to apply the minimization criteria, using only mileage to compare impacts. Alternatives C and D do not minimize impacts, and the EA admits that Alternative B would offer the most protection to resources. Alternatives C and D designate routes in BLM-identified lands with wilderness characteristics, as well as in riparian areas and wildlife habitat.*	The comment is non-substantive and states a legal opinion, to which no response is required.
SUWA.WS	*BLM's route evaluation forms are inadequate. BLM must add information about routes regarding Purpose and Need. Routes D1608, D4818, D1476; D1618; D1619a; D1498; D0606b; D2496; and D1622b must be addressed.*	Route-specific responses are provided in the accompanying table.
SUWA.WS	*BLM relies on an unsupported contention that low traffic speeds will minimize soil erosion, habitat disruption or vegetative damage (see route evaluation forms D1607, D4818, D1618, D 1498).*	Soil erosion and vegetative damage are discussed in Section 3.2.3.2. Habitat disruption is discussed in Section 3.2.8.2. Vehicle speed can result in fugitive dust emissions (from soil disturbance), and this dust can affect soils and vegetation as described in the EA. Research has found that higher vehicle speeds result in higher dust emissions (Goossens & Buck, 2009).

Name	Public Comment	BLM Response
SUWA.WS	*Furthermore, the BLM sets up the spurious claim that designated a given route would minimize impacts because relocating the route would lead to greater impacts. There is no requirement that BLM relocate any routes.*	The BLM arrives at the Purpose and Need for a route by determining what function it serves in the Travel network. Each route was examined by an Interdisciplinary Team as well as representatives of San Juan County, PLPCO and SITLA. The destination of the route, or its connectivity with other routes, was discussed and evaluated. The Purpose and Need for each route is recorded in the Route Evaluation Forms. In several route reports, the BLM does acknowledge that relocating a route would lead to greater impacts. The assumption is made that the route in question goes somewhere that people wish to go – if the route were closed, there may remain a need to go to that location, leading to greater damage from either illegal cross country travel or route relocation.
SUWA.WS	*Leaving routes open in LWC impacts the constituent element of wilderness characteristics. Settlement requires the BLM to consider the potential damage to any constituent element of wilderness characteristics, including naturalness, outstanding opportunities for solitude and outstanding opportunities for primitive and unconfined recreation.*	The BLM has disclosed in the EA the potential damage to wilderness characteristics and its constituent elements of naturalness, solitude and primitive recreation in Section 3.2.2.2. Information concerning the inventory of wilderness characteristics lands has been added to Section 3.2.2. An explanation of the BLM's inventory process vis-a-vis wilderness characteristics has been added to Section3.2.2.1. The impacts to LWC units are described in Section 3.2.2.2.
SUWA.WS	*BLM rarely discussed how designating a route through identified LWC would impact the constituent elements of wilderness characteristics. BLM must revise its route evaluation forms to account for potential damage to constituent elements of wilderness characteristics.*	The BLM has identified in each route report's special resources concern table the presence of wilderness characteristics. Then each alternative's table discloses how the proposed designation under that alternative (closed, limited, or open) affects wilderness characteristics. For example, closed-route impact text says: "By closing the route, the potential for future impacts to wilderness character and impairment of wilderness suitability would be minimized while wilderness characteristics of naturalness and opportunities for solitude would be enhanced." The open-route impact text says: "Continued use of this route would minimize impacts to wilderness characteristics (LWC or Natural Area) by providing reasonable access to these lands on a pre-existing route, reducing the potential for new disturbances from cross-country use." See individual route reports. Impacts to wilderness characteristics are outlined in Section 3.2.2.2.
SUWA.WS	*BLM refused to consider any other type of recreation in its travel planning, as required by Manual 1626.*	See sections 1.4 and 3.3.1.
SUWA.WS	*BLM failed to take a hard look. Specifically, BLM failed to acknowledge existing potash leases or oil and gas leases in the cumulative impacts section. These leases would increase*	Section 3.2.11 lists the past, present or reasonably foreseeable actions and includes the Moab Master Leasing Plan (which covers oil and gas and potash leasing in the TMA) as well as the 2008 Resource Management Plan. These

Name	Public Comment	BLM Response
	traffic on roads as well as increase public use of newly constructed minerals roads.	documents include reasonably foreseeable development scenarios which address leasing actions. Although there are no potash leases within the TMA, language has been added to the EA in Section 3.2.11 concerning maintenance and use of routes by minerals companies as a reasonably foreseeable action.
SUWA.WS	*The BLM failed to analyze impacts to the yellow-billed cuckoo or to the white-tailed prairie dog. The BLM must also do a more thorough assessment of potential impacts to the Mexican spotted owl.*	There are no known populations of the yellow-billed cuckoo within the TMA; this fact is listed in the Biological Assessment prepared by the MFO and sent to U.S. Fish and Wildlife Service. Specifically, according to the *Guidelines for the identification of suitable habitat for WYBCU in Utah* (2015) - presented by the USFWS during training in Green River Utah, --there is no suitable cuckoo habitat within 0.5 miles of any road within the TMA. The white-tailed prairie dog is not found within the Canyon Rims TMA; prairie dog habitat within the TMA is that of the Gunnison's prairie dog. Impacts upon that species are analyzed in the EA in Section 3.2.10.2. The impacts of route designation on Mexican spotted owl are analyzed in Section 3.2.10.2. In addition, consultation concerning the Mexican spotted owl is part of the Biological Assessment prepared by the MFO for the USFWS as part of the Section 7 consultation process.
SUWA.WS	*BLM failed to take a hard look at cumulative impacts to wildlife.*	Cumulative impacts to wildlife are analyzed in section 3.2.11.
SUWA.WS	*BLM failed to take a hard look at Air Quality, dismissing it as "NI" in the checklist. An air quality analysis must be completed. See papers by Dunway and Switalski*	The BLM has considered dust as an effect on natural resources throughout Chapter 3, as applicable. The BLM's rationale for not analyzing impacts from vehicle emissions is stated in Appendix E: Interdisciplinary Checklist.
SUWA.WS	*BLM failed to analyze greenhouse gas emissions associated with OHV travel.*	The BLM's rationale for not analyzing impacts to climate change from greenhouse gas emissions is stated in Appendix E: Interdisciplinary Checklist. In addition, none of the alternatives propose creating new routes that would directly or indirectly promote new greenhouse gas emissions or climate change impacts. Furthermore, any increase in use of designated routes will occur because of reasons distinct from the designation of the route itself. As a result, calculating a GHG emissions inventory will not help make a reasoned choice between alternatives (BLM Handbook H1790-1 section 6.4.1) and will not concentrate on the issues that are truly significant to the action in question (40 CFR 1500.1(b).
SUWA.WS	*The BLM must comply with its National Historic Preservation Act Section 106 responsibilities. SUWA is a consulting party on the Canyon Rims TMP and submitted comments on BLM's compliance with Section 106.*	This comment is not relevant to the content of this EA. The Section 106 process is summarized in Appendix G.

Name	Public Comment	BLM Response
SUWA.WS	*To comply with the Settlement Agreement, Travel Plan PA and HNPA, the BLM must determine which routes to survey for cultural resources using individual site type maps.*	See Appendix G.
SUWA.WS	*BLM must evaluate the potential effects of increased OHV use on routes designated through this process rather than limiting its analysis to current motorized use.*	Projecting future use is speculative, although past use patterns can be used as a proxy. The specific traffic counter data from the Canyon Rims Recreation Area has been added to Section 3.3.1.1.
SUWA.WS	*The BLM does not provide sufficient information in its "Effect Justification" for eligible sites. The BLM revisited 27 sites within the APE that had previously been determined eligible for listing on the National Register. BLM determined that 16 of them were no longer eligible. BLM must provide more information to support its decision to remove its NRHP eligibility determination.*	This comment does not address the EA. However, neither the NHPA implementing regulations or the Travel Management Programmatic Agreement direct the BLM to provide this information to consulting parties other than SHPO. This information was provided to SHPO, and they concurred with BLM's eligibility determination on 12/08/2020.
SUWA.WS	*BLM failed to take a hard look at the direct, indirect and cumulative impacts to cultural resources. Repeated travel on a route may have significant impacts (see Spangler's work). BLM failed to analyze reasonably foreseeable impacts to cultural resources, including from increased use.*	BLM analyzed impacts to cultural resources in the EA in Section 3.2.1.2. In that section wording was changed from "a minor impact" to a "moderate impact," meaning that none of the eligible and previously eligible sites were impacted to the extent they no longer had sufficient integrity to convey their significance for qualification for eligibility under the NRHP. Known and newly documented sites within a ¼ mile of all proposed routes were considered for impacts. BLM determined that it may be reasonably foreseeable that three sites may be adversely affected as defined in 36 CFR 800.5. As noted in 36 CFR 800.(a)(1) an adverse effect on a historic property does not necessarily lead to a significant impact. To address possible effects, the BLM developed a Historic Properties Treatment Plan that minimize future effects to the three sites. The study cited by SUWA is not relevant in the context of Canyon Rims. The site types and deposition in Canyon Rims are different than those that occur in Ten Mile Canyon, which was the subject of Spangler's work. Ten Mile Canyon is within the Labyrinth Rims/Gemini Bridges TMA, not the Canyon Rims TMA. Current data does not indicate that motorized use in the Canyon Rims is increasing or will increase (use has actually decreased over the past several years); see section 3.3.1.1. As noted above, reasonably foreseeable and cumulative impacts were considered in BLM's NRHP finding and will be addressed.
SUWA.WS	*Sites need not be eligible to receive consideration under NEPA.*	The analysis found in Section 3.2.1.2 (pages 16 – 19) considers Historic Properties (sites eligible for the National Register), sites determined to

Name	Public Comment	BLM Response
		ineligible, and unevaluated sites. Thus, ineligible sites are considered in the EA.
SUWA.WS	*See also route specific comments in "Route by Route" comment chart.*	See route specific responses in the "Route by Route" comment chart.
Todd	*We do not need to develop all roads for recreation use.*	The comment, while non-substantive, is noted as a preference.
Young	*Recommends choosing Alternative B to maintain the quiet and remoteness of the area. More roads = more dust, which reduces viewsheds.*	The preference of the commentor for Alternative B is noted. The impacts of the dust raised by travel on dirt roads is discussed in Section 3.2.2.2 and in Section 3.2.3.2. the effect of dust on viewsheds has been added to the EA in Section 3.2.5.2

Table K.2: Comments Generally Supportive of Fewer (or No) Route Closures

Name	Public Comment	BLM Response
Blue Ribbon Coalition	*Urges the choice of Alternative D, as both B and C include closures of high value routes. Finds particular fault with Alternative B.*	The preference for D is noted, as is the antipathy toward Alternative B. Specific routes suggested as high value for OHV recreation (primarily by Colorado Offroad Trail Defenders) are discussed in the accompanying chart on route specific comments.
Blue Ribbon Coalition	*Canyon Rims has been managed effectively under the existing travel plan. There are no significant impacts requiring large amount of closures.*	The Purpose and Need for the proposed action is to meet the requirements of the 2017 Settlement, as well as to "provide for a variety of public OHV opportunities." Every linear feature does not equal an opportunity.
Blue Ribbon Coalition	*The highest value routes lead to scenic overlooks and also provide for dispersed camping opportunities.*	Scenic overlooks are highlighted in the specific route reports, as is the opportunity for dispersed camping. It should be noted that dispersed camping is not as popular in the Canyon Rims area as in other lands near Moab; dispersed camping is not allowed in the Shafer Basin portion of the TMA.
Blue Ribbon Coalition	*Recreational user conflict is "overhyped and overpublicized". BRC believes in shared use and does not support closing routes to satisfy "pathologically disgruntled individuals seeking their own private rejuvenation".*	User conflicts may be in the mind of the beholder, but these conflicts are real in people's minds. BLM Manual 1626: (Travel and Transportation Management) recognizes user conflict as a factor to be reduced through travel planning actions. 43 CFR 8342.1 (Designation Criteria) states: "areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands."
Blue Ribbon Coalition	*We are concerned that BLM is taking into consideration an alternative that removes roads in all Red Rock Wilderness Act locations.*	BLM considered only those lands it had inventoried and found to have wilderness characteristics. The Settlement Agreement specifically states that "BLM will consider in the NEPA document at least one proposed alternative route network that would not designate for ORV use any route where BLM has determined that such use may "damage", 43 CFR 8342.1 BLM-

Name	Public Comment	BLM Response
		inventoried wilderness characteristics" (Settlement, page 12). Alternative B meets this court-ordered requirement.
Blue Ribbon Coalition	*Supports Alternative D because all routes have a purpose and need.*	The commenter's assertion that all routes have purpose and need is noted. However, since some of the routes in the TMP have not been used since they were designated in 2008, that purpose and need is not readily apparent. The role of the BLM is to balance resources, including recreation use of routes with natural and cultural resource concerns.
Blue Ribbon Coalition	*Applauds the BLM's determination of "Negligible Impact" for Air Quality; points out that SUWA's comments on Air Quality cite Jane Belnap; Ms. Belnap is cited in High Country News stating that the Milford Flat Fire is the primary cause of fugitive dust. BRC avers that ORV use is not the cause of fugitive dust.*	Dust is analyzed in the EA in Section 3.2.1.2, Section 3.2.2.2, Section 3.2.3.2 and Section 3.2.5.2. Jayne Belnap, who studies dust on the Colorado Plateau for the U.S. Geological Survey, was featured in an article about the subject in *High Country News*. The article states: "By using satellite images and matching the chemical signatures of dust on snow back to its original landscape, dust gurus have figured out that winds are picking soil up from disturbed desert areas in Arizona, Utah and New Mexico (and increasing aridity isn't helping). Most of that is coming from the Colorado Plateau, and Milford Flat – the site of Utah's largest wildfire – is a chronic contributor, according to Jayne Belnap**,** an ecologist with the U.S. Geologic Survey in Moab, who was involved in the recent study. The problem with tracking dust sources is that the big contributors like Milford Flat are easy enough to see in satellite imagery, but the small and medium ones, like dusty dirt roads, abandoned housing developments, or overgrazing, are harder to pinpoint. It takes many years of data, which Belnap doesn't have yet, to say 'grazing does this, and roads do that'" (*High Country News*, November 27, 2013). Thus, the Milford Flat Fire was identified as a large point source, but not as the *only* source of dust. Driving on dirt roads raises dust; the effects of that dust are not yet fully understood.
Blue Ribbon Coalition	*Supports the route specific comments offered by the Colorado Offroad Trail Defenders – attaches that group's comments as Appendix A.*	Route specific comments are addressed in the chart containing route specific comments and responses.
Colorado Offroad Trail Defenders	*COTD recommends Alternative D because it preserves the greatest number of existing motorized route. Alternatives B and C would "significantly" harm the experience of motorized recreationists. We have no objection to closing a handful of existing routes that are redundant, rarely used*	The preference of Colorado Offroad Trail Defenders for Alternative D is noted, as well as its opinion of Alternatives B and C.

Name	Public Comment	BLM Response
	and naturally reclaiming. Only Alternative D does not represent an unacceptable loss of motorized routes.	
Colorado Offroad Trail Defenders	*Highest value routes are to overlooks. We specifically ask for BLM to keep open all routes to overlooks. We specifically ask BLM to keep all routes in the Funtreks Guide to Moab, UT Backroads and 4-Wheel Drive Trails.*	Overlooks were considered in evaluating the purpose and need for routes. All of the action alternatives have routes to overlooks among their designated routes. Route specific comments concerning the routes described in the Funtreks guidebook are contained in the route-by-route chart.
Colorado Offroad Trail Defenders	*Looking Glass Road to Anticline Overlook (in book) – please keep roads B133 and B132 (guidebook pages attached).*	Roads B132 and B133 are designated in all alternatives.
Colorado Offroad Trail Defenders	*Kamikaze (in book) – consists of D1506 and D3041. All action alternatives keep the main trail open, but Alternatives B and C would close side spur D3041, which leads to a good overlook.*	Route D3041 is discussed in the route-by-route chart. Route 1506 is open in all action alternatives.
Colorado Offroad Trail Defenders	*Canyonlands Overlook (in book) – consists of D0605 and D2740, as well as side spurs. Action alternatives close several small side spurs, including D1407, D2401 and D1849. I have not driven these, but Google Earth shows that they are used. (Note: these spurs are not in the book)*	The routes closed in some of the action alternatives are discussed in the route-by-route chart. It should be noted that examination on Google Earth is not always indicative of the on-the-ground state of a linear feature, nor of its purpose and need.
Colorado Offroad Trail Defenders	*Boxcar Butte (in book) – consists of roads B106, D0614, D0615, D1515, D0621, D2742 and D0624. The route is known for scenic views and challenging obstacles. All alternatives keep the main route open, but several scenic side spurs are closed, including D0616, D1516, D4825, D0610, D1521, D1522 and D1523. Each of these side routes offer unique experiences and great viewpoints and should be kept open.*	The referenced routes are discussed in the route-by-route examination of comments. The BLM contacted the author of *Funtreks*. He confirmed that the "side spurs" are shown only for navigational purposes. He did not drive most of the side spurs and his inclusion of them on the map does not imply any particular use for the routes.
Colorado Offroad Trail Defenders	*Missing Inventory: The end of D1830 (in Shafer Basin) appears to be missing. The route does not end as shown on the map, but continues to a scenic overlook. I have not personally been to the end of this route, but my friends have (photos attached). The route is lightly used and faint, but clearly visible in Google Earth.* *We ask that BLM designate the full length of D1830 and also keep D1831 (in the wash below it) as open for motorized travel (this route is closed in B and C but left open in D).*	The 'end' of D1830 was not designated in the 2008 Travel Plan accompanying the RMP. The route was determined to be a linear feature made during the building of a fence and then used for a horse stampede scene in a movie. It was not designated as a route for public use. Only routes designated in the 2008 Travel Plan (Alternative A) are under consideration in the current effort. The 'end' of D1830 has been closed since 2008 and the BLM has not received a request for its designation. The disposition of Route D1831 is discussed in the route-by-route chart.

Name	Public Comment	BLM Response
Colorado Offroad Trail Defenders	*No routes should be closed to favor non-motorized recreation in the name of "user conflict". That phrase refers to the subjective preference of non-motorized users who are unwilling to share. BLM should ignore any claims of "user conflict" alleged to exclude motorized users.*	User conflicts may be subjective, but these conflicts are real in people's minds. User preferences for one type of recreation or another are equally subjective, but nonetheless real factors. BLM Manual 1626: (Travel and Transportation Management) recognizes user conflict as a factor to be reduced through travel planning actions. 43 CFR 8342.1 (Designation Criteria) states: "areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands".
Marsh	*I would like routes D1516 and D3041 reconsidered. I travelled them on November 14, 2020; they had been used and there was no authorized off-road use off of them. These two spurs are offshoots of the Boxcar and Kamikaze routes which are widely publicized trails. Both provide spectacular overlooks; D1516 in particularly has a stunning view of Hatch Wash.* *Most of the other routes we looked for that were slated for closing could not be found – they had ceased to be used and were overgrown to the point that driving them was pointless. We did not have time to look for all of them. I request that D1516 and D3041 be open in the chosen alternative.*	The two routes in question are discussed in the route-by-route chart. The BLM appreciates the on-the-ground report on the value of the two routes requested, as well as the report that many other routes designated in Alternative A had ceased to be used and were overgrown at the time of the commenter's field trip.
McIntyre	*I request Alternative D (if we cannot keep Alternative A). Alternative D allows maximum OHV use. Even people who go there (Canyon Rims) for quiet will still need to drive there. Do not continue to close lands.*	The commenter's desire to see Alternative D chosen is noted. If routes are not designated, the lands surrounding those routes will not be closed to the public. All action alternatives designate a network of routes.
Utah Public Lands Policy Coordinating Office (PLPCO)	*The State commends the BLM on a well-thought out TMP. The State supports Alternative D and encourage the BLM to select it. Many of the State's concerns are with Alternative B, as it will result in unnecessary closures harmful to the State's and its citizens ability to use, access and benefit from federal lands.*	PLPCO's endorsement of Alternative D, which designates 246 miles of route, is noted. Alternative C designates 226 miles of route and Alternative B designates 197 miles of route. The BLM acknowledges that Alternative B is the most restrictive to OHV use.
PLPCO	*The range of alternatives is sound, logical and provide a sustainable travel and transportation network.*	Each of the alternatives is designed to provide a travel and transportation network within the goals of that alternative (see Section 2.2 of the EA).
PLPCO	*Closing routes because adjacent areas are composed of lands with wilderness characteristic (LWC) is inappropriate and contrary to Congressional intent and FLPMA*	The Settlement Agreement specifically states that "BLM will consider in the NEPA document at least one proposed alternative route network that would not designate for ORV use any route where BLM has determined that such use may "damage", 43 CFR 8342.1 BLM-inventoried wilderness

Name	Public Comment	BLM Response
		characteristics." (2017 Settlement Agreement, page 12) Alternative B meets this court-ordered requirement.
PLPCO	*The state objects to analysis of "illegal motorized encroachments", especially into lands with wilderness characteristics. Any concerns of encroachment into LWC should not be identified in the EA; these concerns are an enforcement issue and should not be a determining consideration in travel management. The majority of users follow rules and regulations; enforcement should be addressed at the implementation phase.*	"Illegal motorized encroachment" is listed as a scoping issue under Lands with Wilderness Characteristics (Appendix D: Scoping Details). The Environmental Effects Analysis (Section 3.2.2.2 of the EA) for Lands with Wilderness Characteristics does not include analysis of illegal motorized use off designated routes.
PLPCO	*The State notes that, in Alternative B, routes within 0.25 miles of cultural sites are removed in order to protect them. The BLM should consider ways in which these routes could remain open with mitigation that would reduce the risk to cultural resources (fencing, signing etc.) These mitigation efforts could increase awareness and understanding of cultural resources.*	Routes were not included in those designated in Alternative B for a variety of reasons; cultural resources was but one of these reasons. As stated in Section 2.4, "Alternative B emphasizes protection of wildlife habitats, natural resources, ecosystems, and landscapes. It also represents the alternative from the 2017 Settlement Agreement that would most reduce adverse effects to BLM-inventoried wilderness characteristics by closing routes in Lands with Wilderness Characteristics (LWCs). OHV use is accordingly more constrained under this alternative."
PLPCO	*The state does not view routes as an impact to wildlife and notes that the Hatch pronghorn herd has increased between 2007 and 2017. Routes in bighorn and pronghorn habitat provide access for habitat and wildlife management, as well as for hunting.*	The state's view is noted. Wildlife is discussed in sections 3.2.7, 3.2.8, 3.2.9, and 3.2.10. The Canyon Rims TMP is intended for public travel. As stated in Section 2.1.4, "as the need arises, and in accordance with applicable regulations, any route (including those that are OHV-Closed) could be made available to authorized or administrative uses."
PLPCO	*Secondary access to private and/or SITLA landholdings are closed in the action alternatives. These routes should be kept open, even if only to authorized users.*	The Canyon Rims TMP governs public OHV travel. The EA states in Section 3.1.3 that ROW considerations can be undertaken in the future. And, as stated in Section 2.1.4, "as the need arises, and in accordance with applicable regulations, any route (including those that are OHV-Closed) could be made available to authorized or administrative uses."
PLPCO	*The EA refers to "safe and diverse recreation opportunities" but does not define this term. Evidence is not provided as to why Alternative A is not safe and diverse.*	The term "safe and diverse" is undefined in Appendix D, where scoping issues are listed; it has been deleted.
PLPCO	*Access to range improvements is provided in Alternatives C and D; however, the BLM should provide language that provides "administrative access to range improvements using any equipment necessary to continue to maintain and improve range improvements." Domestic livestock grazing is a major use. The majority of roads in the planning area*	The Travel Plan provides designations for the public OHV use (see Section 1.1). Administrative use is granted to authorized users, such as grazing permittees. Throughout the development of this TMP, some routes not designated for public OHV use "remain available for existing authorized or administrative uses. Some of these routes provide access to authorized facilities (i.e., stock tanks and ponds, corrals, communication sites, etc.)" see

Name	Public Comment	BLM Response
	are important to range operations. The TMP contains "rugged wilderness study areas and lands with wilderness characteristics that must continue to be open for livestock production."	(Section 2.1.4). The mileage of these routes varies by alternative and all administrative use routes are shown on the alternative maps accompanying the EA. Thus, the designation of routes for public OHV use does not affect the ability of grazing permittees to access or improve range facilities. Grazing permittees work with BLM range staff to maintain and improve range improvements. This process remains independent of the Travel Plan for the recreating public. The Canyon Rims TMP does not contain Wilderness Study Areas.
Ride with Respect. Friends for Wheelin'. Trails Preservation Alliance (RwR et al)	*Only Alternatives A and D are acceptable options for providing a modest quantity and quality of off-highway vehicles recreation opportunities.*	The commenters' preference for Alternatives A and D are noted.
RwR et al.	*The BLM should consider all motorized travel routes, not just those designated in the 2008 travel plan (Alternative A). San Juan County did not "claim" all of the roads that it recommended be available for motorized travel by the public. There are many other roads in the area as shown on aerial imagery. In addition, there are wash bottoms, slickrock and narrower trails for ATV or motorcycle use that were not included. Thus "hundreds of miles of route" were not considered in the RMP and thus not in Alternative A.* *Alternative D excludes 'ten times" the 26 miles of route that are excluded in that alternative.*	The 2008 Travel Plan (Alternative A in this effort) considered routes that were found to have a purpose and need by San Juan County. A detailed description of the process is contained in Appendix N of the 2008 RMP, specifically on pages N-15 – N-17. The BLM was presented with "supplemental" GIS data (apart from San Juan County's) from Mr. Ber Knight that covered the linear features (primarily old seismic lines) referred to by the commenters. This data was shared with San Juan County; the county was aware of this data, but chose not to add it to its inventory/travel plan. BLM and San Juan County determined that no compelling evidence had been brought forward that these linear features had purpose and need as travel routes (and, in some cases, that the route even existed on -the-ground). A recent (November 2020) telephone conversation with the San Juan County Planner confirmed this understanding. Wash bottoms and open slickrock are not travel routes in and of themselves; no data was received on the "narrower trails" referred to by the commenter, nor were any of these designated in the 2008 RMP Travel Plan which now forms Alternative A. BLM personnel with on-the-ground experience in the area are unaware of these "trails". Linear features present in aerial imagery are often not findable on-the-ground, nor do they necessarily constitute a "road," let alone demonstrate purpose and

Name	Public Comment	BLM Response
		need. In the Canyon Rims area, the majority of these linear features are remnants of past seismic projects. The Moab RMP outlined a process to add routes to the Travel Plan (TRV-3, page 126, Moab RMP); an Instruction Memorandum issued by the District Manager (Instruction Memorandum No. UTY000-2010-001) further delineated the process. Since 2008, no individual or group has asked for a route to be added to the Travel Plan in the Canyon Rims TMP. This is further indication that the linear features referred to have no purpose and need. The current travel planning effort starts with Alternative A, which constitutes the routes vetted and designated in 2008. The linear features identified by the commenters were considered during that process and not designated because they lacked purpose and need.
RwR et al.	*There are 26 miles of route that were not found on the ground by the BLM, but these routes may have received recent use, may have no current value because they are unmarked, may have future value and may not have been used because their use would cause adverse impacts.*	The routes not found on the ground by BLM were shown not to have received use at that point in time. (For many of them, the presence of vegetation indicated that the routes had not been used for some period of time). The lower level of use that was seen indicates that the routes have a lower (if not none) purpose and need in comparison with the resource values potentially being impacted by designation of the road. The comment is speculative with no specific details provided. Should a route be required at a future point, there is a process for adding routes to the Travel Plan on a case-by-case basis (TRV-3, Moab RMP).
RwR et al.	*Alternative C excludes routes to unique viewpoints, routes that provide connectivity and routes that are part of the San Juan OHV Trail System. These routes do not have negative impacts such that they should not be designated. If these routes are not designated, it could result in increased traffic on the remaining routes.*	Although the commenters do not delineate specific routes, route-by-route comments and responses can be found in the accompanying chart. Communication with the San Juan County Planner indicates that Alternative C does not exclude routes that are part of the San Juan County OHV Trail System.
RwR et al.	*Alternative A is already restrictive, but we would accept Alternative D in the spirit of the 2017 settlement agreement.*	The BLM notes the comment.
San Juan Public Entry and Access Rights (SPEAR)	*Alternative A is of no concern to SPEAR; Alternative B is of great concern, especially closures around the Box Car Bridge route (shown on accompanying map). There is no reason to close these side routes other than to take away access by OHV riders to overlooks. Alternative C has a closure to an overlook near the Anticline Overlook (shown on accompanying map). Alternative D is the most*	The BLM route designation process takes into account many resources. Those that are particularly apropos to overlooks could include the presence of raptor nests. The specific routes requested by SPEAR are addressed in the route-by-route chart accompanying these comments.

Name	Public Comment	BLM Response
	acceptable of the action alternatives. See route specific table for routes of concern.	

K.2: Public Comments Prompting Route Re-Evaluation

Table K.3: Route-Specific Comments and BLM Responses

Route-Specific Comments and BLM Responses – Canyon Rims TMP			
Comments Asking for Specific Routes to be Deleted (all comments from SUWA et al.)			
Responses common to each of the routes are listed below: 1. All routes considered for designation provide an OHV recreation opportunity of some type. 2. The Purpose and Need for each of the routes was supported by the San Juan County and PLPCO representatives who worked as cooperators during the route evaluation meetings. 3. Any designated route could potentially provide an entrée to illegal off road travel. The Travel Plan does not analyze illegal activity. The BLM assumes that OHV users will stay on the designated routes. The Canyon Rims TMP area receives limited OHV use and has very little off-route activity. It is not generally considered a primary OHV destination. 4. The commenter provides evidence of level of use via photographs. Photographic documentation in and of itself is not conclusive evidence of level of use. Unless a route is completely invisible, factors such as topography, soil composition, vegetative regime, season of the year and recent weather events can affect the perception of relative use on any given day. Overall OHV use in the entire Canyon Rims area is quite low; the Anticline Road (the artery accessing many of the non-maintained roads) see an average of eight vehicles per day, only a few of which go off that artery to access the D roads in question. 5. The routes in question are distributed across alternatives in the EA; each of the action alternatives provides for a different management emphasis. Alternative B is the most protective of resources; under this alternative, all routes within lands determined by the BLM to possess wilderness characteristics have been proposed as OHV-closed. Similarly, Alternative D emphasizes access, so routes that are only designated in Alternative D are intended to provide maximum access.			
Route #	**Alternatives: OHV-Open in Draft EA**	**Public Comment** *(italics denote exact quote from commenter)*	**BLM Response**
D0606b	A,B,C,D	*BLM must add information about whether a route is no longer being used, is revegetating or is impassable to motorized vehicles.*	Based on this comment, the BLM reconsidered this 0.98 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that the route provides connectivity between D1629 and D2403, as well as the primary access to several side routes (D1636, D1637 and D1638, which all provide views into Lockhart Basin.) D0606b also terminates in a view over Lockhart Basin and that fact has been added to the route report for D0606b.
D0609b	A,B,C,D	SUWA provides photos with no text.	Based on this collection of submitted photos, the BLM reconsidered this 2.69 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that it provides access to the rim of Hatch Wash from the Eight Mile Rock Road on the north side of Three Mile Wash. The route does provide access to

			the abovementioned rim of Hatch Wash, and this information has been added to the route report for D0609b. The route also provides access to State Land.
D0616a	A,B,C,D	SUWA provides photos of this route with no text.	Based on this collection of submitted photos, the BLM reconsidered this 3.41 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that the route does provide connectivity between D610 and D615 on the east side of the Eight Mile Rock road. In addition, D0616a provides access to the geological feature known as the Hanging Rincon (adjacent to Hatch Wash). This information has been added to the route report for D0616a.
D0616b	A, C, D	SUWA provides photos of this route with no text.	Based on this collection of submitted photos, the BLM reconsidered this 0.62 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route found that the route provides the only view into the Hanging Rincon of Hatch Wash (with D0616b, above). The information on this destination has been added to the route report for D0609a. Reevaluation also confirmed that the route is part of the San Juan County OHV system and is utilized for both dispersed camping and scenic backcountry OHV viewing.
D0621	A,B,C,D	*Route D0621 should be closed to motorized vehicle use beyond the old line cabin. Beyond that point, it is a narrow two-track that is not being used regularly. It is redundant with other routes that lead to canyon overlooks. It is in Mexican spotted owl critical habitat and pronghorn habitat. It also weaves in and out of BLM-identified lands with wilderness character. To preserve the area's wilderness character and minimize impacts to wildlife habitat, vegetation and soil, BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered 10.54 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that D0621 provides access to SITLA lands as well as to several range developments. Further examination of the route also confirmed that it is also used by the public on a semi-regular basis for scenic touring and dispersed camping. Information added to the route report for D0621 includes that the route provides views into Hatch Wash and its confluence with Kane Creek Canyon and ends at an overlook of Trough Springs Canyon. The route also provides the hiking access to Hatch Wash via Trout Water Canyon; this information was added to the route report. The route is shown on the Latitude 40 (recreation map) as a scenic drive and is given the name of the "Benchlands Road." In addition, as shown on the route report, the route is part of the San Juan County OHV system. The BLM acknowledges that the route is within pronghorn habitat, although it is not within lands recognized by the BLM as possessing wilderness characteristics. The route is within modeled MSO habitat.
D0624	A,B,C,D	*Route D0624 extends 5.37 miles from Hatch Point Road toward the canyon rims. After about 2.7 miles, the route becomes difficult to pass and is not being used regularly. BLM should close the route to motorized vehicle use at about*	Based on this comment, the BLM reconsidered this 5.37 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that the route provides the only access to one SITLA section and an alternative access to another SITLA section. The route is part of the San Juan County OHV system. The route leads to a viewpoint of Trough Springs Canyon, and this information has been added

		the 2.7 mile mark. It is a logical stopping point just before climbing slickrock is required to proceed along the route. Beyond that point, the route is starting to reclaim, with vegetation in the roadway. The route also cuts through pronghorn habitat. There are other, nearby routes that provide canyon overlook views.	to the route report for D0624. No resource concerns were found that would dictate the closure of this connecting route. It should be noted that the photos provided by SUWA show regular and continuous use of D0624.
D1476	A, ~~C,~~ D *Removed from C as a result of reexamination*	*This route, extending from Rustlers Road through BLM-identified lands with wilderness character, is an old two track. It is reclaiming with vegetation in the roadway. In places it is barely visible on the ground. It has no real purpose or need. It is redundant with nearby routes that lead to canyon overlooks. Designating this route would impact soils, vegetation and wilderness values. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 1.58 mile long route. The BLM has concluded that its determination was not accurate and has changed the proposed designation under the alternatives after consultation with members of the IDT. Reevaluation of the route led to the decision to remove it from Alternative C due to its lack of purpose and need, its redundancy, and the fact that it is largely reclaiming, as shown in past monitoring reports (available on the project's ePlanning website). The route report has been edited to reflect this reconsideration. Alternative D, with its greater emphasis on access, retains the route as providing connectivity and providing an OHV backcountry recreation opportunity.
D1484	A,B,C,D	*Route D1484 is a two-track that is rarely used. The light use that is occurring on the route is crushing vegetation and soil crust that have formed in the roadway. The route serves no purpose. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.75 mile long route. BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that it provides access to both State and private land. Its inclusion in all three action alternatives reflects its access function.
D1497	A, D	*Route D1497 is two track extending through BLM-identified lands with wilderness character. It is reclaiming. There is vegetation in much of the roadway. Much of the route is difficult to locate on the ground. It is redundant with route D1495. To preserve the area's wilderness values and minimize impacts to vegetation and soil, BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 1.77 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that D1497 provides connectivity between routes D1495 and D608. The route is included only in the maximum access alternative (D) due to the presence of sensitive resources, as shown in the route report.
D1498	A,B,C,D	*Route D1515 is a lightly-used two track that is starting to reclaim in portions.*	Based on this comment, the BLM reconsidered this 0.7 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed

		There is some soil crust in the middle of the roadway. The route is in Mexican spotted owl critical habitat. There are other, nearby routes that provide access to canyon overlooks; this one is unnecessary. To preserve the areas wilderness character and minimize impacts to soils, vegetation and wildlife habitat. BLM should remove this route from its motorized travel plan.	designation under the alternatives. Reevaluation of the route confirmed that D1498 provides the only access to the SITLA section along the rim of the Canyon Rims SRMA. Information concerning the views the route affords into Lockhart Basin has been added to the route report. The BLM acknowledges in its route report that use of the route is low; however, it does receive some use as shown in BLM field visits.
D1515	A,B,C,D	*Route D1515 is a lightly-used two track that is starting to reclaim in portions. There is some soil crust in the middle of the roadway. The route is in Mexican spotted owl critical habitat. There are other, nearby routes that provide access to canyon overlooks; this one is unnecessary. To preserve the areas wilderness character and minimize impacts to soils, vegetation and wildlife habitat. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 4.62 mile long route. This process found that the route constitutes the "Boxcar Bridge" bike or jeep trip. The highlight of the trip is to view an arch called Boxcar Bridge. This is one of only two routes in the TMA highlighted in the popular guidebook, *Guide to Moab, UT Backroads and 4-WheelDrive Trails* by Charles Wells, as well as in at least one bicycle guidebook, *Above and Beyond Slickrock* by Todd Campbell. The route is also a featured recreation route on the Latitude 40 map series. The maps and guidebooks demonstrate Purpose and Need for the route. This information about the recreation value has been added to the route report for D1515. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The route is not within lands recognized by the BLM as possessing wilderness characteristics. The route is the *boundary* of the area identified by BLM as possessing wilderness characteristics.
D1516	A, C, D	*Route D1516 is a lightly-used two track extending to the canyon rims. It is reclaiming. There is vegetation in the roadway. It cuts through desert bighorn habitat as well as BLM-identified lands with wilderness character. There are numerous routes to canyon rims overlooks. This one is not necessary. To preserve the area's wilderness values and minimize impacts to soils, vegetation and wildlife habitat, BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 2 mile long route The BLM has concluded that its evaluation is accurate and has not changed the proposed designation under the alternatives. Reevaluation showed that the route is a spur to an overlook off the Boxcar Bridge route and, as such, is valued by some OHV users and that it goes to the end of a prominent peninsula which looks into Hatch Wash. This information has been added to the route report for D1516. The BLM acknowledges that the route is within lands inventoried as possessing wilderness characteristics. Alternative B removes the route from its travel network to minimize impact to LWC and other resources. The route is not within critical bighorn habitat. Alternatives C and D, which emphasize access to a greater degree, maintain the route as part of the network.
D1523	A, C, D	*Route D1523 is a little-used two track. It is in pronghorn habitat, chukar habitat and Mexican spotted owl critical habitat.*	Based on this comment, the BLM reconsidered this 0.88 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that along

		The route is redundant with route D0610 which leads to the same end point. BLM should remove this route from its motorized travel plan.	with D0610, D1523 provides a loop ride along the western edge of Hatch Wash. Thus, rather than being redundant with D0610, it is part of the loop route created by D0610 and D1521. The route is part of the San Juan County trail system. The route is removed from Alternative B, which is most protective of resources, but retained in Alternatives C and D, which give greater importance to access.
D1607	A,B,C,D	*Route D1607 is a two-track traversing the rims of the canyon. It is only lightly used. In portions there is cryptobiotic soil crust within the roadway. The route serves no purpose and is not necessary. The Needles Overlook Road and Rustlers Spur Road provide well-used access to overlooks. The Rustler's Cut Off provides a link between those to overlooks. This route unnecessarily impacts soils, vegetation and wilderness values. It should be removed from BLM's motorized travel plan.*	Based on this comment, the BLM reconsidered this 1.95 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reconsideration of the route showed that it provides access to a view overlooking Indian Creek; information regarding the route's destination has been added to the route report for D1607. It is not within lands inventoried by the BLM as possessing wilderness characteristics; D1607 constitutes the BLM's LWC boundary.
D1608	A,D	*Most of the 0.62 mile route D1608 is a faint two track that is barely visible on the ground. It is reclaiming. There is mature vegetation throughout much of the roadway. This route also serves no real purpose. It does not appear to lead to camping, recreation or a viewpoint. BLM should remove this route from its motorized travel plan to protect vegetation and soil resources.*	Based on this comment, the BLM reconsidered this 0.62 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that it provides a connector with D1607. It is retained only in Alternative D, which emphasizes access; it is not proposed for inclusion in Alternatives B or C.
D1609	A,B,C,D	*Route D1609 extends from the Ruslters Cut Off to a series of camps and then extends NE towards D1608. The portion of the route beyond the camps extending to D1608 should be removed from BLM's travel plan. This portion of the route serves no purpose, is only lightly used and is starting to reclaim*	Based on this comment, the BLM reconsidered this 0.71 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that D1609 provides access to dispersed camps, as well as a connector between D1607 and B168 (the Horsehead Rock B Road). The resource conflicts discussed in the IDT did not outweigh the transportation value such that D1609 was excluded from any of the action alternatives. D1609 constitutes part of the BLM's LWC boundary; the route is not within lands inventoried by the BLM as possessing wilderness characteristics.
D1616	A,B,C,D	*Route D1616 is a lightly-used two track. There are a number of illegal spurs off of this route that are being used for camping. BLM has this entire area posted*	Based on this comment, the BLM reconsidered the 0.8 mile long route. The August 2020 monitoring report on LWC (see report on ePlanning page) showed that the route does receive regular and continuous use. The route is the boundary of an LWC unit. The BLM has concluded that its determination is accurate and has not changed

		as "No Camping". The route is unnecessary. It simply parallels the Needles Overlook Road and is only being used to facilitate illegal camping. BLM should remove this route from its motorized travel plan.	the proposed designation under the alternatives. Reexamination of the route showed that the route provides access to viewpoints into Harts Draw; this information has been added to the route report for D1616. D1616 also provides the only access to D2553 and D2554. The resource conflicts discussed in the IDT did not outweigh the transportation value such that D1616 was excluded from any of the action alternatives.
D1617	A,D	*Route D1617, extending off of Rustlers Road, is a lightly-used two track through BLM-identified lands with wilderness character. There is vegetation and soil crust in the route. The little use that has occurred has led to illegal motorized vehicle use along old seismic lines that are not open for motorized vehicle use. This route is unnecessary. It should be closed to minimize impacts to the area's wilderness values.*	Based on this comment, the BLM reconsidered this 0.33 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that it connects to D1618. It also provides access to a campsite. Because of the potential impact to LWC and other resources, the route is removed from all action alternatives but Alternative D, which emphasizes access.
D1618	A,D	*Route D1618 is an old seismic line in BLM-identified lands with wilderness character. The western end of the route is significantly reclaimed. It is barely visible on the ground, with vegetation and soil crust covering the route. While there has been some use on the eastern end of the route, it is not significant and there is vegetation in the roadway. To the extent that D1618 is being used, it is facilitating illegal motorized use that appears to continue around Horsehead Rock. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.27 mile long route. The August 2020 LWC monitoring report (see ePlanning entry for report) shows that the route does receive some use. The BLM has concluded that its evaluation is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that the Purpose and Need for the road is to access dispersed campsites. Among the action alternatives, the route is designated only in Alternative D, which most emphasizes access; it is not included in Alternatives B or C because of its impact to resources including LWC.
D1619a	A, D	*BLM must add information about whether a route is no longer being used, is revegetating or is impassable to motorized vehicles.* The specific route report has no additional text.	Based on this comment, the BLM reconsidered this 0.82 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that the route provides an alternative link to B170. Among the action alternatives, the route is designated only in Alternative D, which most emphasizes access.
D1619b	A,~~C~~,D *Removed from C as a*	SUWA presents photos and a map with no text.	Based on this comment, the BLM reconsidered this 0.62 mile long route. The BLM has concluded that its determination was not accurate and has changed the proposed designation under the alternatives after consultation with members of the IDT. Reevaluation of the route led to the decision to remove it from Alternative C due to

	result of this reexaminatio n		its lack of purpose and need, its redundancy, and the fact that it is largely reclaiming, as shown in past monitoring reports (available on the project's ePlanning website). The route report has been edited to reflect this reconsideration. Alternative D, with its greater emphasis on access, retains the route as providing connectivity and providing a OHV backcountry recreation opportunity.
D1622b	A,~~C,~~D *Removed from C as a result of this reexaminatio n*	*BLM must add information about whether a route is no longer being used, is revegetating or is impassable to motorized vehicles.* SUWA presents photographs of the route without explanation.	Based on this comment, the BLM reconsidered this 1.03 mile long route. The BLM has concluded that its determination was not accurate and has changed the proposed designation under the alternatives after consultation with members of the IDT. Reevaluation of the route led to the decision to remove it from Alternative C due to its lack of purpose and need, its redundancy, and the fact that it is largely reclaiming. The route report has been edited to reflect this reconsideration. Alternative D, with its greater emphasis on access, retains the route as providing connectivity and providing a OHV backcountry recreation opportunity. Reevaluation of the route confirmed that it traverses the northside of Horsehead Rock and approaches the rim of Lockhart Basin.
D1623	A	*Route D1623 is a spur off of Route D1622. This route is redundant and unnecessary. It serves no purpose. BLM should remove this route from its motorized travel network.*	Based on this comment, the BLM reconsidered this 0.31 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D1623 in any of the action alternatives.
D1624	A	*Route D1624 is another spur off of D1622. It serves no purpose and is not getting use. It is redundant and unnecessary. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.18 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D1624 in any of the action alternatives.
D1625	A,~~C~~,D *Removed from C as a result of this reexaminatio n*	*Route D1625 is likely an old seismic line. It is in BLM-identified lands with wilderness character and is reclaiming. There is vegetation in the roadway. It is unnecessary and serves no apparent purpose. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.89 mile long route. The BLM has concluded that its determination was not accurate and has changed the proposed designation under the alternatives after consultation with members of the IDT. Reevaluation of the route led to the decision to remove it from Alternative C due to its lack of purpose and need, its redundancy, and the fact that it is largely reclaiming. The route report has been altered to reflect this reconsideration. Alternative D, with its greater emphasis on access, retains the route as providing connectivity and providing a OHV backcountry recreation opportunity. Reevaluation of the route confirmed that it does access the north side of Horsehead Rock.
D1630	A,B,C,D	*Route D1630 extends .95 miles from D0605. It is not being used and is starting to reclaim. The route serves no real purpose; it is redundant with other, nearby routes that lead to the canyon rims. To the extent that it is being used, it*	Based on this comment, the BLM reconsidered this 0.95 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reconsideration of the route confirmed that it provides access to the rim of Lockhart Basin and affords a scenic driving

		is facilitating illegal motorized use along the canyon rims. BLM should remove this route from its motorized travel plan.	opportunity; information on the viewpoint has been added to the route report for D1630. The route is not within lands inventoried by the BLM has possessing wilderness characteristics.
D1636a	A,B,C,D	SUWA presents photos of D1636a with no explanation.	Based on this comment, the BLM reconsidered this 0.49 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reconsideration of the route showed that it provides OHV access to the rim of Lockhart Basin and provides a scenic driving opportunity; the route ends at a viewpoint into Lockhart Basin. The route report has been augmented with the information regarding the viewpoint.
D1637	A,C,D	*Route D1637 extends along the canyon rims. It is in desert bighorn habitat. The route is barely visible on the ground and is not receiving much use. The route is unnecessary. There are other routes available to access canyon rims. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reevaluated this 0.3 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reconsideration of the route confirmed that the route does provide a scenic driving opportunity as the route ends at a viewpoint into Lockhart Basin. This information has been added to the route report for D1637.
D1638	A,C,D	*D1638 is a short route to the canyon rims. The route is in desert bighorn habitat. It is not receiving much use. D1638 is redundant with other routes that access the canyon rims. To preserve the area's wilderness values and minimize impacts to soils, vegetation and wildlife habitat, BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.11 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reconsideration of the route showed that the route does provide a scenic driving opportunity as it ends at a viewpoint into Lockhart Basin. This information has been added to the route report for D1638.
D1639	A, D	*D1639 is a short spur route. It is redundant and unnecessary. There are other routes that provide access to the canyon rims. BLM should remove this route from its motorized travel plan. The cluster of routes in this area are facilitating illegal motorized vehicle use along the canyon rims further impacting wilderness values, soils, vegetation and wildlife habitat.*	Based on this comment, the BLM reconsidered this 0.23 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reconsideration of the route showed that it does access the rim of Lockhart Basin and provides a viewpoint. This information has been added to the route report for D1639. The BLM realizes that many of the routes in this area do provide access to the rim of Lockhart Basin and for this reason, the route is removed from all but the action alternative most supportive of access (Alternative D).
D1640	A, D	*Route D1640 is another redundant and unnecessary route in this cluster of routes*	Based on this comment, the BLM reconsidered this 0.09 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed

		on the rims above Lockhart Basin. It is not receiving much use and does not appear to serve any purpose. It is in desert bighorn habitat and Mexican spotted owl critical habitat. To preserve the area's wilderness values and minimize impacts to vegetation, soils and wildlife habitat, BLM should remove this route from its motorized travel plan.	designation under the alternatives. Reexamination of the route showed that it provides a viewpoint into Lockhart Basin, and that information has been added to the route report for D1640. The BLM realizes that many routes in this area provide access to the rim of Lockhart Basin and for this reason, the route is removed from all but the action alternative most supportive of access. The route is not within lands determined by the BLM to possess wilderness characteristics.
D1641	A	*D1641 is among a cluster of old seismic lines in this area. It is largely reclaimed and not easily visible on the ground. It is in desert bighorn habitat and Mexican spotted owl critical habitat. It is unnecessary and serves no apparent purpose. There are other routes that provide access to the canyon rims. Retaining this route would facilitate illegal motorized use along the canyon rims. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.3 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D1624 in any of the action alternatives.
D1642	A	*Route D1642 is among the cluster of old seismic lines in this area. It is largely reclaimed and barely visible on the ground. There is vegetation and soil crust in the roadway. Like the other routes in this cluster, it serves no real purpose and is redundant with other routes that provide access to the canyon rims. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.35 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D1642 in any of the action alternatives.
D1643	A, D	*D1643 is among a cluster of old seismic lines. There is vegetation in the roadway and it is not getting used. It is in desert bighorn habitat and Mexican spotted owl critical habitat. It is redundant with other routes that provide access to the canyon rims. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.1 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that it does access the rim of Lockhart Basin and this information has been added to the route report for D1643. D1643 is included only in Action Alternative D, which most emphasizes access.

D1847	A, D	*Route D1847 is a reclaiming two-track. It is barely visible on the ground as there is significant vegetation in the roadway. It serves no purpose and is redundant with D1844. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.23 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that D1847 provides a connector from the Canyonlands Overlook route to the Kane Springs Overlook route. It also provides secondary access to SITLA land, but is somewhat redundant with D0605. For that reason, it is designated only in the action alternative that most emphasizes access.
D1849	A, D	*Route D1849 is a .63 mile spur off of route D2740, extending into BLM-identified lands with wilderness character. It is unneccessary and serves no real purpose. It roughly parallels route D2740. To minimize unnecessary impacts to the area's wilderness values and remove redundant motorized vehicle routes, BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reevaluated this 0.63 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that D1849 accesses the rim of Canyon Rims and overlooks the Colorado River, providing a recreation opportunity for OHV users; this information has been added to the route report for D1849. The route does traverse BLM inventoried LWC and is included only in Action Alternative D, which emphasizes access over protection of resources.
D2401	A	*Route D2401 extends into BLM-identified lands with wilderness character. It is barely visible on the ground; there is vegetation and soil crust in the roadway. It is redundant with route D2740 and serves no real purpose. It is also in Mexican spotted owl critical habitat and desert bighorn habitat. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.32 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2401 in any of the action alternatives.
D2403	A,B,C,D	*Route D2403 is among a cluster of old seismic lines. It is a two track that is not receiving much use. Like the other routes in this cluster, it is unnecessary and redundant. There are other nearby routes that provide access to the rims of the canyon. It is in desert bighorn habitat and Mexican spotted owl critical habitat. It ends abruptly without any defining endpoint thereby potentially facilitating illegal motorized use beyond the designated route. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.38 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that it does bring drivers closer to the rim of Lockhart Basin and provides a good viewpoint; this information has been added to the route report for D2403.

D2415		No information provided (only map of Route D0621 is shown)	There is no route D2415. The entry is blank and this appears to have been submitted in error.
D2416	A, D	*Route D2416 is a short spur off of D0621. It is entirely within BLM-identified lands with wilderness character. It serves no purpose, it simply leads to another view of the canyon. BLM should remove this redundant route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.06 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it does provide another view of the canyon and this information has been added to the route report for D2416. D2416 is included only in the action alternative that most supports access (D). The route is within lands identified by the BLM as having wilderness characteristics; it is excluded from Alternatives B and C.
D2495	A, C, D	*D2495 is a short spur route off of D1495. It is not receiving much use and serves no apparent purpose. It should be removed from BLM's motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.13 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that it provides a connector between D1497 and D1495.
D2496	A, D	*Route D2496 is a short spur route. It is reclaiming and nearly completely covered with vegetation. The route is unnecessary and has no purpose. It should be removed from BLM's motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.26 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that D2496 provides a connector between D1497 and D0608. It is the primary access to a range facility. As such, the route is limited to administrative use in Alternatives B and C and is open to the public only in Alternative D, which most emphasizes access.
D2545	A,B,C,D	*Route D2496 is a short spur route. It is reclaiming and nearly completely covered with vegetation. The route is unnecessary and has no purpose. It should be removed from BLM's motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.06 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route confirmed that D2545 is a very short "triangle" type connector between B0170 and D1707 near Lockhart Overlook. Its purpose is that of a connector; use would continue on the route even if it were to be closed, as people would seek to connect the two routes.
D2546	A, D	*Route D2546 is a short spur off of D1607. It cuts into BLM identified lands with wilderness character to lead to the canyon rim. It is redundant with Route D1609 which provides a similar, nearby view of the canyon. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.08 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that D2546 is a spur to the canyon rim. Route D2546 does cross BLM identified lands with wilderness characteristics. It is included only in Action Alternative D, which emphasizes access.
D2547	A	*Route D2547 is a short spur off of D1607. It cuts into BLM identified lands with wilderness character. It is redundant with Route D1609 which provides a similar, better view over the rims of the canyon. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.03 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2547 in any of the action alternatives.

D2548	A	*D2548 is a .13 mile route extending from Rustlers Cut Off. It is reclaiming and barely visible on the ground. There is vegetation in the roadway. It serves no purpose. BLM should remove this short route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.13 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2548 in any of the action alternatives.
D2550	A	SUWA presents a map of D2550 with no text and no photos.	Based on this comment, the BLM reconsidered this 0.04 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2550 in any of the action alternatives.
D2555	A,B,C,D	*Route D2555 extends from Route D1630 toward the rims of the canyon above Lockhart Basin. The route is only lightly used. Like Route D1630, it is redundant with other, nearby routes that lead to the canyon rims. It is also facilitating illegal motorized use. To preserve the area's wilderness values, BLM should remove this route from the motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.26 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reevaluation of the route showed that the route provides access to the rim of Lockhart Basin and is used for scenic driving opportunities; this information has been added to the route report for D2555. The route is not within lands that the BLM has identified as possessing wilderness characteristics.
D2557	A	*Route D2557 is among a cluster of old seismic lines. It is reclaiming and barely visible on the ground. Like the other routes in this cluster, it is unnecessary and redundant. This route does not lead to any overlook or point of interest. It simply ends abruptly. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.19 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2557 in any of the action alternatives.
D2599	A	*This is the Trough Springs hiking trail. According to BLM's Moab Resource Management Plan, the Trough Spring Canyon Trail should be designated for hiking use only. See RMP at 89. BLM should remove this route from the motorized trail plan and designate it accordingly.*	Based on this comment, the BLM reconsidered this 0.51 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2599 in any of the action alternatives. D2599 does constitute the beginning section of the Trough Springs hiking trail, and this information has been added to the route report for D2599.
D2619	A	*Route 2619 is a short .04 mile spur off of D2620. Like Route D2620, it does not receive much use. It has no real purpose and is redundant with other routes in the*	Based on this comment, the BLM reconsidered this 0.04 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D2619 in any of the action alternatives.

		area. It is in BLM identified lands with wilderness character. BLM should remove this route from its motorized travel plan.	
D2620	A,B,C,D	*Route D2620 is a narrow route that extends along the canyon rims near Canyonlands Overlook. It is rarely used. There is vegetation and soil crust in the roadway. Portions of the route are barely visible on the ground. It traverses through BLM identified lands with wilderness character as well as Mexican spotted owl critical habitat and desert bighorn habitat. It serves no real purpose and is redundant with Route D2740 which provides access to the canyon rims. To preserve the area's wilderness values and minimize impacts to soils, vegetation and wildlife habitat, BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 1.01 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that D2620 accesses a named overlook (Kane Springs Overlook, Latitude 40 map, *Moab West*); this information has been added to the route report for D2620. This route is also the only access to a SITLA section (upon which the named overlook is situated). The route is not within lands identified by the BLM as possessing wilderness characteristics.
D4817	A	*Route D4817 appears to be an old seismic line. It is receiving no use. There is vegetation and mature soil crust throughout the route. It is barely visible on the ground. It serves no purpose. It also cuts through BLM-identified lands with wilderness character, pronghorn habitat, chukar habitat and Mexican spotted owl critical habitat. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.74 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D4817 in any of the action alternatives.
D4818	A,C,D	*D4818 appears to be an old seismic line. It is reclaiming. There is vegetation and soil crust throughout the roadway. It is not being used. It does not serve any purpose. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 1.15 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it is the only access to a tract of private land on the north side of Three Mile Creek. D4818 is most probably used only sporadically as private lands needs arise.
D4819	A	*Route D4819 is an old seismic line. It is reclaiming. There is vegetation and soil crust throughout the roadway. It is not*	Based on this comment, the BLM reconsidered this 0.55 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed

		being used and serves no purpose. There are nearby routes that provide access to the canyon rims. It cuts through BLM identified lands with wilderness character, pronghorn habitat, chukar habitat and Mexican spotted owl habitat. BLM should remove this route from its motorized travel plan.	designation under the alternatives. The BLM does not include D4819in any of the action alternatives.
D4821	A	*Route D4821 is another short spur off of route D0609 that appears to be an old seismic line. It is significantly reclaimed to the extent that it is barely visible on the ground. There is vegetation and soil crust in the roadway. The route serves no purpose. It is also in pronghorn habitat, chukar habitat and Mexican spotted owl critical habitat. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.18 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D4821 in any of the action alternatives.
D4822	A,C,D	*Route D4822 is a short spur off of route D0609. It appears to be an old seismic line. It is reclaiming and not being used. There is vegetation and soil crust in the roadway. The route is in BLM-identified lands with wilderness character, pronghorn habitat, chukar habitat and Mexican spotted owl critical habitat. The route also serves no purpose. There are other, nearby routes that provide access to the canyon rims. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.17 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that it does provide opportunity for scenic driving as it accesses an overlook into Hatch Wash; this information has been added to the route report for D4822. The route is within lands determined by the BLM to possess wilderness characteristics.
D4823	A	*D4823 is a short spur route off of D1516. It is not seeing any use and is significantly reclaimed. There is vegetation and mature soil crust in the purported roadway. It is in BLM identified lands with wilderness character as well as habitat for both the desert bighorn and the chukar. BLM should remove this spur route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.18 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D4823 in any of the action alternatives.

D4824	A	*Route D4824 extends from D1516. It is not getting any use and is significantly reclaimed. There is vegetation and mature soil crust throughout the roadway. At most points, it is difficult to locate on the ground. The route also cuts through BLM identified lands with wilderness character, desert bighorn habitat, chukar habitat and Mexican spotted owl critical habitat. It serves no purpose. It does not lead to any point of interest or facilitate access to a point of interest. BLM should remove this route from its motorized travel plan.*	Based on this comment, the BLM reconsidered this 0.84 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. The BLM does not include D4824 in any of the action alternatives.
D5332	A,B,C,D	*Route D5332 is a .52 mile spur off of Rustler's Overlook Road. It traverses the canyon rims through Mexican Spotted Owl critical habitat and desert bighorn crucial habitat. It is not regularly or well-used … It is also redundant with a number of nearby routes that provide similar views of the canyon.* ***Purpose and Need:*** *BLM's indications that D5332 "provide[s] commercial, private property, or administrative access," and serves as the primary access for an R.S. 2477 claim, active allotment and high mineral potential is unsupported… Second, it is highly unlikely that this route provides a "primary" access for an active allotment. It is clearly not regularly used… Route B170 Rustler's Overlook Road provides both access within the grazing allotment. For the same reasons, BLM's conclusion that "uses of this route" cannot "be adequately met by another route(s) that minimizes impacts" is also wrong. Rustler's Overlook Road provides the motor vehicle travel needs in the area on*	Based on this comment, the BLM reconsidered this 0.52 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it provides the only access to the Lockhart Overlook (named as such on the publicly available Latitude 40 Map, *Moab West*); this information has been added to the route report for D5332. This overlook is on the narrow finger of land between Lockhart Basin and Indian Creek and it represents a OHV opportunity to access this feature.

		a route that is already well used. Confining OHVs to that route would help prevent damage to sensitive resources…It is in Mexican Spotted Owl habitat and will only invite illegal and unnecessary OHV impacts.	
Comments asking for specific routes to be added to various Alternatives (Marsh, Colorado Offroad Trail Defenders (COTD), SPEAR). Note: the Blue Ribbon Coalition asks for the same routes to be designated as does the Colorado Offroad Trail Defenders. Mr. Marsh and SPEAR ask for specific routes as noted below. These comments have been paraphrased to combine the comments about the same routes and include the intent of the various commenters.			
Route #	**Action Alt.**	**Public Comment**	**BLM Response**
D1516 Marsh COTD SPEAR	A, C, D	This spur off a known 4x4 route (Boxcar Bridge) is used and valued. One commenter (Marsh) drove it recently and found it of value.	Based on this comment, the BLM reconsidered this 1.94 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it does have recreation value and is part of the San Juan County trail system. The route is open in all alternatives except Alternative B, the alternative that most emphasizes protection of resources.
D1522 COTD SPEAR	A, C, D	This spur leads to a valued overlook of Hatch Wash.	Based on this comment, the BLM reconsidered this 1.25 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it does have recreation value; specific information regarding the view into Hatch Wash has been added to the route report. The route is open in both the C and D alternatives. The route is open in all alternatives except Alternative B, the alternative that most emphasizes protection of resources.
D1780 SPEAR	A, D *Route added to C as a result of reexaminatio n*	Route ends in overlook of Kane Creek Canyon	Based on this comment, the BLM reconsidered this 0.59 mile long route. The BLM has concluded that its determination was not accurate and has changed the proposed designation under the alternatives. The route determination will be changed to include D1780 in Alternative C. Reexamination of the route showed that it does have recreation value; specific information regarding the view into Kane Creek Canyon has been added to the route report. The IDT confirmed that resource conflicts were not so severe as to prevent it from being added to Alternative C.
D0610 COTD	A,B,C,D	All of the named routes are spurs off Boxcar Bridge Route. COTD admits that he has not traveled them, but claims that they are highly scenic side spurs. They are mapped as spur routes but not highlighted in the guidebook *(Funtreks*	Of the listed side routes off the Boxcar Bridge Route, D0610, D0616 and D1521 are included in all alternatives. Based on this comment, the BLM reconsidered these routes; the BLM has concluded that its determinations are accurate and has not changed the proposed designation. Reexamination of the route reports confirms that these routes provide OHV recreation opportunities. In addition, D1521 leads to the
D0616 COTD	A,B,C,D		

D1521 SPEAR COTD	A,B,C,D	*Guide to Moab, UT Backroads and 4-Wheel Drive Trails, Funtreks, 2016*) referenced by COTD.	old cattle trail access into Hatch Wash and is the climbing trail access point for Cogswell Tower; the information has been added to the route report for D1521. Based on this comment, the BLM also reconsidered D1523 (0.88 mile long) and D4825 (0.87 mile long). The BLM has concluded that its determinations are accurate and has not changed the proposed designation under the alternatives. Reexamination of the route reports confirm that D4825 is reclaiming and thus it is excluded from Alternatives B and C; D1523 demonstrates resources conflicts and is thus excluded from Alternative B, which emphasizes the protection of resources over the provision of access. The *Funtreks Guidebook* shows every spur on a "named" route to aid with navigation; the guidebook does not state that they are particularly valued in any particular way.
D1523 COTD	A,C,D		
D4825 COTD	A,D		
D1407 COTD	No such route #	The three routes mentioned are side routes off the Canyonlands Overlook Route. COTD claims that they lead to scenic overlooks, although it is unclear if the commenter has travelled them. Mapped as spur routes, but not highlighted, in the above referenced guidebook (*Funtreks*).	There is no route numbered D1407. Based on this comment, the BLM reconsidered the 0.1mile long route, D2401. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it does has conflicts with wildlife resources and that its use is low. It is closed in all action alternatives to protect resources such as wildlife habitat. Based on this comment, the BLM reconsidered this 0.6 mile long route, D1849. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it does has conflicts with wildlife resources. It was closed in Alternatives B and C to protect resources such as wildlife habitat; it remains open only in the alternative which most emphasizes access (D). The *Funtreks Guidebook* shows every spur on a "named" route to aid with navigation; the guidebook does not state that they are particularly valued in any particular way.
D2401 COTD	none		
D1849 COTD	A, D		
D3041 Marsh COTD	A, D	This spur off a known 4x4 route (called "Kamikaze') is used and valued. One of the commenters (Marsh) drove it recently and found it of value.	Based on this comment, the BLM reconsidered this 0.27 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route showed that the route does have recreation value and affords users a view into Lockhart Basin; the information regarding that viewpoint has been added to the route report for D3041. However, reexamination of the route also showed that there are documented peregrine falcon nests in vicinity of D3041, including one that is directly across the small side canyon from the end of this route. Since the view afforded into Lockhart Basin is also gained by continued travel on the "main" Kamikaze route (D1506), D3041 is closed in all but the alternative that most emphasizes access (D). It is

			closed in Alternatives B and C to protect resources, particularly the peregrine falcon nesting in the vicinity.
"Continuation" of D1830 COTD	Not inventoried	Shafer Basin. Commenter has found this route on Google Earth and states that it leads to an overlook. This route should be restored in all alternatives.	The inventoried portion of route D1830 was used to access a fence building project in the Shafer Basin. After the fence construction, the route was used by a movie to stampede a herd of horses, which continued up the hill to what COTD calls the "end" of the route D1830. The "end" of route D1830 was purposely omitted from 2008 RMP as it was not built as a road, but rather used for a specific project and as a horse run. This linear feature was thus not included in Alternative A, as it was not designated in the 2008 Travel Plan. It remains closed to protect the natural resources found in the Shafer Basin, which is a BLM Area of Critical Environmental Concern (bighorn sheep habitat, sensitive plants and VRM Class I lands which constitute the view from Dead Horse Point State Park).
D1831 COTD	A, D	The commenter asks that this road in the wash in Shafer Basin remain open.	Based on this comment, the BLM reconsidered this 0.6 mile long route. The BLM has concluded that its determination is accurate and has not changed the proposed designation under the alternatives. Reexamination of the route confirmed that it does pose resource conflicts in an area of Critical Environment Concern. The route in question is a dead end; it does not access an overlook or any other particularly notable feature. Dispersed camping is prohibited in the Shafer Basin, so the route does not provide a dispersed camping opportunity. The level of resource concerns on the route are many and varied. The Shafer Basin is managed as an Area of Critical Environmental Concern with VRM Class I management. Scenic values are important factors in the Shafer Basin, as are sensitive plants and wildlife habitat, particularly for desert bighorn sheep. D1831 was considered an unnecessary impact upon visual resources by the ID Team. In addition, D1831 is in a wash, making it difficult to keep the route intact and to keep vehicles on the route. D1831 also impacts raptor nests, as well as being in critical habitat for Mexican spotted owl, a threatened species. For these reasons, this route is proposed for closure in Alternatives B and C. It is kept open only in the alternative which most emphasizes access (D).

May 2021

APPENDIX L. IMPLEMENTATION GUIDE
for the Canyon Rims (Indian Creek) Travel Management Plan

DOI-BLM-UT-Y010-2018-0220-EA

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LIST OF ACRONYMS

BLM	Bureau of Land Management
BLM natural area	Land managed for wilderness characteristics
BMP	Best management practice
CFR	Code of Federal Regulations
DOT	Department of Transportation
EA	Environmental assessment
ERMA	Extensive recreation management area
ESA	Endangered Species Act
FAMS	Facility Asset Management System
FHWA	Federal Highway Administration
FLAP	Federal Lands Access Program
FLPMA	Federal Land Policy and Management Act
FLTP	Federal Lands Transportation Program
FO	Field Office
GIS	Geographic information system
GPO	U.S. Government Publishing Office
GPS	Global positioning system
GTLF	Ground Transportation Linear Features
HPTP	Historic Properties Treatment Plan
LAC	Limit(s) of acceptable change
LUP	Land use plan
LWC	Lands with wilderness characteristics
MUTCD	Manual on Uniform Traffic Control Devices
NCA	National conservation area
NEPA	National Environmental Policy Act
NGO	Non-governmental organization
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHV	Off-highway vehicle
ORV	Off-road vehicle
RMIS	Recreation Management Information System
RMP	Resource management plan
RMZ	Recreation management zone
ROW	Right-of-way
RSC	Recreation setting characteristic
SHPO	State historical preservation office
SRMA	Special recreation management area
SRP	Special recreation permit
TMA	Travel management area
TMP	Travel management plan
TTM	Travel and transportation management
UTM	Universal Transverse Mercator
VRM	Visual resource management

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L.1 INTRODUCTION

Creating a Travel Management Plan (TMP) route network and analyzing the potential resource or resource use effects in an Environmental Assessment (EA) is the first of two key steps in the travel management planning process. Implementing the travel network decisions and actively managing the designated travel route system on the ground following the EA is the second key step.

L.1.1 Document Overview

This document, the TMP Implementation Guide (Guide), is the implementation step of the Canyon Rims Travel Management Plan (TMP), located on lands administered by the BLM's Moab Field Office (FO). This Guide provides operation and management guidance for the Canyon Rims Travel Management Area (TMA) Off-highway Vehicle (OHV) route network as analyzed in the Canyon Rims TMP EA and adopted and designated in the Decision Record.

This Guide is intended to serve as a standalone manual for operating and maintaining the TMA's designated travel route network in accordance with the DR. It helps fulfill the purpose and need for the TMP as detailed in the EA in meeting current and future public access and resource management needs, supports management decisions in the 2008 Moab Field Office Record of Decision and Approved Resource Management Plan (2008 RMP), and complies with the National Environmental Policy Act (NEPA) and other federal regulations.

As part of ongoing travel management associated with the adopted Canyon Rims TMP, new route designations may be added or changed in the future to respond to growing public demand for access, Title V Right-of-way (ROW) considerations, or concerns of damage to resources. Any new or changed designations will be subject to site-specific review under the NEPA.

Primary operation and management actions discussed in this Guide include maintenance and resource protection, public education and outreach, visitor services, working with partners and volunteers, law enforcement, directional and regulatory signing, reclamation, monitoring, and engineering and resource program interface.

Monitoring efforts are of key importance and will help the BLM determine the effectiveness of operation and management, informing the BLM on issues that may need to be addressed through adaptive management or additional management actions. The Canyon Rims TMP EA identified several important resource issues at the heart of the BLM's commitment to provide for multiple land uses while protecting sensitive cultural and natural resources. They include:

- Impacts of OHV travel on known cultural resource sites
- Soil erosion, and its resulting impacts on vegetation
- OHV-related disturbances of sensitive species plants habitat
- OHV-related disturbances on sensitive species wildlife habitat
- Impacts from OHV travel on the defining characteristics of lands with wilderness characteristics and other special management area designations
- User conflicts within the TMA
- Route proliferation within the TMA

In addition, the route evaluation process conducted as part of the TMP EA identified monitoring activities specific to individual routes. General monitoring schedules are included in the Appendix B "Strategies and Schedules" section of this guide.

Note: The BLM intends to fully implement the Canyon Rims TMP according to this Guide. However, the operation and management actions discussed in this document are subject to available staff and funding. For the EA it was assumed that staff and funding would be available to implement the TMP-this assumption is carried through in this Guide. Grants, new appropriations, partnerships, and volunteers may be used to supplement budgets and workforce when possible.

Additionally, mileages, percentages, and other numbers used in this guide are approximate projections for comparison and analytical purposes only. They do not reflect exact measurements or precise calculations. Table mileages and percentages may not sum properly due to rounding.

L.1.2 Travel Management Area Overview

The 91,000-acre TMA is in San Juan County and falls under the jurisdiction of the BLM Moab Field Office (FO). For more details, see the attached maps and Section 1.4 of the EA.

The TMA contains the following specially designated areas (i.e., areas formally designated by Congress or through an RMP process):

- Highway 279/Shafer Basin/Long Canyon Area of Critical Environmental Concern (ACEC)
- Suitable Wild and Scenic River (WSR) segment of the Colorado River
- Canyon Rims Special Recreation Management Area (SRMA)
- Colorado Riverway SRMA

There are also areas characterized as lands with wilderness characteristics (LWC) that are not specially designated but are managed for undeveloped character and to provide opportunities for primitive recreation as appropriate. See Appendix L-D. in this guide for details on BLM travel management-related requirements for WSRs and LWCs. Motorized and mechanized travel is limited to designated routes in the ACEC—as it is throughout the TMA—per the 2008 RMP. Pages 85 to 86 and Appendix M of the 2008 RMP provide management guidance for the Canyon Rims Special Recreation Management Area (BLM 2008b).

L.1.3 Background on BLM Travel and Transportation Management (TTM)

In the 1980s, in response to Presidential Executive Orders 11644 (Federal Center 1977) and 11989 (National Archives 1972), the BLM began to address public concerns regarding the proliferation of unplanned roads and trails and their impact on public land resources and uses. by designating all public lands as either "open," "limited," or "closed" to off-highway vehicle (OHV) use in accordance with the designation criteria in the Code of Federal Regulations (CFR), under 43 CFR 8342.1.

National BLM policy requires state and field offices to develop TTM plans using a comprehensive, interdisciplinary approach. The BLM requires this approach to integrate TTM with land use planning and resource management programs in a comprehensive process. Because travel and transportation issues affect many of the BLM's resource management programs, TTM

must be conducted using a comprehensive, interdisciplinary approach. Using a collaborative approach can resolve or prevent resource conflicts and issues associated with travel on BLM lands. The Canyon Rims TMP was developed using the TTM process. (This TMP addresses OHV use of routes in the TMA. Non-motorized uses will be addressed in a separate planning process.) See the BLM's travel management handbook (BLM 2012a) and manual[2] (BLM 2016c) for more information on the TTM process.

The BLM's TTM process ensures proactive management of public access and resources in compliance with travel-related regulations and best management practices (BMPs). The process moves from broad-scale land use plan (LUP) decisions achieved in RMPs or equivalent documents to more site-specific project level decisions and actions (e.g., those included in the EA and this document). TTM project-level decisions address specific implementation, operation, and maintenance actions for routes and access and recreation-related needs. TTM goals are to:

- Provide and improve sustainable access for public needs and experiences.
- Protect natural resources and settings.
- Protect cultural resources in compliance with Section 106 of the NHPA.
- Promote the safety of public land users.
- Minimize conflicts among various public land users.

L.2 TRAVEL MANAGEMENT DECISIONS

L.2.1 2008 RMP Decisions and Current Management Settings

Previous Individual Route Designations and General Travel Management Guidance

The 2021 Canyon Rims TMP route network designations supersede the individual route and area designations assigned in the TMA by the BLM's 2008 RMP travel plan (for more details on that designation effort, see pages 18-20 and 36-37 of the 2008 RMP. In some cases, individual route designations developed in the 2021 Canyon Rims TMP modify route-specific designations developed in 2008. In addition to assigning project-level route designations, the 2008 RMP also provided overarching travel management-related considerations, goals, objectives, and management decisions (see Appendix L-A. of this guide and pages 126-130 as well as Appendix N of the 2008 RMP) to guide future travel management planning efforts such as this 2021 Canyon Rims TMP.

Area Designations

An area designation is a land use planning (i.e., RMP-level) decision that permits, establishes conditions for, or prohibits OHV activities on specific areas of public lands. The BLM is required to designate all public lands under their jurisdiction as open, limited, or closed to OHVs. OHV area designations are different than individual route designations, which are more comprehensive and specific. After OHV area designations are assigned in RMPs, individual routes may be designated in areas designated as "open," and individual routes must be designated in areas designated as "limited." Typically, individual preliminary route designations of open, limited, or closed are identified during a systematic route evaluation process and

[2] The BLM travel management manual was last updated in 2016 and should be used instead of the more outdated handbook when manual topics overlap with handbook topics.

analyzed in an EA accompanying a proposed TMP. This was the case for the Canyon Rims TMP/EA project.

The 2008 RMP designated all of the TMA as "Limited to Designated Routes." For a depiction of OHV area designations in the Project Area, see Map 30 in the 2008 RMP (BLM 2008b). Though there are exceptions for emergencies and other instances, OHV and mechanized vehicle use is limited to designated routes in the TMA. According to the BLM's travel management manual, "As an implementation-level decision, any limitation applied in an OHV limited area may change through . . . subsequent implementation level decisions allowing management to adapt based on resource concerns, changes in resource uses, and new information" (BLM 2016c). The BLM's travel management manual provides definitions for the OHV area designations that apply in the TMA:

> OHV Limited Areas
>
> An OHV limited area is governed by one or more defined limitations. A limitation is a restriction at certain times, in certain areas, and/or to certain vehicular uses or users. These restrictions may be of any type but generally fall within the following categories or combination of categories: numbers of vehicles, types of vehicles, time or season of vehicle use, permitted or licensed use only, use on existing roads and trails, or use on designated roads and trails. While the designation of an area to the OHV limited allocation is a land use planning decision, the specific [individual travel route] limitations applicable to the area are considered implementation-level decisions.
>
> The standard limitation will be "limited to designated routes" (i.e., [travel] restricted by implementation-level decisions to the use of specific roads, primitive roads, trails, and other identified routes). If no route-specific decisions exist at the time the RMP decisions are made, the designation of an "OHV Limited Area" will limit all OHV use to the same manner and degree occurring at the time of the designation in the RMP. The "OHV Limited Area" designation will prohibit any new surface disturbance, such as cross-country travel, unless subsequently authorized through another implementation-level decision. After the RMP decision has been issued, the field office will need to determine the specific type of limitations that will apply to the areas with OHV 'limited' area designations. This is done, in most cases, through the development of a travel management plan (TMP) which results in an implementation-level decision for travel on each travel route within a given planning area (see Chapter 4 [of the travel management manual]). For additional information on the implementation of OHV limited area limitations see section 4.2 [of the travel management manual].
>
> OHV Closed Areas
>
> OHV use is prohibited in a closed area. Areas should be designated closed when limitations on OHV use will not suffice to protect resources, promote visitor safety, or reduce use conflicts. Access in these areas by means other than OHVs, including those motorized vehicles and users excluded from the definition of an OHV (43 CFR 8340.0 5(a)), mechanized vehicles, and non-mechanized use is still permitted. Closure to non OHVs requires management outside of the 43 CFR 8340 regulation and may require creation of supplementary rules (see 43 CFR 8365.1-6), establishment of closures or

restrictions (4 CFR 8364.1), or the addition of stipulations to new authorizations to govern the authorized use of vehicles.

Except as otherwise provided by law or regulation, congressionally designated Wilderness, certain other congressional designations, and some areas established by Presidential proclamation are statutorily closed to motorized and mechanized use. Refer to the appropriate law, regulation, proclamation, or policy for guidance on how to address any exceptions to closures.

L.2.2 Route Designations

One of the purposes of the Canyon Rims TMP process was to assign specific designations for each evaluated route in the TMA. For more details on route designation types and how they were determined, see Section 2.1 of the EA. For details on each assigned route designation, see the route reports discussed in Appendix H of the EA. Table L.4, below, shows the miles of routes for the selected alternative that fall under the broad designation categories of OHV-Open, OHV-Limited, and OHV-Closed. In some cases, more specific route designations may be called for under these basic designation categories. For instance, if additional management is called for by the IDT on an OHV-Open route to help mitigate a resource concern, the route would be designated as "Open with Management" but still be grouped under the broad "OHV-Open" category since it would remain available to OHV use (i.e., public motorized users). Conversely a travel route may be as assigned a more specific designation of "Limited to Authorized Use", limiting route use to authorized users (e.g., grazing permittee) only. This specific designation would be grouped under the broad OHV-Closed category since it would be closed to OHV users.

Table L.4: Miles of Routes and Percentages by Designation for the Selected Alternative

Designation	Miles	Percent of total evaluated route miles
OHV-Open	226.6	83%
OHV-Limited	0	0%
OHV-Closed	45.9	17%
Totals	272.5	100%

L.2.3 Transportation Asset Types and the FAMS

"Transportation asset" is a term used to describe roads, primitive roads, and trails that comprise the transportation system. It is the general term used to categorize all BLM-constructed "transportation assets" contained within the Facility Asset Management System (FAMS). The BLM travel management manual states, "The inclusion of a transportation linear feature in FAMS is not a decision—inclusion in FAMS is a management tool to aid in the implementation of route-related decisions such as administration, maintenance, emergency repair, etc." (BLM 2016c). If the data are available, the BLM records FAMS numbers during evaluation for routes that are already in the FAMS.

Closed routes, reclaiming routes, and routes in wilderness areas are not to be included in the FAMS. Below are BLM travel management manual definitions for the three FAMS asset types:

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 normally meet any BLM road design standards. Unless specifically prohibited, primitive roads can also include other uses, such as hiking, biking, and horseback riding.

Trail: A linear route managed for human-powered, stock or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles. (BLM 2016c)

Table L.5, below, shows the mileage of FAMS asset types for the Canyon Rims TMP adopted in the DR.

Table L.5: Miles of Routes by Asset Type and Designation

Designation	Primitive Road	Road
OHV-Open - Open year-round to all motorized vehicle travel	172.6	59.0
OHV-Closed – Route not available for public motorized vehicle use	30.3	0.4
Allowable Use: Authorized users only	11.4	0.0
Totals	214.3	59.4

L.2.4 Non-Motorized Route Use

TTM encompasses more than the management of OHVs. People can engage in non-motorized, non-mechanized uses anywhere on public lands, including those within the TMA, unless an area or route is closed for safety or a specific resource concern. Therefore, routes that limit motorized vehicle use to official or administrative purposes or otherwise are designated OHV-closed are often open to non-motorized, non-mechanized uses, including but not limited to hiking and horseback riding.

L.2.5 Cross-Country OHV Travel

The 2008 RMP does not designate any land within the Canyon Rims TMA as open for cross-country travel.

The 2008 RMP specifically addresses how the OHV-limited area designation restricts cross-country travel:

> The limited designation in the Approved RMP replaces the large amount of area currently available for cross country travel within the planning area. As a result, the Approved RMP provides a substantial amount of protection to natural (vegetation, soils, scenery, riparian, and wildlife) and cultural resources by eliminating cross-country travel which can be detrimental to these resources. The Approved RMP allows for motorized access and opportunities within the limited designation while still providing protection for sensitive resources and non-motorized recreation users. (BLM 2008b)

L.2.6 Public Land Access

Introduction

Access to and across BLM lands within the TMA is influenced by land tenure and various land-use authorizations, such as rights-of-way (ROWs) for roads and utilities. Routes in the existing transportation network which cross non-federal land or areas affected by special land-use authorizations will continue to see use under current and foreseeable travel patterns, though their public use is not legally ensured for the long-term. These routes constitute priorities for pursuing legal access acquisition (or adjudicating existing access rights) across non-federal land to ensure long-term access for the public and for the maintenance and operation of authorized uses. This project's ePlanning page shows the TMP route network in relation to BLM surface ownership in the TMA.

Access Routes and Lands from which Access Originates

Access to and within the TMA exists primarily from the Anticline and Needles Overlook roads, which stem off U.S. Highway 191 on the TMA's eastern border. The northern portions of the TMA are accessed off the Looking Glass Rock road and Flat Iron Mesa road. The portion of the TMA to the north of the Colorado River is primarily accessed from State Highway 279 (Potash Road). In addition to these developed roads, many secondary routes provide access within the TMA. Access to the TMA is primarily from BLM lands, though a few routes enter from private and state lands. In areas where BLM-administered routes cross private lands, access into the TMA from these routes is not ensured for the long-term, unless the BLM acquires legal permission across these lands. TMP route designations do not apply to private lands and access across private lands in the TMA is a concern for the public and for the BLM's management of adjacent public lands. The BLM may seek future easements from willing landowners to secure long-term public access across these lands. To avoid new ground disturbance and impacts to resources, the BLM typically prescribes use of existing roads in ROWs issued to access private land.

Public Lands Access Guidance from the 2008 RMP

Table L.6, below, provide examples of some 2008 RMP goals, objectives, and management decisions that are more directly related to public lands access than others. However, various 2008 RMP statements can relate to public access in some manner, and the lists in these tables are not comprehensive. A complete list of lands and realty management statements can be found on pages 115-122 of the 2008 RMP.

Table L.6: 2008 RMP Public Land Access-Related Goals, Objectives, and Management Decisions

Goals and Objectives	
•	Meet public needs for use authorizations such as rights-of-way (ROWs), alternative energy sources, and permits while minimizing adverse impacts to resource values.
Management Decisions	
LAR-3	Give land exchanges with the State of Utah priority consideration to resolve inholding issues.
LAR-4	Areas of Critical Environmental Concern (ACECs) will be avoidance areas for any new ROWs (including communication sites and wind and solar sites).
LAR-8	As per the State of Utah v. Andrus, Oct. 1, 1979 (Cotter Decision), the BLM will grant the State of Utah reasonable access to State lands for economic purposes, on a case-by-case basis.

L.3 IMPLEMENTATION

L.3.1 Introduction

This Guide's primary purposes are to implement the designations in the adopted Canyon Rims TMP and to create a management framework that allows for current and future needs of users while ensuring the protection of resources and reducing or preventing user conflicts. The implementation strategies in this section are designed to assist in achieving these purposes.

L.3.2 Implementation Strategy and Priorities

Priority of Implementation Actions

TMP implementation is staff- and funding-dependent and should be based on the strategies and priorities discussed below. The implementation priorities are based on the BLM's projected ability to operate and maintain the designated travel network in a manner that may change TMA conditions and influence visitor behavior to achieve desired conditions. Specific components of TMP implementation are described in more detail elsewhere in this plan. This section provides the reader with a sense of key implementation actions and when they could happen.

Monitoring, adaptive management, and budget limitations can affect the BLM's implementation priorities and timeline of completion. When selecting areas/routes for TMP implementation, priorities will be assigned using the five factors listed below. The highest priority for implementation will be given to areas/routes for which all five factors apply:

1. Would implementing the action maintain and enhance public safety?
2. Would the action be implemented in an area of high resource value (natural, cultural, historic, biological, scientific, scenic, recreational, etc.)?
3. Does the area/route include habitat for special status species?
4. Does the area/route have above-average surface disturbance?
5. Does the action resolve significant community or administrative interface issues?

The primary implementation actions described below may be done concurrently, combined, or conducted in the order in which they are funded. The BLM may attempt to complete implementation in the order shown with heightened priority acknowledged for special emphasis areas such as special designations, areas with sensitive resources, and areas of intensive use (see Section L.1.2 for a listing of special emphasis areas in the TMA). The following list indicates the BLM's Canyon Rims TMP primary implementation actions and their general/current order of priority:

1. Continue public education and outreach efforts. Develop and distribute public access maps and informational brochures of the designated route network in print and electronic (web-based) formats.
2. Sign the open route network to make open routes more apparent and attractive than closed routes. Pursue funding for materials and staff needed to implement route and transportation facility signing efforts.
3. Conduct an appropriate level of maintenance consistent with established maintenance intensity levels on the designated transportation system.

4. Establish route closures and assess restoration needs based on inventory and monitoring. Pursue funding for route closure and reclamation if necessary; then begin reclamation of closed routes.
5. Establish or maintain partnerships with existing local groups and clubs and local, county, State, and tribal government organizations. As needed and when possible, recruit and train volunteers to establish monitoring patrols and place route markers to augment BLM efforts.
6. Install informational kiosks and signs. Maintain and upgrade existing kiosk boards as necessary.
7. Monitor compliance with the TMP route network designations, including the route network markers.
8. Make changes to the route network and adjust management strategies as necessary.

Breaking down these primary implementation actions into a more refined schedule of individual tasks serves to track implementation progress and achievement. Table L.7, below, provides a refined task list with phased scheduling and task notes.

Table L.7: TMP Implementation Action Tasks and Scheduling

Phase	Task	Implementation Notes
Phase I	Assign a FAMS navigational identification number to each route that is designated open or limited.	*Enter in FAMS. Update GIS database to "crosswalk" with evaluation and inventory numbers.*
Phase I	Develop and publish up-to-date, readily available map of BLM travel route network.	*This is the first step in the effort to increase public knowledge of the travel network and plans for its future. To be cost-effective, maps may cover an area larger than just TMA BLM lands.*
Phase I	Develop a signing plan and initiate an outreach program.	*This can be done at the District level.*
Phase I	Pursue funding for outreach literature, signs, and staff needed to implement the route-marking effort.	
Phase I	Establish databases and protocols for collecting monitoring data. Identify initial sites for resource monitoring.	*Clear identification of the information required would result in more effective monitoring and data recording.*
Phase I	Prepare for initial signing of network.	*As funding allows, this may include hiring seasonal trail ranger(s) or contracting for initial signing.*
Phase I	Sign the travel route network with route markers and inventory maintenance and restoration needs. Prioritize by area.	*The principal goal is to make the open and limited travel routes more attractive than closed travel routes.*

Phase	Task	Implementation Notes
Phase I	Set up partnerships with existing local groups and clubs and local, county, State, and tribal government organizations. As needed/possible, recruit and train volunteers to establish patrols and place route markers.	*Greater public compliance with OHV regulations may be achieved over time by involving user groups for this task.*
End of Phase I	Monitor compliance with the TMP route network. Publish an annual report online.	*The report could include pictures of some actions taken.*
End of Phase I	Pursue funding for route reclamation. Establish restoration priorities using data from inventories and monitoring.	
Phase II	Take actions to reclaim "Closed and Decommissioned" travel routes that continue to receive vehicle traffic.	*Timely reclamation of such routes would reduce the potential for continued use of those routes.*
Phase II	Update travel network maps and re-publish as necessary.	
All Phases of Plan	Monitor and maintain the open route network markers based on direction in this guide's sign plan.	
Phase II or III	Install bulletin boards/kiosks at primary portals to public lands and where needed based on monitoring.	*Only install at non-portal sites if sites that require additional visitor information have been identified through monitoring.*
Phase III	Explore options for completing a visitor survey for each TMA.	

Funding Strategy

The BLM will seek adequate funding to manage and maintain the TMA's route network. Funding will be needed for labor and supplies to provide law enforcement, recreation and visitor services, outreach programs, the restoration and decommissioning of closed routes, and maintenance and operational costs (supplies, materials, tools, equipment, vehicles, communications, etc.). Operational and monitoring funding for cultural resources protection, wildlife surveys, transportation system maintenance, and related costs should be determined on an ongoing project basis and planned annually.

L.3.3 Education and Outreach

Introduction

Public education and outreach are important priorities in implementing the TMP. Successful implementation includes providing the public with information about route designations, laws and regulations, land use ethics, safety notices, and resource values that may be affected by travel and transportation on public lands. Interpretive media will be distributed through news

releases, traditional brochures and guides, travel maps, informational signage, social media sites, electronic media from BLM websites, and other means. Educational efforts will be coordinated with adjacent land managers to minimize user confusion and present a seamless message to the public across different land jurisdictions and media outlets.

Objectives

The main education objectives for the Canyon Rims TMP include attaining voluntary compliance with route designations and closures and reducing conflicts among public land users. Ensuring compliance with route designations will promote the safety of public land users, facilitate resource protection by discouraging the proliferation of unauthorized routes, and help achieve other identified objectives.

The outreach initiative will promote respect for public, private, and state trust land by providing information on access to public lands, encouraging users to obtain permission from landowners if traveling across private or state trust lands, and by specifying where to get additional information and maps. Target messages or themes for this educational effort include:

- Public lands provide diverse recreational opportunities enjoyed by various users.
- Restricting travel to designated travel routes protects resources and public access.
- Tread Lightly! (www.treadlightly.org)/Leave No Trace (www.lnt.org) outdoor ethics
- Share the trail (https://www.imba.com/ride/imba-rules-of-the-trail).
- Respect other users of public land and the rights of private landowners.
- Prevent wildfires.
- Practice OHV ethics and safety.
- Prevent the spread of invasive species.

Outreach Strategies

Effective communication with the public requires clear, concise messaging. This can be accomplished through direct and indirect public contact and through physical and virtual means. Though not exhaustive, the following list outlines potential targeted methods of communication:

- Kiosks and interpretive signage
- Visitor center displays
- In-person public presentations
- Paper and electronic format maps available to the public
    - General visitor map of designated route network (must follow mapping standards of the BLM's *Publication Standards Manual Handbook* [H-1553]).
    - Special area maps
- Website/electronic media
    - Georeferenced PDF maps for viewing on portable electronic devices
    - ArcGIS Online map server
    - Google Earth KML/KMZ files
    - Universal GPS files (GPX) for use with GPS units
    - GPS-compatible route and basemap data loaded on memory cards for sale online and/or at appropriate BLM offices and visitor centers
- Social Media

Signs are one of the most visible mediums used to convey information about the BLM and are often the only formal contact the public has with the BLM. Appropriate, consistent signing that conforms to national standards will help ensure a safe and enjoyable visit to public lands. For more specifics on signing, see this guide's sign plan (Section L.3.4).

Maps and other information relating to the travel and transportation network will be available to the public at a future date in paper and electronic form at visitor centers, on BLM websites, and displayed on informational kiosks throughout the TMA. The BLM will expand and improve educational efforts to foster responsible land-use ethics among different user groups by leveraging interpretive resources from recognized national organizations such as Tread Lightly! Inc. and Leave No Trace, both of which have signed National Memoranda of Understanding with the BLM. Educational materials will also include information on the impacts that inappropriate visitor behavior has on TMA resources or other resource uses. The BLM will incorporate information about public land values and user ethics into the terms and conditions of permits and land-use authorizations to reach a wider audience.

Partnerships

To achieve travel management implementation objectives, the BLM will seek to develop and maintain partnerships with a broad range of local, county, State, tribal, and federal agencies, as well as service-oriented volunteers, schools, and non-governmental organizations.

Partnerships enhance opportunities for community involvement in travel management implementation. Official partnerships may be established through agreements including memoranda of understanding, cooperative agreements, assistance agreements, landowner agreements, letters of agreement, and other types of documents for contributed goods and services.

L.3.4 Sign Plan

Signing is a key element in implementing comprehensive travel and transportation plans on the ground. The BLM will apply discretion and professional judgment to select the best signing methods for each situation using the guidance set forth in the Sign Plan BMPs, Appendix L-F. , and may develop more detailed, area-specific plans as needed. The sign component of this guide is intentionally broad in scope. Rather than addressing specific sign needs, requirements, or locations, it establishes sign standards and guidelines for implementation and management of TMP objectives. This is not a static implementation plan; it may be modified as new signing needs are identified. Additional details for signs on BLM lands (installation, ordering, etc.) can be found in the BLM's 2016 National Sign Handbook (BLM 2016b) and the Federal Highway Administration's Manual on Uniform Traffic Control Devices, which is also known as the MUTCD (FHWA 2019).

L.3.5 Maintenance and Engineering

Overview

This section covers maintenance and engineering considerations for the TMA route network. The "Route-by-Route Details" list presented in Appendix L-E. shows the maintenance and engineering-related details for routes in the network at the time the TMP is approved. These

routes will be added to the Ground Transportation Linear Feature (GTLF) dataset, which is the most up-to-date dataset for Utah BLM, and updates in the route network in GTLF will serve as updates to the TMP.

The routes will also be included in the Facility Asset Management System (FAMS). Each route will have a FAMS route number, a primary route management objective, a functional classification, a FAMS asset type, maintenance intensity, FAMS inclusion/nomination status, and FLTP and FLAP eligibility status. More details on these implementation data types are provided later in this section.

Route maintenance on BLM lands can include general grading and shaping of route surfaces, maintenance and installation of water control structures, placement of gravel surfacing, washout repairs or realignment, etc. The BLM will maintain roads on public lands in the TMA as specified by maintenance intensities, and condition assessment developed and conducted in accordance with the following BLM roads manual and handbooks policies:

- MS 9113 - Roads (BLM 2015a)
- H-9113-2 Roads Inventory and Condition Assessment Guidance & Instructions (2015b)
- H-9115-2 Primitive Roads Inventory and Condition Assessment Guidance & Instructions (BLM 2012c)

The conditions and use levels of routes determine what maintenance intensities they receive. Route conditions, design standards, and guidelines are based on average daily traffic, functional classifications, and terrain. Changes to the transportation network (e.g., new routes, re-routes, or closures) in the TMA are made through project-level planning with site-specific review as appropriate under applicable laws.

Maintenance efforts will focus on sustaining navigability for designated routes in the travel network without substantially changing the recreational experience that individual routes provide. In addition to the BLM, authorized users (e.g., miners, grazing permittees, and utility maintenance crews) have performed intermittent maintenance on roads in the past. Various agreements exist between the BLM and these authorized users to allow them to perform emergency spot maintenance on a case-by-case basis to restore access for authorized activities. A current route maintenance MOU exists between the Moab FO and San Juan County and is expected to remain in place in the future. No matter who performs the work, the top priorities for route maintenance are public safety, protection and/or enhancement of resources, achieving route standards, and ensuring consistency with route designation decisions.

Engineering Interface

This section describes the interface with the BLM Engineering program as an ongoing component of travel management planning and implementation. The components described below may only be fully attributed or documented as time and resources allow.

Routes in the Facility Asset Management System (FAMS)

The FAMS is the BLM's official database for the management of transportation system assets and facilities and plays a vital role in planning for the management and stewardship of BLM assets. All appropriate designated roads, primitive roads, and trails within the travel network addressed in this TMP are classified as transportation assets in the FAMS and will be tracked in the FAMS as well as the Ground Transportation Linear Feature (GTLF) geospatial database.

Routes in the Federal Lands Transportation Program (FLTP)

The BLM project lead will coordinate with BLM engineering staff to determine which routes are eligible for FLTP status. FLTP-eligible routes are:

- Owned and maintained by the federal government
- Important and highly valued by the BLM
- Located on, adjacent to, or provide access to federal lands
- Included in the national Federal Lands Transportation Facilities (FLTF) inventory

Routes in the FLTP provide access to high-use recreation locations and federal economic generators. Documenting FLTP eligibility for FLTP funding is a requirement for travel management plans (TMPs) in the 2016 BLM travel management manual (BLM 2016c).

Route Functional Classifications

The BLM uses three functional classifications (collector, local, and resource) to categorize its roads.[3] These classifications reflect the area served, type and volume of traffic, and maintenance standards. These classifications are described in the subsections below, with text taken from the BLM roads manual (BLM 2015a):

> Collector Roads: "These BLM roads normally provide primary access to large blocks of land and connect with or are extensions of a public road system. Collector roads accommodate mixed traffic and serve many uses. They generally receive the highest volume of traffic of all the roads in the Bureau system. User cost, safety, comfort, and travel time are primary road management considerations. Collector roads usually require application of the highest standards used by the Bureau. As a result, they have the potential for creating substantial environmental impacts and often require complex mitigation procedures."
>
> Local Roads: "These BLM roads normally serve a smaller area than collectors and connect to collectors or public road systems. Local roads receive lower volumes, carry fewer traffic types, and generally serve fewer uses. User cost, comfort, and travel time are secondary to construction and maintenance cost considerations. Low volume local roads in mountainous terrain, where operating speed is reduced by effect of terrain, may be single lane roads with turnouts. Environmental impacts are reduced as steeper grades, sharper curves, and lower design speeds than would be permissible on collector roads are allowable."
>
> Resource Roads: "These BLM roads normally are spur roads that provide point access and connect to local or collector roads. They carry very low volume and accommodate only one or two types of use. Use restrictions are applied to prevent conflicts between users needing the road and users attracted to the road. The location and design of these roads are governed by environmental compatibility and minimizing Bureau [BLM] costs, with minimal consideration for user cost, comfort, or travel time."

Primary Route Management Objectives

[3] Not all routes are considered "roads" in the context of BLM travel management. For example, a trail is a route but not a road. Therefore, functional classifications only pertain to roads and primitive roads. Most of the BLM-managed routes in the TMA function as resource roads.

The primary route management objective for each route influences the type of maintenance and engineering to be applied to it. The BLM's GTLF guidelines state that the primary route management objective is "the BLM's reason for the route. [It] summarizes multiple reasons into a single presentable statement" (BLM 2014d). Primary route management objectives "should reflect management area direction, including desired future conditions, uses, recreational outcomes and settings, as well as TMP objectives" (BLM 2016c). The BLM's GTLF guidelines (BLM 2014d notes three possible individual route management objectives:

- *Access* - Access to specific location for specific task/project.
- *Connectivity* - Primary objective is travel between 2+ other routes.
- *Experience* - Primary objective is to provide for recreational experience.

Engineering and Maintenance Best Management Practices (BMPs) and Standard Operating Procedures (SOPs)

The following engineering-specific BMPs and SOPs will be applied in the TMA:

Best Management Practices

- Road Drainage
    - Provide adequate drainage from the surface of all roads by using out sloped or crowned roads, drain dips, or in sloped roads with ditches and cross-drains or relief culverts.
    - Vary road grades to reduce concentrated flow in ditches and culverts and on fill slopes and road surfaces.
    - Size drainage structures appropriately to handle anticipated flow during normal runoff or storms.
    - Locate relief culverts or roadside ditches to prevent fill erosion or direct discharge of sediment into streams.
    - Prevent cross drains, culverts, water bars, dips, and other drainage structures from discharging onto erodible soils or fill slopes without outfall protection.
    - Plan natural road cross-drainage by in-sloping and using relief culverts or out-sloping and by grade changes. Plan for effective and proper spacing for dips or water bars based on road grades and soil erosion potential.
    - Design roads for minimal disruption of drainage patterns.
- Road Maintenance
    - Maintain erosion control features through periodic inspection and maintenance, including cleaning drainage dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from catch basins and culverts.
    - Avoid using roads during wet periods if such use would damage the road surface (i.e., cause rutting) and impact drainage features (i.e., breach drain dips).
    - Grade road surfaces only as often as necessary to maintain a stable running surface and effective surface drainage.
    - Conduct spot maintenance on primitive roads to correct safety issues, conserve resources, or to maintain desired recreation experiences. In most cases, grading the full length of primitive roads is not required or desired.
    - Route maintenance will occur within the route prism.
- Design features for Threatened and Endangered species and BLM Sensitive plant habitat

    - All efforts will be made to avoid disturbance in potential habitat areas.
    - Maintenance activities will occur outside the flowering period.
    - Dust will be suppressed using water.
    - If disturbance outside the existing travel surface is required for maintenance activities, then surveys will be conducted within suitable habitat. If plants are located, then appropriate consultation with FWS will be initiated.
- General
    - Ensure that road specifications and plans are consistent with good safety practices.
    - Design, construction, and maintenance of roads, primitive roads, and trails should comply with guidelines identified in the BLM roads manual (BLM 2015a), the BLM primitive roads manual (BLM 2012d), the U.S. Forest Service's Trail Construction and Maintenance Notebook (USFS 2007), Guidelines for a Quality Trail Experience: Mountain Bike Trail Guidelines (BLM and IMBA 2017), and the National Off-Highway Vehicle Conservation Council's Great Trails resource guide (NOHVCC 2015).
    - Emphasize the use of existing roads (through continued use or reconstruction) to minimize new road construction.
    - Adapt plans to the soils and terrain to minimize disturbance and damage to soil productivity, vegetation, water quality, and wildlife habitat.
    - Implement mitigation techniques when designing and implementing the route system.

<u>Standard Operating Procedures</u>

- Standards and guidelines shall be followed per BLM Manuals 9113 (BLM 2015a), 9114, and 9115 (BLM 2012d) for BLM road, trail and primitive road maintenance, new construction, or reconstruction.
- The standards and guidelines for primitive roads shall be based on the functional requirements of the various types of recreational motorized users.
- The BLM should not develop, endorse or publish road or trail ratings. The BLM will describe the physical aspects of a road, primitive road, trail, or recreation site as necessary to avoid visitor inconvenience and align visitor expectations with existing conditions.
- Maintenance will be completed only to the identified maintenance intensity level in support of resource protection, delivery of services to the public, and public safety.
- Maintenance standards for each designated route will be documented, and route modifications will be identified and recommended if necessary.
- Maintenance of routes may be done to minimize soil erosion and other resource degradation. This maintenance will be done on a case-by-case basis, depending upon annual maintenance funding and available resources.
- Once the number and type of barriers is determined, maintenance procedures for physical barriers will be developed and tracked manually or systematically by a system such as the FAMS.

Maintenance Intensities

Routes in the TMA network will be maintained in accordance with assigned maintenance intensities and in consideration of resource issues. Maintenance intensities provide guidance for the minimum standards of care for the annual maintenance of BLM routes based on identified management objectives (natural, cultural, recreation setting, and visual). Each maintenance intensity category provides operational guidance to field personnel on the appropriate intensity, frequency, location, and type of maintenance activities that will be undertaken to keep routes in acceptable condition. They do not describe route geometry, type, types of use, or other physical or managerial characteristics of routes.

The aim of BLM route maintenance in the TMA is to sustain navigability for network roads, primitive roads, and trails without substantially changing the routes' recreational experiences. The top priorities are to protect visitors, reduce hazards, and prevent the degradation of resources.

Based on resource management needs and functional classifications, each route in the TMA will be assigned a maintenance intensity level, which provides the basis for route maintenance in the BLM FAMS database.

Table L.8, below, describes maintenance intensities. The table's maintenance intensity descriptions are derived from the first appendix item of the BLM roads manual (BLM 2015a). Details on the objectives and funding levels for each maintenance intensity are also in the BLM's roads manual.[4] Most primitive roads are likely to have low maintenance intensities but will be managed to protect sensitive resources and provide for an acceptable level of health and safety risk given the type of use. Maintenance intensity levels provide the basis for performing maintenance and updating the BLM GTLF and FAMS database for the TMA.

Table L.8: Maintenance Intensities Under Chosen Alternative

Maintenance Intensity	Descriptions of Routes Under Each Intensity Level
Level 0	Existing routes that would no longer be maintained or declared as routes. Routes identified for removal from the Transportation System entirely.
Level 1	Routes where minimal (low-intensity) maintenance is required to protect or access adjacent lands and resource values. These roads may be impassable for extended periods of time.
Level 3	Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access). Maintenance intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.
Level 5	Routes for high (maximum) maintenance because of year-round needs, high-volume traffic, or significant use. May also include routes identified through management objectives as requiring high intensities of maintenance or to be maintained open year-round.

[4] The BLM roads manual referenced above mentions maintenance intensity levels 2 and 4, which are not in the table below because they are "Reserved for Possible Future Use."

Upgrading a road's surface, width, or permanently raising the maintenance intensity level on a specific route may change the network, and therefore may trigger the need to determine if additional environmental analysis is required.

Transportation Facilities

This TMP does not identify specific network-related facilities that may need improvement or development. Such proposed improvements or development would be addressed in specific activity-level or project-level proposals and be subject to site-specific analysis under the NEPA. Examples of such proposed improvements or development include campsites, staging areas, protective fencing, barriers, information kiosks, administrative gates, trailheads, and non-motorized trails. Once completed, these improvements or developments would be incorporated into this TMP and considered part of the travel network.

New Route Development

The addition of new routes is part of the operation and management of the overall travel network. New route development may be appropriate, depending on the situation. For example, resource protection or administrative concerns might necessitate the relocation of an existing route. The BLM or members of the public might request new routes to improve or enhance access or experiences (e.g., creating a travel loop). Engineering staff will be involved early in the process of planning, locating, designing, constructing, and choosing and applying BMPs associated with new routes. New routes and changes to the network will require an appropriate level of NEPA review.

New routes may be proposed through site-specific project plans, permits, or ROW requests. The route evaluation process and NEPA review (both of which may be done concurrently) must occur prior to the implementation or construction of a new route. If authorized, new routes and any associated ROWs would become part of the designated transportation system; closed routes would be removed from the transportation system. The BLM's travel management manual (BLM 2016c) provides broad guidelines on how to appropriately add new routes to a BLM travel network.

All new roads, primitive roads, and trails shall meet the standards for design, construction, and maintenance found in BLM manuals and handbooks (e.g., "Appendix 8: Trail Planning and Standards" in the BLM Travel and Transportation Management Handbook (BLM 2012a)). Among other guidance, all new TMA routes shall meet the standards for design, construction, and maintenance found in the BLM's Roads Design Handbook (BLM 2011) and Primitive Roads Design Handbook (2012b). Such guidance provides details on specifics such as degree of curvature, sight distance, alignment, etc.

Route Relocation and Realignment

Route widening, realignments, or travel surface upgrades can occur if:

- Appropriately addressed by a project-level TMP EA or other NEPA.
- Needed to achieve route standards or management objectives.
- Needed for public safety.
- Done in accordance with TMA route maintenance and construction standards.

Processing of Proposed Route Changes

The process of adding new routes (OHV) or adding administrative routes to the designated route network and implementing other route changes require appropriate NEPA review. All proposed route changes could be processed as follows:

- Route locations will, at a minimum, be mapped or located using accepted GPS devices and presented to the BLM (if proposed by a third party) for consideration. Locations of route proposals off designated OHV routes will be documented and mapped using non-OHV methods. The proposed location will be staked and flagged or otherwise identified for on-the-ground review by resource specialists. The BLM may require that a licensed surveyor provide a cadastral survey (to be reviewed by a BLM cadastral surveyor) of a route prior to issuance of a ROW authorization.
- Route proposals submitted to the BLM shall include a description of the route (including its proposed width), its proposed use(s) (including expected traffic and design vehicle), and rationale for its need.
- The route location shall be analyzed for potential conflicts, such as (but not limited to): wildlife habitat and movement, adverse effects to NRHP-eligible cultural resources, visual resources, other recreation uses, mining claims or leases, grazing facilities, ROWs, public safety, and proximity to other jurisdictions (such as private land). A structured process will be used to evaluate and document potential route conditions.
- The conflict assessment may lead to development of mitigation actions or alternative locations or designs.
- NEPA review will be conducted to determine the environmental effects of the proposed route, any reasonable alternatives, and recommended mitigation.
- A decision will be issued by the field manager based on 2008 RMP conformance, resource objectives, and environmental impacts.
- If the decision is to approve the addition of the route, this TMP will be updated accordingly.

L.3.6 Enforcement

Overview

Law enforcement coverage in the TMA is currently provided by BLM law enforcement and local sheriff and/or police departments. The BLM maintains the authority to temporarily, permanently, partially, or completely suspend any activity based on safety issues or unacceptable resource impacts. Enforcement actions typically occur in response to complaints, and patrols are conducted on a periodic basis, depending on other priorities. Typical law enforcement concerns related to public use in the TMA include route proliferation, dumping, vandalism, theft of government property, littering, interfering with livestock operations, medical emergencies, search-and-rescue operations, illegal removal of natural resources, unauthorized cross-country OHV use, firearms violations, and driving under the influence of alcohol or drugs. State vehicle laws will be applied to OHV use where applicable. The following measures are key to effective law enforcement in the TMA:

- Provide for a regular and systematic presence of BLM and partner agency law enforcement.
- Expand and maintain interagency cooperation.

- Increase public education efforts to promote awareness of and voluntary compliance with use restrictions and regulations through information posted on handouts, kiosks, and websites, etc.
- Prioritize the use of limited law enforcement resources to the greatest effect:
    - Concentrate law enforcement efforts during high-use periods such as weekends and holidays.
    - Focus targeted enforcement in the highest-use areas.
- Support volunteer efforts to educate the public on rules and proper land use etiquette, such as NGOs leading Leave No Trace seminars.

Regulations to be Enforced

The public land regulations described in 43 CFR 8340 (GPO 2016), 43 CFR 8360 (GPO 2009a), and 43 CFR 9268.3 (GPO 2001) will be enforced to implement travel management and route designations within the TMA. These regulations will be enforced by BLM law enforcement officers to protect public safety and resources. They may be supplemented as deemed necessary by Supplementary Rules, which may be established pursuant 43 CFR 8360 under a separate action to implement use restrictions identified in RMP decisions. State of Utah motor vehicle laws and regulations, including OHV regulations, apply on BLM-administered lands in the TMA and will continue to be enforced.

Patrols

In addition to responding to complaints, emergency situations, and where monitoring has found user conflicts or resource concerns, BLM law enforcement officers and field staff will focus patrols to detect and deter ongoing and potential future illegal activity, check compliance with route designations, and educate visitors about BLM, state, and federal laws and regulations. During regular patrols, law enforcement officers and field staff will document observed OHV impacts to resources as appropriate or as a general component of monitoring. Routine, highly visible patrols by BLM staff will also help to maintain an effective authoritative presence in the field.

Personnel from partner agencies, such as the Utah Division of Wildlife Resources (UDWR), San Juan County Sheriff's Department, and the Utah Highway Patrol may also assist BLM staff with law enforcement duties on BLM-administered lands in the TMA. Local police departments may patrol in wildland-urban interface areas. Coordinated interagency efforts may be undertaken to provide an official presence during times of peak use or to supplement ongoing resource protection-related operations.

L.3.7 Supplementary Rules

Supplementary rules can be established where current regulations (including route designations) do not provide adequate public safety or resource protection. See 43 CFR 8365.1-6 (GPO 2009b) for the supplementary rulemaking process. Speed limits would be an example of supplementary rules drafted and applied within the TMA.

L.4 LONG-TERM MONITORING PROTOCOL FOR OHV IMPACTS AND OTHER ITEMS

L.4.1 Overview

Introduction and Purpose of Monitoring

Monitoring is an important component of successful TMP implementation. Monitoring efforts will help determine the effectiveness of route management and inform the BLM on route use-related issues that may need to be addressed. The EA identified a number of important resource and use issues at the heart of the BLM's commitment to provide for multiple land uses while protecting sensitive cultural and natural resources. The following issues are of particular importance to the TMA:

- Impacts of OHV travel on known cultural resource sites
- Soil erosion and its resulting impacts on vegetation
- OHV-related disturbances of special status species plant habitat
- OHV-related disturbances on special status species wildlife habitat
- Impacts from OHV travel on the defining characteristics of lands with wilderness characteristics and other special management area designations
- User conflicts within the TMA
- Route proliferation within the TMA

As required in 43 CFR 8342.3 ("Designation changes"), "The authorized officer shall monitor effects of the use of off-road vehicles. Based on information so obtained, and whenever the authorized officer deems it necessary to carry out the objectives of this part, designations may be amended, revised, revoked, or other actions taken pursuant to the regulations in this part" (GPO 2016). In the broadest sense, monitoring helps to determine if adequate progress is being made toward management objectives. Among other things, this means that the monitoring program will be used to determine:

- If resource protection and resource use objectives are being met.
- Visitor satisfaction.
- Use patterns and volumes.
- Condition of roads and trails, the condition of public use areas, and compliance with route designations and use restrictions.
- Effectiveness of cross-jurisdictional enforcement.

Additional monitoring information and materials can be found in Appendix L-B. . Monitoring Support Materials.

Where to Find Monitoring Guidance

Monitoring requirements can be found in the Biological Opinion, Historic Properties Treatment Plan (HPTP), and specific route evaluation reports. Additional monitoring will occur as part of ongoing monitoring and other resource monitoring (such as wilderness monitoring, lands with wilderness character inventory, visual resource inventory, sensitive species monitoring, range management monitoring, new project site consideration etc.). As noted in Section 0 the BLM will compile specific monitoring requirements from the Biological Opinion, HPTP, and specific

route evaluation reports into a checklist so that those monitoring requirements can be tracked and documented.

Who Conducts Monitoring

An effective monitoring program is dependent on establishing a cadre of monitoring personnel who work with the BLM to report issues or concerns that they encounter while performing their normal daily activities. Monitoring may be conducted by BLM staff, UDWR personnel, commercial Special Recreation Permit (SRP) holders, grazing permittees, and other partners as approved or authorized by the BLM.

Baseline Monitoring Data

In compliance with the 2017 Settlement Agreement, the Moab FO assembled the Canyon Rims Travel Management Plan Baseline Monitoring Report (BLM 2019). This report can be found on this project's ePlanning page.

Assembling this report involved collecting information on visually apparent unauthorized surface disturbances off routes as well as visually apparent damage to public lands resources caused by OHV use within lands with BLM-inventoried wilderness characteristics. The baseline monitoring data was used to help inform route decisions within the TMP. See Appendix L-B. for more details on baseline monitoring report requirements associated with the 2017 Settlement Agreement.

L.4.2 Types of Monitoring

Introduction

There are three basic types of monitoring detailed in this guide: implementation, effectiveness, and resource monitoring. Implementation and effectiveness monitoring assess the effectiveness of management actions. Resource monitoring documents how various indicators of resource health change over time.

Implementation Monitoring

Implementation monitoring is the most basic type of monitoring, and simply determines whether management actions in the TMP have been implemented in the manners prescribed by the applicable planning documents. Implementation monitoring documents the BLM's progress toward full implementation of land use plan (i.e., 2008 RMP) decisions. There are no specific thresholds or indicators required for this type of monitoring.

Effectiveness Monitoring

Effectiveness monitoring is used to determine if TMP implementation activities have achieved 2008 RMP goals and objectives. Effectiveness monitoring results are used to evaluate implementation progress and the effectiveness of the TMP in achieving desired outcomes and conditions. If adverse impacts are discovered, effectiveness monitoring results will also be used to identify adaptive management measures. Effectiveness monitoring will evaluate route conditions, public safety issues, and changes in visitor use patterns and preferences. Effectiveness monitoring may also quantify OHV user compliance.

Effectiveness monitoring asks the following question: Was an activity successful in achieving its objective? Effectiveness monitoring requires knowledge of the objectives established in the 2008 RMP as well as indicators that can be measured. To see the 2008 RMP's travel management-related goals, objectives, and management decisions, see Appendix L-A. of this guide. Indicators are established by technical specialists to address specific questions and avoid unnecessary data collection. Effectiveness is measured against the benchmark of achieving the goals and objectives established by the 2008 RMP, which may include regulated standards for resources. Effectiveness monitoring for the route network will be conducted by staff, volunteers, users, and partners *as time and funding permit*; it may include the following elements:

- Visually document implementation or establishment of closure practices (signs, gates, berms, rocks, etc.) or road decommissioning practices and monitor effectiveness of closure. Establish photo-monitoring points to monitor long-term effectiveness of closing/decommissioning routes.
- Determine the level of OHV use across the landscape using trail counters and aerial photos over time. Traffic counters may be employed to determine levels of use on selected routes.
- Identify route proliferation, unauthorized route creation, route conditions, recreation conflicts, and resource damage compared to baseline monitoring. Measure illegal off-trail and off-road travel as linear disturbances or as area impacts, depending on the level and type of use that occurs.
- Monitor litter/trash.
- Monitor reclamation project success.
- Initiate and maintain collaborative partnerships among government agencies, local governments, business communities, volunteers, user groups, stakeholders, educational institutions, individuals, and the private sector to achieve recreation management objectives through BLM-developed monitoring techniques.
- Quantify OHV user compliance and evaluate route conditions, public safety, and changes in visitor preferences and use patterns. It may also help to identify adaptive measures as adverse impacts are discovered.
- Administer a survey on recreation demand, preferences, uses, satisfaction, and information needs in the TMA. This should be done as soon as possible, and maps updated periodically. Work with partners such as universities and user groups to conduct the surveys. Base specific schedule of surveys on TMA conditions and available resources.
- Acquire visitor feedback to monitor whether TMA BLM lands have been clearly mapped and signed for the public. This could be done as part of the survey efforts described above.
- Consider information from recreational groups, records of field contacts, written trail register comments, and public phone calls to the Moab FO as part of monitoring the effectiveness of travel management in reducing conflict between different types of users.
- Monitor signing effectiveness through field visits and consideration of amounts of maintenance required.
- Assess primitive road and trail conditions.

- Assess indicators of potential recreation impact issues (e.g., number of new bare soil areas attributable to visitor use, number of campfire pits, additional litter or trash along primitive roads, etc.).

Resource Monitoring

Resource monitoring documents how implementation of the TMP influences natural resources over time. Validating management actions' effects on natural resources is more complex than determining the result of compliance or effectiveness monitoring.

Resource monitoring will be adaptive- monitoring protocols or techniques may be adjusted as new methods are developed or if it is discovered that current monitoring is not meeting management information needs. Routes with "Open with Management" or "Limited with Management" designations have monitoring specified for various resources, and those resource monitoring protocols will be implemented (subject to funding and available resources) on or along those specific routes. Resource monitoring may be accomplished through standard field office protocols in accordance with the 2008 RMP (see below).

TMA-Specific Monitoring

Appendix E in the 2008 RMP includes specific monitoring guidelines applicable to various resources/uses. Although various resources/uses could somehow be impacted by travel management, these guidelines include specific methodologies for OHVs, travel and transportation management, and recreation (see table below).

Table L.9: 2008 RMP Travel Management-Related Monitoring Methodologies

Resource	Suggested Monitoring and Methodology
Travel Management	Travel management and OHV use monitoring within the planning area will focus on compliance with specific route and area designations and restrictions with primary emphasis on those routes or areas causing the highest levels of user conflicts or adverse impacts to resources. Monitoring will focus on the travel designation requirement that all motor vehicles remain on designated routes. Monitor the effect of the use of off-road vehicles. On the basis of information so obtained, and whenever necessary, the designations may be amended, revised, revoked, or other action taken. Modifications to the route system in the Approved RMP will not be considered until implementation of the travel portion of the plan has been substantially completed which includes mapping, signing, monitoring, and evaluation. The process for considering route modifications will be detailed in the Implementation Plan developed for the RMP after completion of the ROD. BLM could impose limitations on types of vehicle allowed on specific designated routes if monitoring indicates that a particular type of vehicle is causing disturbance to the soil, wildlife, wildlife habitat, cultural or vegetative resources, especially by off-road travel in an area that is limited to designated roads. The RMP must include indicators to guide future plan maintenance, amendments, or revisions related to OHV area designations or the approved road and trail system within "Limited" areas. Indicators could include results of monitoring data, new information, or changed circumstances (IM 04-005). Actual route designations within the "Limited" category can be modified without completing a plan amendment, although NEPA compliance is still required.
Resource	Suggested Monitoring and Methodology

Resource	Suggested Monitoring and Methodology
Recreation	Designated roads and trails will be monitored to ensure compliance with the administrative goals of maintaining or meeting Utah Rangeland Health Standards. Designated dispersed campsites will be visited to ensure that motorized camping vehicles are using single paths to the campsite.
Travel	Travel management and OHV use monitoring within the planning area will focus on compliance with specific route and area designations and restrictions, with primary emphasis on those routes or areas causing the highest levels of user conflicts or adverse impacts to resources. Route or area closures will be regularly monitored for compliance. Findings will be reported in the annual report.

When monitoring indicates that use of a designated route is resulting in unacceptable resource degradation, the adaptive management process (see Section L.4.3 below) will be triggered and applied.

Field Specific Monitoring Protocols

This section describes how implementation, effectiveness, and resource monitoring will be accomplished.

Ad Hoc Monitoring

BLM staff will be briefed on the key issues addressed in the EA and alerted to informally monitor for related resource impacts as they go about their daily work within the TMA. They will be directed to pay close attention to any unauthorized off-route use and apparent user conflicts. During ad hoc monitoring BLM staff may using the "Motor Vehicle Impact Monitoring Protocol," similar protocol, or may provide a description of the location and impacts to the appropriate resource staff (Field Manager, Assistant Field Manager, Outdoor Recreation Planner, Field Technician, etc.).

Ad hoc monitoring results will be used to help the BLM continually adapt its strategic monitoring efforts including focusing law enforcement patrol to particular areas if needed. Ad hoc monitoring may also include input from authorized users and members of the public who should be encouraged to supply such information. Ad hoc monitoring may also include general consideration of the route itself and maintenance, signing, or other needs that should similarly be passed to appropriate BLM staff.

Strategic Monitoring

The BLM will conduct strategic monitoring based on requirements from the Biological Opinion, HPTP, and specific route evaluation reports. Additional strategic monitoring will occur as part of ongoing monitoring and other resource monitoring (such as wilderness monitoring, lands with wilderness character inventory, visual resource inventory, sensitive species monitoring, range management monitoring, new project site consideration etc.).

The BLM will compile specific monitoring requirements from the Biological Opinion, HPTP and specific route evaluation reports into a checklist so that those monitoring requirements can be tracked and documented.

L.4.3 Adaptive Management

Overview of Adaptive Management

Adaptive management is "a tool designed after the scientific research process. . . [It] requires a measurable objective, monitoring to determine the effectiveness of the management practices in achieving the objective, evaluation to determine if the objective is being reached, and adaptation based on the results" (BLM 2014a). A similar definition is found in 43 CFR 46.30 (GPO 2011). In adaptive management, problems are assessed, designs are formulated to address problems, and then designs are implemented. During and after implementation, the BLM conducts monitoring, gathers and evaluates data, and adjusts management based on new findings. However, new problems could arise, or new approaches might be tried after management is adjusted, which could start the cycle over again. Figure L.1, below, shows the cycle of adaptive management.

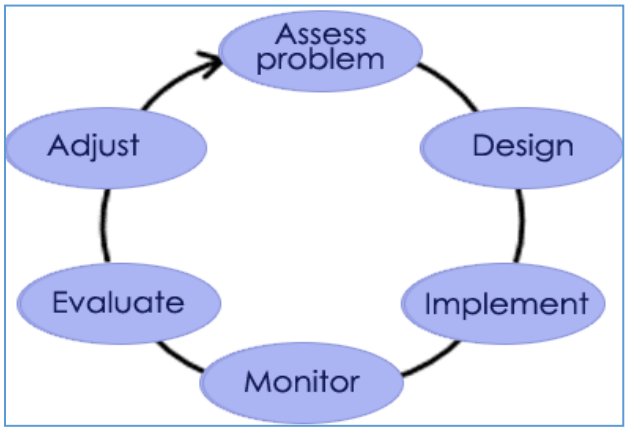

Figure L.1: Adaptive Management Cycle

Implementing Adaptive Management in the TMA

Some designated routes in the TMA are in or near resources of concern (e.g., special status plants or wildlife, highly erosive soils, etc.) and mitigation is highlighted in route evaluation forms. In addition, Appendix L-H. details management strategies for habitat evaluations and monitoring within special status species habitat. The BLM should mitigate adverse effects throughout the TMA on a case-by-case basis as directed in the 2008 RMP. For designated routes identified for adaptive management, results from ongoing monitoring and assessment may be used to adjust and improve management decisions over time. For TMA BLM-administered lands, sufficient monitoring must be planned to determine whether adequate progress is being made toward achieving priority tasks. If progress is insufficient to achieve tasks in a realistic time period, management actions should be revised.

Adaptive management monitoring may be based on limits of acceptable change (LAC) indicators. Below are some examples of LAC indicators/triggers which may require adjusting the TMP:

- Desired recreation experiences are not being met as determined by surveys, visitor sign-in logs, or other data-gathering processes conducted in the TMA
- Priority or special status species habitat conditions continue in a downward trend as a result of recreation or travel impacts

- Riparian condition trend is not improving as a result of recreation or travel impacts
- Degradation of cultural sites and wilderness area boundaries

Adaptive management monitoring focuses on changing conditions that could affect route designations. Through adaptive management, the BLM may modify the TMP to respond to a variety of issues or concerns that could arise in the TMA throughout the life of the TMP. Some more general examples of factors that might alter management are listed below:

- Need to create new roads to access private property, mining claims, public utilities, or other needs
- User-created route proliferation
- Listing of additional special status plant and animal species
- Discovery of additional resources
- Availability of funding to manage and operate the travel management network

Applying adaptive management is an essential component of travel planning. Throughout the life of the TMP, the BLM may use adaptive management and rely on monitoring data to improve this plan. Modification actions based on adaptive management may require additional site-specific analysis in accordance with the NEPA.

L.4.4 Route Designation Changes

The TMP will remain in effect until revised or replaced by a completely new TMP, RMP revision, or amendment supported by an appropriate level of NEPA. The TMP may be updated and maintained as monitoring and adaptive management indicate changes are needed to individual route designations to protect resources or ensure user safety. In addition, any individual, organization, or governmental body may propose that a current route designation be changed. Requests to change route designations must be submitted in writing to the Moab FO Field Manager and will be processed as follows:

- Upon receipt of a route change proposal, it will be reviewed by the Field Manager. The Field Manager will determine whether the proposal has merit. If the request is rejected, a letter will be sent to the requester indicating the reasons for rejection. If accepted, the request will be forwarded to the appropriate BLM staff and reviewed for recommendations as to the appropriateness of the proposal, and levels of required NEPA review and analysis. When accepting a proposal, the Field Manager will consider cost recovery.
- Modifications of the road network during implementation of the TMP may require new site-specific review as appropriate under the NEPA.
- Modifications and minor realignments, including alignment changes made through implementation actions shall be documented in the official record, kept on file in the Moab FO, and considered as an update to the TMP.

The Moab Field Manager has the authority to make final decisions on route changes. A formal decision to accept or reject a specific request for a route change will only be issued following an appropriate level of NEPA review that includes evaluation of a proposal's effect on the total travel network.

L.4.5 Tracking Plan Implementation Progress

In accordance with the BLM travel management manual, "Field offices will track planning and implementation progress using the travel management module in the Recreation Management Information System (RMIS). States will track statewide progress through long-range transportation plans (see section 6.8 (of the travel management manual)) using the BLM state's TTM planning schedule" (BLM 2016c).

L.5 MITIGATION

L.5.1 Overview

Travel management-related mitigation is prescribed and executed at multiple levels: first, as described in the 2008 RMP; second, as a component of the selection of a travel network alternative where routes are assigned an OHV designation that considers impacts to resources, route purpose and need, route redundancy, etc.; and third, as specific mitigation measures prescribed by the BLM IDT during route evaluation and documented in route evaluation reports. Many of the routes with "Open with Management" or "Limited with Management" designations have specific mitigation measures prescribed (e.g., applying erosion control measures on a route segment that has ongoing erosion issues). For route-specific mitigation details, see the route reports for this project as well as Route-by-Route Monitoring and Mitigation

Table L.12**Error! Reference source not found.** in Appendix L-B. **Error! Reference source not found.** of this Guide.

Additional mitigation will also occur as a result of resource monitoring via adaptive management. Emerging issues (related to specific routes and management actions) may be identified through adaptive management monitoring, and mitigation would be applied if monitoring reveals that conditions require mitigation. Typical mitigation measures would be the BMPs that respond to identified resource or resource use issues. Monitoring would continue to be done during and after mitigation measure implementation.

L.5.2 Travel Management Mitigations in the 2008 RMP.

The 2008 RMP provides the following management statements closely tied to travel management mitigation. The lists below are not exhaustive but are intended to capture the RMP statements most clearly related to travel management-related mitigation.

Table L.37: 2008 RMP Travel Management-Related Mitigation Guidance

Management Decisions	
TRV-5	BLM could impose limitations on types of vehicle allowed on specific designated routes if monitoring indicates that a particular type of vehicle is causing disturbance to the soil, wildlife, wildlife habitat, cultural or vegetative resources, especially by off-road travel in an area that is limited to designated roads.

TRV-8	Where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse impacts, the authorized officer shall close or restrict such areas. The public will be notified as to these closures and restrictions.
TRV-9	Any routes that are not baseline routes will be signed "Closed" on the ground. Such routes will be considered as impacts to the area's natural character, and use of such routes will be considered cross country use and not allowed. Non-inventoried routes should be rehabilitated.
TRV-14	Limit mechanized (mountain bike) travel to designated trails and managed routes for resource protection purposes. Routes that are no longer available for motorized travel may be converted to bike routes upon application of site-specific NEPA analysis.
"Mitigations" section (N.7.2.2) from Appendix N	
	Mitigations that can be utilized to address conflicts could include: 1.Non-designation; 2.The season and timing of use; 3.The types of vehicle use, motorized and non-motorized; 4.Re- routing of segments; and 5.Other methods of travel.

L.5.3 Route Management Mitigation Actions for Conflict or Impact Scenarios

Appendix L-G. presents examples of possible route management mitigation actions that address potential route-related resource concerns for riparian areas and water quality, wildlife and vegetation, user conflicts, vandalism, etc. The BLM Travel Management Handbook (BLM 2012a) has additional examples of mitigation measures in "Appendix 5: TTM Challenges and Solutions for Recreation/Trail Management."

L.6 ROUTE CLOSURES

L.6.1 Introduction

Under certain circumstances, to protect public health and safety or prevent unnecessary or undue resource degradation due to unforeseen circumstances (e.g., catastrophic wildfire resulting in destabilized soils and unsafe conditions in a critical watershed), routes may need to be closed or restricted. The authority for implementing such closures and restrictions is given in Section 302 of the Federal Lands Policy and Management Act (FLPMA), which requires the Secretary of the Interior to take action to prevent unnecessary or undue degradation of the lands.

The two principal federal regulations for closures and restrictions during TTM are the special rules provided for OHV management in 43 CFR 8341.2 (GPO 2000) and the closures and restrictions for visitor services in 43 CFR 8364.1 (GPO 2004b).

L.6.2 Closures in General

The 2008 RMP states, "Where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse impacts, the authorized officer shall close or restrict such areas. The public will be notified as to these closures and restrictions." 43 CFR 8364.1 regulates the ability of the authorized officer to close or restrict a specific use or uses of the public lands for the protection of persons, property, and resources. Unlike the special rules found

in 43 CFR 8341.2, these closure and restriction orders can apply to any transportation mode or activity but require a formal notification process, including Federal Register publication. The use of this authority is limited to two years by policy, but extensions are approved on a case-by-case basis. NEPA compliance is required for use of this authority.

L.6.3 Emergency Closures

Emergencies are unforeseen events of such severity that they require immediate action to avoid dire consequences. In the event of an emergency, immediate actions (e.g., closures or public land use restrictions) must be taken to prevent or reduce risks to public health or safety, property, or important resources. Section 2.3 of the BLM NEPA Handbook (BLM 2008a) defines the following actions as typical emergency situations:

- Cleanup of a hazardous material spill
- Fire suppression activities related to ongoing wildland fires
- Emergency stabilization actions following wildland fires or other disasters

L.6.4 Temporary Closures

Where OHV activities are causing considerable adverse effects to resources, temporary closures can be implemented under the authority of 43 CFR 8341.2 and 8364.1. The purpose of a temporary closure and restriction is to protect public health and safety or prevent undue or unnecessary resource degradation due to unforeseen circumstances and should not be used in lieu of permanent closures. The BLM's Travel Management Manual states,

> Where off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife *and fisheries* habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas will be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures are implemented to prevent their recurrence (43 CFR 8341.2). (BLM 2016c)

If site, issue, or resource-specific evaluation is deemed adequate through the NEPA analysis process associated with either the 2008 RMP or the EA for this TMP, temporary closures and restrictions exercised under this process may not require further NEPA review. This may include closure of routes or areas.

L.7 ROUTE DECOMMISSIONING AND RECLAMATION

L.7.1 Overview

When a closed route is successfully decommissioned and reclaimed, it should blend into the surrounding area. Effective reclamation of closed routes is important for meeting a variety of management objectives, including:

- Attainment and maintenance of physical and social settings that support prescribed recreation opportunities and outcomes in SRMAs.
- Reduced visitor confusion resulting from unmarked non-system routes.
- Increased visitor safety through reclamation or rerouting of unsafe non-system routes.

- Reduced operation and maintenance costs associated with un-reclaimed routes slated for reclamation.
- Restored natural appearance of the landscape.
- Restored natural habitat and reduced habitat fragmentation.

See Appendix L-C. for details on reclamation methods as well as the routes that are earmarked for reclamation under the chosen alternative. Note that not all routes designated as OHV-closed are scheduled for decommissioning, as they may remain available for authorized use or other non-OHV uses.

L.7.2 Priorities

Certain routes earmarked for reclamation will have a higher implementation priority than others, as determined by the BLM's resource specialists. The BLM will prioritize reclamation in special management areas (e.g., SRMAs), special designation areas (e.g., ACECs, LWCs, etc.), and other sensitive areas. In general, initial reclamation efforts may focus on the following priority types, in order of importance:

1. Routes that pose a public safety hazard
2. Routes leading into a designated wilderness area
3. Routes causing resource damage, or routes in areas with a high risk for potential impacts to resources such as special status species or their habitat, or any other resources requiring special management or protection

L.7.3 General Reclamation Strategy

The overall objective for routes earmarked for reclamation is to remove them from the landscape using a variety of reclamation techniques. The most effective method of reclaiming these routes and preventing further use is to disguise their location. This process favors a natural non-disruptive form of recovery where possible and is the most cost-effective technique. If disruptive reclamation techniques are to be used, sensitive timeframes or seasons for protected, sensitive, or management priority species should be considered. To minimize route closure impacts, whenever practicable, the BLM may implement the non-disruptive closure methods first. Initially, most of the routes earmarked for reclamation may be allowed to naturally reclaim. Alternatively, by applying low-impact manual reclamation techniques, surface disturbances may be kept to the minimum necessary to close most routes and fulfill management objectives.

During the route evaluation process the most appropriate method of reclamation was identified for each route based on factors such as geography, topography, soils, hydrology, and vegetation, as well as management objectives, reclamation costs, modes and conditions of travel, recreation settings, and other factors. The BLM will compile a prioritized list of routes scheduled for reclamation including the reclamation method as prescribed by the TMPs route evaluation reports.

Post-reclamation monitoring of routes is essential to maintaining successful closures. If monitoring indicates the need for additional reclamation efforts after less intrusive closure methods have not been successful, the BLM may consider other closure options through adaptive management. Unless determined as necessary at the beginning of the implementation process, surface-disturbing reclamation actions may only take place after less intrusive methods have

been tried. For example, continued vehicular use on a closed route may indicate that natural reclamation has been ineffective on that route. If it is determined that surface-disturbing reclamation techniques are necessary to effectively close a route, the Reclamation Techniques Toolbox in Appendix L-C. will be used. It features a series of options designed to effectively ensure that closed routes are reclaimed and revegetated. The minimum necessary or "least impact" treatment analyzed in the Reclamation Techniques Toolbox may be applied to each route slated for reclamation to achieve desired outcomes.

L.7.4 Reclamation Standards

If disruptive reclamation techniques will be used in route reclamation, the reclamation standards listed below should be followed as applicable.

a. Routes slated for reclamation will not alter natural hydrologic function and condition of the affected watershed (e.g., closed routes will not divert runoff from natural drainage patterns).
b. Disturbed areas will be fully re-contoured and re-vegetated with BLM-approved seed mixtures or plantings.
c. Seeding will be done where necessary to aid reclamation of closed routes. Appropriate seed mixtures shall be selected for each site based on site conditions. Reclamation techniques include ripping the surface with a tractor to break up compacted soil and facilitate moisture retention. Broadcast seeding shall be done prior to winter. Some areas should be fenced to prevent disturbance and allow for grazing rest during the first two growing seasons. This technique is typically used near main roads where camping or parking may occur.
d. The BLM will utilize native material such as rock and large woody debris to the greatest extent practicable in combination with manufactured storm water structures (e.g., silt fence, straw waddles, etc.), and mechanical erosion control techniques (e.g., ripping, pocking, etc.) to minimize erosion and facilitate site stability.
e. Reclamation techniques for routes in designated wilderness and lands with wilderness characteristics will attempt to return the area to its original condition in the shortest amount of time.
f. Weed and vegetation treatment control measures will be implemented as needed to promote re-vegetation with native plants, prevent any new weed establishment, and control existing weed sources.

Consult Appendix C from the 2008 RMP for stipulations for surface-disturbing activities, which may apply to some forms of intrusive route reclamation.

L.8 CULTURAL RESOURCE CONSIDERATIONS

Properly considering cultural resources is a critical component of effective travel management:

> "The BLM must address cultural resources in consultation with state historic preservation officers and under various state-specific protocol agreements, if applicable. The cultural resource inventory strategy required to make TTM decisions should be commensurate to the identified risk to resources. This risk should be based on the known presence of historic properties or on the potential/likelihood for historic properties to occur in a given

area based on professional knowledge, judgment, and feedback received during the planning and consultation processes." (BLM 2016c)

Any and all cultural resource identification efforts, assessments, consultations, mitigations, treatments, protection measures, and/or site treatments for the Canyon Rims TMP have been addressed in separate NHPA Section 106 compliance documents and are therefore not addressed in this document. Cultural resource compliance documents for this TMP undertaking consist of (but are not limited to) a Class III Intensive Field Survey report (and any report amendments or addendums that may take place in the future), government-to-government Tribal consultation correspondences and documents, interagency consultation correspondences and documents (including the State Historic Preservation Office), consulting party consultation correspondences and documents, a HPTP developed through consultations under the Travel PA, and any HPTP amendments or addendums that may take place in the future. Any and all future decisions and actions regarding cultural resources for the Canyon Rims TMP undertaking will take place through the HPTP and any continuing project consultation, as guided by the Travel PA.

L.9 REVISED STATUTE 2477 ASSERTIONS

A travel management plan is not intended to provide evidence, bearing on, or address the validity of any Revised Statute 2477 (R.S. 2477) assertions. R.S. 2477 rights are determined through a process that is entirely independent of the BLM's planning process. Consequently, this TMP process does not take into consideration R.S. 2477 evidence. BLM bases travel management planning on purpose and need related to resource uses and associated access to public lands and waters given consideration to the relevant resources. At such time as a decision is made on R.S. 2477 assertions, the BLM will adjust its travel routes accordingly (BLM Manual 1626).

L.10 ROADSIDE CAMPING AND PULL-OFF CONSIDERATIONS

A management decision in the 2008 RMP allows dispersed camping "where not specifically restricted" and that "all vehicle use associated with dispersed camping activities is required to stay on designated routes." Another decision states that "parking areas associated with dispersed campsites will be marked during travel plan implementation." These decisions will be adhered to in implementing this TMP. Vehicle-based camping in the Highway 279/Shafer Basin/Long Canyon ACEC is restricted to designated campgrounds.

Regarding other incidental pull-off considerations such as passing, users are expected to comply with 43 CFR 8341.1 and not operate an OHV "in a manner causing, or likely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands."

L.11 GAME RETRIEVAL

The 2008 RMP does not allow OHV use off designated routes for big game retrieval.

L.12 NEEDED AUTHORIZATIONS

As part of implementing the TMP, the BLM may seek to acquire legal access to public land where appropriate and necessary. The BLM may also identify needs and request funding for access, exchanges, and acquisitions and incorporate them in the existing ranking system. Easements, ROWs, and permissive access license agreements may include the acquisition of road or trail easements or the issuance of ROWs on an existing or historic physical access. The BLM may pursue such actions where they may contribute to natural resource protection or recreation enhancement opportunities. Easements may be acquired through donation or purchase following the procedures set forth in the BLM's acquisition handbook (H-2100-1) (BLM 2002). Table L.6 in Section L.2.6 in this guide lists 2008 RMP public land access-related goals, objectives, and management decisions; some of these are related to needed authorizations. The BLM's Travel Management Manual provides guidance concerning authorized and permitted motorized uses (BLM 2016c).

L.13 GROUND TRANSPORTATION LINEAR FEATURE (GTLF) GEOSPATIAL DATA

The BLM's Travel Management Manual provides the following guidance concerning the maintenance of travel management geographic information systems (GIS) data in the GTLF format (BLM 2016c).

For GTLF adherence guidance, consult the BLM's GTLF data standard, data report, and data implementation guidelines (BLM 2014b, 2014c, and 2014d). A GTLF database is a geospatial database of motorized and non-motorized transportation linear features as they exist on the ground. Features include all linear features, not just what is within the BLM Transportation System.

The GTLF geodatabase exists to track route conditions and guide future management decisions. Utilized as an adaptive management tool, the geodatabase should be updated regularly to continually collect and update future changes in the transportation system, such as changing use patterns, incorrectly inventoried routes, and route migration. Tracking such changes would increase the effectiveness of implementation within the TMA by facilitating management adjustments and informing future management actions.

L.14 PRE- AND POST-TMP/EA MANAGEMENT ACTIONS IN GENERAL

Creating a TMP route network and analyzing the potential resource or resource use effects in an EA is a key component of travel management, but other important related actions take place before and after the TMP and its EA are approved. Many of these actions (monitoring, enforcement, etc.) are described in previous sections of this document. Active management of the routes in the TMA requires consistent monitoring and maintenance. Statewide, OHV recreation continues to increase, and the trend is expected to continue in this TMA as well. The BLM's Travel Management Manual provides a reminder on the importance of continuing TTM beyond the development of an initial TMP:

> [TTM] is a dynamic process. Upon completion of a TMP, the BLM should keep information and data concerning the travel network and transportation systems up to date, as staffing, budget and priorities allow. The BLM may modify the travel network and transportation systems through monitoring and adaptive management protocols or by specific BLM actions and authorizations. It is critical that the BLM continue TTM after completion of the initial TMP as a routine part of land management. (2016c)

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APPENDIX L-A. TRAVEL MANAGEMENT-RELATED GOALS OBJECTIVES, AND MANAGEMENT DECISIONS FROM 2008 RMPS

Table L.38: 2008 RMP Transportation Language

Transportation	
TRV-2	BLM, in preparing its RMP designations and its implementation-level travel management plans, is following policy and regulation authority found at: 43 CFR Part 8340; 43 CFR Subpart 8364; and 43 CFR Subpart 9268.
TRV-3	Provide opportunities for a range of motorized recreation experiences on public lands while protecting sensitive resources and minimizing conflicts among various users. Identification of specific designated routes will be initially established through the chosen Travel Plan accompanying this RMP (see Appendix N) and may be modified through subsequent implementation planning and project planning on a case-by-case basis. These identified routes will be available regardless of other management actions. These adjustments will occur only in areas with limited route designations and will be analyzed at the implementation planning level. These adjustments will be done through a collaborative process with local government and will include public review of proposed route changes. Site-specific NEPA documentation will be required for changes to the route designation system.
TRV-4	All areas are limited, open, or closed to motorized travel. Limit travel by motorized vehicle on all lands administered by the MFO to designated routes, except for Managed Open Areas, and for areas that are closed to motorized travel (see Map 30; see Appendix N for Travel Plan development).
TRV-5	BLM could impose limitations on types of vehicle allowed on specific designated routes if monitoring indicates that a particular type of vehicle is causing disturbance to the soil, wildlife, wildlife habitat, cultural or vegetative resources, especially by off-road travel in an area that is limited to designated roads.
TRV-6	OHV access for game retrieval, antler collection and dispersed camping will only be allowed on designated routes (designated routes/spurs and have been identified specifically for dispersed camping; parking areas associated with dispersed campsites will be marked during travel plan implementation). Adherence to the Travel Plan is required for all activities, except where otherwise explicitly permitted.
TRV-7	Only designated roads and managed open areas are available for motorized commercial and organized group use (see Maps 2 and 3 for route designations).
TRV-8	Where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse impacts, the authorized officer shall close or restrict such areas. The public will be notified as to these closures and restrictions.
TRV-9	Any routes that are not baseline routes will be signed "Closed" on the ground. Such routes will be considered as impacts to the area's natural character, and use of such routes will be considered cross country use and not allowed. Non-inventoried routes should be rehabilitated.
TRV-10	**OHV Designations:** • About 339,298 acres will be closed to OHV travel. • About 1,481,334 acres will be limited to designated routes. • Approximately 2,000 acres (White Wash Sand Dunes) will be open to cross country travel (see Map 30).
TRV-11	**Designated Routes – Motorized:** • Designate 3,693 miles of motorized routes. • Designate 313 miles for motorcycles (163 miles on inventoried routes and 150 miles on inventoried single-track). • Designate a dirt bike route from Colorado State Line to Thompson (see Map 3), utilizing 9 miles of single-track designated above and 22 miles of inventoried Grand County roads. These totals are reflected in the mileage under "designated routes."
Recreation and Off-Highway Vehicles	

REC-5	Recreational off-highway vehicle (OHV) and mechanized travel will be consistent with area and route designations described in the travel management plan. BLM will work with agency and government officials and permit holders to develop procedures, protocols, permits or other types of authorization, as appropriate, to provide reasonable access for non-recreational use of OHVs for military, search and rescue, emergency, administrative, and permitted uses.
REC-6	Dispersed camping is allowed where not specifically restricted. Dispersed camping may be closed seasonally or as impacts or environmental conditions warrant. All vehicle use associated with dispersed camping activities is required to stay on designated routes.
REC-14	Continue to manage Kane Creek Road to Hurrah Pass and the roads to Needles, Anticline, and Minor overlooks as Utah Scenic Backways.
REC-36	Canyon Rims SRMA (excerpts): • Manage the entire area as OHV travel limited to designated roads. • Manage Hatch Wash and the lower section of West Coyote Creek for primitive, nonmotorized recreation. • Restrict backcountry motorized events to commercial and non-race special events on the Flat Iron Mesa Jeep Safari route only. Focus Area -- Non-mechanized Recreation (3,642 acres): Hatch Wash Hiking and Backpacking Focus Area inclusive of the area from Goodman Canyon to the confluence of Hatch Wash with Kane Creek Canyon including the lower section of West Coyote Creek (from private land west to confluence with Hatch Wash) and the lower section of Troutwater Canyon. • New motorized routes will not be considered in the Hatch Wash Hiking and Backpacking Focus Area. • **Focus Area -- Scenic Driving Corridors:** Needles and Anticline Roads – Utah Scenic Backways. Manage for scenic driving enjoyment. The corridor is defined as having a width of 1/2 mile from centerline (or to border of adjoining Focus Area).
REC-37	Colorado Riverway SRMA (excerpts): • Manage the Colorado Riverway as a Destination SRMA to manage camping, boating, river access, trail, and interpretive facilities in popular areas along or near the Colorado River and to protect the outstanding resource values of the area. Guidance for management is included in the Colorado Riverway Recreation Area Management Plan. • Manage the Kane Creek Crossing area to emphasize responsible designated camping and scenic touring. • Manage the Shafer Basin addition to emphasize scenic backcountry driving opportunities (no camping allowed in this area). • Restrict motorized and mechanized travel to designated routes. • **Focus Areas -- Scenic Driving Corridors:** These corridors include Highways 128 and 279 (which are both designated Utah Scenic Byways), as well as the Kane Creek/Hurrah Pass portion of the Lockhart Basin Scenic Backway and the BLM portion of the La Sal Mountain Loop Road Scenic Backway. Manage for scenic driving enjoyment. The corridor is defined as having a width of 1/2 mile from centerline, or line of sight or to border of adjoining Focus Area (whichever is shorter; see VRM for management prescriptions).
Other Resources and Off-Highway Vehicles	
SOL-WAT-20	No additional OHV routes will be allowed in saline soils other than those already designated in the Travel Plan accompanying this RMP (see Appendix N). An exception will be considered on a case-by-case basis for proposed routes in the Dee Pass Motorized Focus Area and in the Utah Rims SRMA. Exceptions could also be considered on a case-by-case basis outside these two areas if potential impacts could be mitigated and if the action will benefit other natural and cultural resources.
WSR-4	OHV travel will be limited to designated routes or closed, depending on the river segment.

APPENDIX L-B. MONITORING SUPPORT MATERIALS

Route-by-Route Monitoring and Mitigation

Table L.12: Route-by-Route Monitoring and Mitigation Details (Selected Alternative)

Route Number	Designation	Monitoring and Mitigation	Miles
B142	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	5.2
D0586	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	2.1
D0605	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	4.1
D0606b	OHV-Open	Maintenance: Signing - Directional	1.0
D0610	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	5.6
D0613	OHV-Open	Maintenance: Maintain historic integrity; Mitigation: Signing - Regulatory; Mitigation: Signing - Interpretive	1.0
D0614	OHV-Open	Mitigation: Signing - Regulatory	10.8
D0615	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	3.9
D0616a	OHV-Open	Maintenance: Signing - Directional	3.4
D0616b	OHV-Open	Maintenance: Signing - Directional; Mitigation: Relocate all or part of route to avoid sensitive resources	0.6
D0617a	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.3
D0621	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	10.5
D0624	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory; Maintenance: Erosion control	4.5
D0660a	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Route proliferation	1.5
D0661	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory; Monitoring: Route proliferation	4.0
D0662a	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional; Mitigation: Fence adjacent sensitive resources	1.0
D1075	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1153a	OHV-Open	Mitigation: Signing - Regulatory	1.5
D1213	OHV-Open	Mitigation: Signing - Regulatory	0.1
D1275	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1347	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.7
D1357	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	1.1
D1415	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Unauthorized camping	0.3
D1470	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1471	OHV-Open	Mitigation: Signing - Regulatory	0.1
D1472	OHV-Open	Maintenance: Signing - Directional	0.5
D1473	OHV-Open	Mitigation: Signing - Regulatory	0.1
D1474	OHV-Open	Maintenance: Signing - Directional	0.3
D1495	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	3.6
D1496	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.4
D1499	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.6
D1506	OHV-Open	Maintenance: Signing - Directional	2.4
D1507	OHV-Open	Maintenance: Signing - Directional	0.8
D1508	OHV-Open	Maintenance: Signing - Directional	0.6
D1510	OHV-Open	Maintenance: Signing - Directional	0.4
D1513a	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.2
D1513b	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.1
D1515	OHV-Open	Maintenance: Signing - Directional	4.6
D1518	OHV-Open	Maintenance: Signing - Directional	0.6
D1519	OHV-Open	Maintenance: Signing - Directional	2.9
D1520	OHV-Open	Maintenance: Signing - Directional	0.4

Route Number	Designation	Monitoring and Mitigation	Miles
D1521	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.6
D1522	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.2
D1548	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.2
D1549	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.5
D1609	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.7
D1611	OHV-Open	Mitigation: Signing - Regulatory	0.04
D1616	OHV-Open	Mitigation: Signing - Regulatory	0.8
D1622a	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional; Other Management: Close route beyond stock pond	0.5
D1629	OHV-Open	Maintenance: Signing - Directional	0.6
D1630	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.9
D1636a	OHV-Open	Maintenance: Signing - Directional	0.5
D1637	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Interpretive	0.3
D1638	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Interpretive	0.1
D1645	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional; Mitigation: Signing - Interpretive; Mitigation: Fence adjacent sensitive resources; Monitoring: Route proliferation; Maintenance: Harden stream crossing; Maintenance: Erosion control	7.4
D1772	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.1
D1773	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1783	OHV-Open	Maintenance: Signing - Directional	1.5
D1827	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Route proliferation	0.5
D1828	OHV-Open	Maintenance: Signing - Directional; Maintenance: Extend route to complete loop; Mitigation: Signing - Regulatory	0.2
D1850	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	3.7
D2394	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.3
D2395	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.2
D2403	OHV-Open	Maintenance: Signing - Directional	0.4
D2421	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.2
D2499	OHV-Open	Maintenance: Signing - Directional	1.3
D2549	OHV-Open	Mitigation: Signing - Regulatory	0.05
D2554	OHV-Open	Mitigation: Signing - Regulatory	0.1
D2555	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.3
D2613	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Route proliferation	0.4
D2740	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.8
D2743	OHV-Open	Maintenance: Signing - Directional	2.1
D4816a	OHV-Open	Maintenance: Signing - Directional	0.4
D5332	OHV-Open	Maintenance: Signing - Directional	0.5

Settlement Agreement Monitoring Requirements

The BLM needs to comply with the 2017 Settlement Agreement which resulted from Southern Utah Wilderness Alliance, et al. v. U.S. Department of the Interior, et al., Case No. 2:12-cv-257 (D. Utah), hereinafter referred to as the 2017 Settlement Agreement.

Below are monitoring requirements from the 2017 Settlement Agreement that apply to the Moab FO (among other BLM offices in Utah), and therefore the Canyon Rims TMA.

Monitoring During and After Travel Planning

20. **Monitoring in the Moab, Price, Moab, and Kanab TMAs**

a. **Baseline Monitoring Report.** Except for the Henry Mountains and Fremont Gorge TMA, for each TMA identified in paragraph 13, BLM will complete a baseline monitoring report that will document visually-apparent unauthorized surface disturbances off routes as well as visually-apparent damage to public lands resources caused by OHV vehicle use within WSAs, Natural Areas, and/or lands with BLM-inventoried wilderness characteristics. To create the baseline monitoring report, BLM will physically inspect those portions of routes within the TMA that are within or constitute a boundary to a WSA, Natural Area, and/or lands with BLM-inventoried wilderness characteristics. For those portions of routes, BLM will document by site photography and written narrative each disturbance and damage site. At a minimum, BLM will document the following information: (1) the geospatial coordinate of the site of disturbance or damage; (2) the route number or other identifier where the disturbance or damage was observed, the date of the physical inspection, the TMA in which the inspection took place, and the name of the inspector; (3) the observed usage intensity (i.e., none, light, medium, or heavy); (4) the apparent geographic extent of the disturbance or damage; and (5), if possible, (a) the apparent type of motorized vehicle(s) that caused the disturbance or damage, (b) the apparent purpose of the disturbance (e.g., short spur, dispersed camping, play area, or inadvertent travel), and (c) the type of public land resource damaged by motorized vehicle use. The baseline monitoring report will include the information gathered and recorded during the physical inspection, as well as maps showing the location and nature of any documented disturbance or damage sites. BLM will make its baseline monitoring report available for public review at the same time as the preliminary route evaluation documents identified in paragraph 16.d. BLM need not complete the baseline monitoring report prior to that time, but may do so at its discretion. Baseline monitoring reports described in this paragraph may be used to explain or support any BLM final agency action, but do not themselves constitute final agency action.

b. **Monitoring during planning.** After BLM completes the baseline monitoring report required by paragraph 20.a, BLM will, at least one time per year, inspect all sites where BLM's baseline monitoring report previously identified disturbance and damage. If BLM receives credible information that any new visually-apparent unauthorized surface disturbances off routes or visually-apparent damage to public lands resources caused by motorized vehicle use (1) has occurred along those portions of routes within the TMA that are within or constitute a boundary to a WSA, Natural Area, and/or lands with BLM-inventoried wilderness characteristics and (2) is adversely affecting public land resources, then BLM will inspect the portion of that route, subject to available personnel and passable route conditions. BLM will document its inspection and monitoring of these sites during planning by site photography and written narrative describing each disturbance and damage site. BLM's documentation will include, at a minimum, the following information: (1) the geospatial coordinate of the site of disturbance or damage; (2) the route number or other identifier where the disturbance or damage was observed, the date of physical inspection, the TMA in which the inspection took place, and the name of the inspector; (3) the observed usage intensity (i.e., none, light, medium, or heavy); (4) the apparent geographic extent of the disturbance or damage; and (5), if possible, (a) the apparent type of motorized vehicle(s) that caused the disturbance or damage, (b) the apparent purpose of the disturbance (e.g., short spur, dispersed camping, play area, or inadvertent travel), and (c) the type of public land resource damaged by motorized vehicle use. BLM's documentation and/or reports described in this paragraph may be used to explain or support any BLM final agency action, but do not themselves constitute final agency action. BLM will undertake monitoring more frequently if it determines additional monitoring is warranted. BLM's monitoring obligation

identified in this paragraph for the TMAs identified in paragraph 13 will terminate when BLM issues the new TMP for that TMA, regardless of whether administrative or judicial review is sought.

22. **Consideration of Considerable Adverse Effects.**

a. Any party to the agreement may provide BLM with evidence that (1) motorized vehicle use is causing or will cause considerable adverse effects as set forth in 43 C.F.R. § 8341.2(a) or (2) that action is required to protect persons, property, and public lands and resources pursuant to 43 C.F.R. § 8364.1. When BLM receives such information, it will promptly make such information available to all parties to the Settlement Agreement. BLM will provide a written response assessing whether action pursuant to § 8341.2(a) or §8364.1 is necessary to the party submitting such information as well as all other parties to the agreement within 90 days of receiving the information.

b. BLM will consider the information collected during monitoring identified in paragraphs 20-21 of this Settlement Agreement and any other relevant information to determine whether motorized vehicle use is causing or will cause considerable adverse effects as set forth in 43 C.F.R. § 8364.1. If so, BLM will take appropriate management action.

c. The obligations outlined in this paragraph start on the effective date of this 2017 Settlement Agreement and end eight years after this Settlement Agreement becomes effective, provided that nothing in this Settlement Agreement exempts or absolves BLM from compliance with applicable regulations, including 43 C.F.R. subparts 8341 and 8364.

23. **Monitoring after TMPs are issued.** BLM will develop a long-term motorized vehicle monitoring protocol as part of each new TMP prepared for the TMAs identified in paragraph 13. BLM's proposed long-term monitoring protocol will be outlined in the draft and final NEPA document for each TMP, and the public, cooperating agencies, and other stakeholders will have an opportunity to provide input on each TMP's long-term monitoring protocol during the relevant public comment period. Each TMP's long-term monitoring protocol will become effective as provided in the applicable TMP. Once each TMP is issued, the long-term monitoring protocol specific to that TMP will apply and not the terms of this Settlement Agreement.

Example Monitoring Form

Recreation Monitoring Report

Observer: _____ Date: _____
Location: GPS/UTM or Township/Range/Section: _____
Topographic /Quad: _____
Describe Specific Location:

What was observed: (Check the appropriate items and describe them below) Please be very specific with your observations.
_____ Off-Road Vehicle Activity (Car, Truck, OHV; Recent/Old)
_____ How many vehicles were observed
_____ Use of Mechanized Equipment off road (What type)
_____ Litter/Dumping (Quantity consisting of what items)
_____ Cutting Wood/Vegetation (What kind and how severe)
_____ Destroyed Property, government, state, and private (What type)
_____ Evidence of Human Waste (including toilet paper).
_____ Boundary Signs (Apparent, Replacement necessary, Need for signing)
_____ Number of people encountered and from what state
_____ Other (describe) _____

Corrective action taken:

Recommended corrective action:

Was anyone contacted? What was said?

Additional comments

Strategies and Schedules

Travel Management				
Location(s)	Issue/Objective	Indicator (what)	Protocol (how/methods)	Trigger/Action
Designated road/trail system	Management of designated system	• Number of roads/trails meeting targeted maintenance intensities • Placement and retention of all signing	Road/trail condition assessments	
		Average daily traffic	Traffic counters on key roads/trails	
		Number of illegal, off-system vehicle incursions	• Visual inspections • NAU protocols	

Soil, Water, and Air				
Location(s)	Issue/Objective	Indicator (what)	Protocol (how/methods)	Trigger/Action
TMA-wide	Study the effects of continuing erosion that endanger floodplain soils. Map out these areas.	• Gully, rill, and sheet erosion • Vegetative cover • Compaction	• Monitor erosion • Monitor vegetative cover • Monitor impacts and gully progressions • Collect and analyze sedimentation and erosion data	
Wildfire burns and other select disturbed areas	Assess the effects of disturbance and reclamation	• Erosion or stabilization • Vegetative cover	Visual inspection	• Large wildfire • Erosion and flooding

Recreation				
Location(s)	Issue/Objective	Indicator (what)	Protocol (how/methods)	*Trigger/Action
SRMAs	Produce targeted recreation opportunities specific to each SRMA (or RMZ within the SRMA if RMZs are established in the future).	Realization of targeted benefits for each SRMA.	• Visitor surveys • Focus groups	Targeted recreation benefits not realized
		Physical setting conditions, such as remoteness, naturalness, facilities	• Monitor "development creep" with regard to authorizing expansion of designated road systems and recreation facilities into settings targeted as more primitive; monitor lack of development in SRMAs where development was targeted • Monitor landscape change via VRM	
		Social setting conditions, such as group size, encounters with other users, and evidence of use	• Existing NAU protocols for evidence of use (rapid site inventory, human impact site monitoring) • Actual counts for group size and encounters	
		Administrative setting conditions, such as visitor services, management controls, mechanized use	• Monitor level of effort to provide visitor information and assistance appropriate to targeted settings • Monitor level of regulation, signing, and permitting applied as appropriate to targeted settings	

APPENDIX L-C. ROUTE RECLAMATION

Closed OHV Routes and Travel Maps

In general, OHV-closed routes should not appear on the travel map associated with the TMP. However, the BLM may choose to include some OHV-closed routes on maps as helpful points of reference or when needed or helpful for authorized users.

Disguising Routes with Natural Materials

This method, sometimes referred to as "vertical mulching," is used to hide routes from view. If routes are not on travel maps and are not evident to visitors, they will be unlikely to receive additional use. Often, the first several hundred feet of illegal routes or routes slated for reclamation may be disguised to look like surrounding areas by placing rocks, dead wood and plants, and in some cases planting live vegetation in a natural-looking arrangement. Where possible, materials used should be large enough and abundantly placed in order to deter people familiar with route locations from easily removing them. In some cases, mechanical tools such as shovels, rakes, and other hand tools may be employed to obliterate embankments, ruts, water bars and ditches.

Ripping and Reseeding Routes

This process mechanically removes routes from the landscape and revegetates them. Native seed mixes should be used. Mechanical removal may be accomplished by hand or, among other methods, with the use of power equipment, excavators, bulldozers, or harrow or seed drills. Herbicides may also be used for revegetation. Based on site-specific conditions, seeding and planting treatments may include:

- Preparing a seedbed.
- Selecting an appropriate seed mix.
- Applying the seed.
- Covering the seed.

Due to the broad spectrum of situations encountered, all possible treatment options and combinations of treatments may be utilized. This process ultimately results in closed routes becoming undetectable.

Barrier Installation

In locations where it is impractical to employ any of the previous methods (e.g., extremely rocky areas) and in areas where administrative use may occasionally be required on a route closed to the public, it may be necessary to install natural or human-made barriers such as large boulders, fences with gates, or other barriers to physically prevent unauthorized use. Where possible and practical, these measures may be removed when routes are reclaimed or fully disguised.

Closing Routes with Informational Signs

This measure may be applied in cases where the previous measures have failed and ripping and seeding or the use of physical barriers is impractical or ineffective. It may also be used on routes

to establish an “administrative use only” designation or to identify seasonal closures. Signs may be clearly marked and placed in locations where they may be highly visible. Signs should be removed when routes are reclaimed or fully disguised.

Other Reclamation Considerations

In general, route closures for recreation are most effective when the designated route system provides the desired recreational opportunities, and closed routes are completely naturalized to eliminate the visual remnants of the former routes. Therefore, route closures will be most effective when any new routes, route redesigns, or reroutes within the transportation system are completed prior to implementation of route reclamation efforts.

A first step in reclamation is to obliterate obvious tracks and other evidence of use on closed routes. Techniques to accomplish this include hand-raking and cutting track edges or berms to break up straight lines. Additional techniques include placing small rocks on routes and mulching routes with local vegetation or dead plant materials. Reclamation actions would typically be limited to the portion of an unauthorized route that is within line of sight from an open route. The objective of obscuring the route to the visual horizon is to blend the disturbed area into the landscape, therefore discouraging continued use of closed routes and reducing the need for signage. The work may be limited to existing surface disturbance, and any reclamation work should first be cleared with the appropriate BLM office’s Authorized Officer. A travel route that has historical significance (e.g., an old wagon trail) will not be subjected to any surface disruption. Because surface-disturbing reclamation actions may draw public attention to reclamation sites, the BLM may choose to provide informative signs near the sites that explain the need for and value of resource protection.

Where practicable, reclamation actions may include leaving the beginning portion of a closed route exposed. This would provide pullout areas or dispersed camping opportunities and is likely to discourage or prevent new surface disturbances elsewhere. Also, where appropriate, management may direct travel along open routes to concentrate traffic on maintained routes away from closed routes. This could include focusing maintenance on certain routes far from closed routes. Users may be more attracted to such well-maintained routes because of a more comfortable travel experience. Signing that strategically emphasizes use of routes far away from closed routes could also concentrate traffic away from closed routes. Routes far from closed routes could be well-signed and more emphasized in interpretive materials while routes near closed routes could receive minimal signing and low levels of publicity.

Reclamation Techniques Toolbox

A full suite of reclamation techniques may be employed throughout the TMA, depending on the appropriateness of the method for each route. While most routes may be reclaimed naturally, some may require more intrusive, surface-disturbing restoration methods. The full suite of closure reclamation techniques considered for use within the TMA is described in the Reclamation Techniques Toolbox below. As deemed appropriate by BLM management, these closure methods may be used in any combination for each route.

Table L.40: Reclamation Techniques Toolbox

Manual Techniques	
Passive/ natural reclamation	Allow the route to naturally reclaim without any signing, surface disturbance, or replanting of vegetation. This method is proposed in lightly used areas and on routes where restoration is already occurring. The goal is to avoid attracting attention by not signing or fencing these lightly used routes. This is the least obvious method of closure, least costly to the BLM, and provides a high degree of naturalness when successfully implemented.
Fence and sign/fence only/gate	This method applies to upland routes, dry wash routes and routes limited to authorized users for administrative use. This type of closure has little surface disturbance and is used in areas where fence cutting would be expected to be minimal. Generally, the fence type would be T-post and four strand smooth wire; however, the fence type could be increased to pipe rail/steel rail as needed while still maintaining a small footprint at the beginning or end of a route. Fencing and signs can later be removed to complete the reclamation process. A locked gate could be used to control unauthorized use on routes limited to authorized users such as grazing permittees and BLM staff.
Sign only	This method applies mainly to upland routes in lightly used areas and is proposed for routes in lightly used areas and/or in areas where compliance with signage is expected to be good. The signage can later be removed to complete the reclamation process.
Rake out tracks only	This applies mainly to sandy washes where erasing the evidence of use in lightly used areas may be enough to prevent attracting future use. This is very light on the land and provides a high degree of naturalness when done. The goal is to avoid attracting attention to lightly used routes. Monitoring and raking is required to ensure effectiveness and may be required for up to one year.
Rake out tracks and sign	This method applies mainly to sandy washes in lightly used areas. A sign reinforces the closure by placing physical notice for visitors and to assist law enforcement. This method is low cost to the BLM and provides a moderate degree of naturalness when complete. A downside to this method is the potentially high number of closed signs that can accumulate in a given area and the public perception that many routes are being closed, leading to vandalism. Monitoring is required to ensure effectiveness. Signage can be removed to complete the reclamation.
Vertical mulch with berm/ fence and sign	This method works in upland areas where occasional use of routes in lightly used areas prevents natural restoration. A sign provides physical notice and assistance to law enforcement. A T-post and four strand smooth wire fence works best when the fence is placed in an area where bypassing it is difficult. Combined with a sign and/or fencing, actively placing cuttings of sagebrush, transplanted bushes, and scattering dead vegetation in the wheel tracks may be enough to prevent use. Placement of plants in the closed route to the visible horizon minimizes cost and surface disturbance. Seed mixtures may also be applied to enhance the effectiveness of reclamation.
Barriers	Physical blockades constructed to prevent the passage of vehicles. Barriers may be earthen mounds, wire fence, pipe rail fence, post and cable fence, concrete wall sections (also referred to as Jersey or K-rail barriers), or free-standing steel structures commonly referred to as Normandy barriers. To the greatest extent practicable, the BLM may utilize native, natural materials, such as rocks, vegetative debris and wood to minimize further visual impacts to the landscape. For example, wooden split rail fencing may be preferable to metal fencing.

Fence/ barrier with signs and parking area	Where an open route dead-ends at a closed route or limited use route, the BLM may develop a simple trailhead at the end of the open, motorized route, with parking space and signage indicating the shift in authorized uses. This would clearly demarcate the boundary between the terminus of an open route and the beginning of a closed or limited use route. By making it evident that a closed route is still open to other forms of use (typically non-motorized and/or non-mechanized uses), this closure method eases the transition from one use to another. Thus, this method of closure may lessen public opposition to route closures and increase public compliance with route designations.
Mechanical Techniques	
Berm with signs	This method would be applied in upland areas where a berm cannot be bypassed. This type of closure has less surface disturbance because soil is only moved to create a berm at the beginning or end of a closed route. Signage provides physical notice to visitors and assistance to law enforcement. The berm stands as an indicator of closure if the sign is removed, providing additional notice to visitors. After a route has restored, berms can be removed or flattened to complete the reclamation process.
Rip/ harrow	A more expensive but effective way to eliminate route use and expedite vegetation regrowth. These techniques are necessary in high use areas where use is likely to continue on a route if it is not made completely obvious that the route is being restored. 100% of a closed route surface is disturbed by this method. A tractor-towed disc harrow or a finger-type winged ripper mounted on a tractor or bulldozer would be the typical equipment used. Benefits include reduced soil compaction and improved seed germination and establishment. Drawbacks to these methods are: (1) significant plant growth (20% cover) may take up to five years; (2) no regrowth may occur if barriers are bypassed and use continues on the ripped roadbed; (3) the complete removal of existing vegetation resulting in a temporarily prominent disturbed area; (4) increased likelihood of invasive weed infestation, and (5) possible disturbance of undiscovered subsurface cultural resources. Under this method, soils would be ripped or harrowed to a depth of 18 to 24 inches. Preferably compacted soils would be ripped in two passes at perpendicular directions to a minimum depth of 1,824 inches at a furrow spacing of no more than 2 feet.
Engineering/ Grading	If a closed route begins at a route that is regularly maintained with heavy equipment (Maintenance Intensity Level 5), the main route may be maintained in such a way that there is a formidable ditch and berm on the sides of the route, deterring illegal motorized travel on the closed route.

Table L.41: Routes to be Reclaimed (Selected Alternative)

Route Number	Initial Restoration Prescription
D0585a	Fence or barrier to natural barrier
D0606a	Sign closed
D0607	Natural rehabilitation
D0617b	Natural rehabilitation
D0622	Natural rehabilitation
D0660b	Natural rehabilitation
D1080c	Natural rehabilitation
D1106	Natural rehabilitation
D1141	Natural rehabilitation
D1144	Natural rehabilitation
D1153b	Natural rehabilitation
D1172b	Natural rehabilitation
D1353	Natural rehabilitation

Route Number	Initial Restoration Prescription
D1356	Sign closed
D1360	Sign closed
D1417	Natural rehabilitation
D1419	Natural rehabilitation
D1426	Natural rehabilitation
D1436	Natural rehabilitation
D1475	Sign closed
D1476	Sign closed
D1483	Sign closed
D1487	Sign closed; Natural rehabilitation
D1488	Sign closed; Natural rehabilitation
D1489	Sign closed; Natural rehabilitation
D1493	Sign closed
D1512	Natural rehabilitation
D1608	Sign closed; Natural rehabilitation
D1610	Sign closed
D1612	Sign closed; Natural rehabilitation
D1613	Sign closed; Natural rehabilitation
D1614	Sign closed; Natural rehabilitation
D1615	Sign closed; Natural rehabilitation
D1617	Sign closed
D1618	Sign closed
D1619a	Sign closed
D1619b	Sign closed
D1621	Sign closed
D1622b	Natural rehabilitation
D1623	Sign closed
D1624	Sign closed
D1625	Sign closed
D1627	Natural rehabilitation
D1628	Sign closed
D1632	Natural rehabilitation
D1636b	Sign closed; Natural rehabilitation
D1639	Sign closed
D1640	Sign closed
D1641	Sign closed
D1642	Sign closed; Natural rehabilitation
D1643	Sign closed
D1776	Natural rehabilitation
D1777	Natural rehabilitation
D1779	Natural rehabilitation
D1829	Sign closed

Route Number	Initial Restoration Prescription
D1831	Sign closed
D1845	Sign closed
D1847	Sign closed
D1848	Sign closed
D1849	Sign closed
D1854	Natural rehabilitation
D2401	Sign closed
D2416	Natural rehabilitation
D2419	Natural rehabilitation
D2423	Natural rehabilitation
D2453	Natural rehabilitation
D2455a	Natural rehabilitation
D2497	Natural rehabilitation
D2500	Natural rehabilitation
D2501	Natural rehabilitation
D2502	Natural rehabilitation
D2503	Natural rehabilitation
D2505	Sign closed
D2506	Fence or barrier to natural barrier
D2546	Sign closed; Natural rehabilitation
D2547	Sign closed; Natural rehabilitation
D2548	Sign closed; Natural rehabilitation
D2550	Sign closed
D2551	Sign closed
D2552	Sign closed; Natural rehabilitation
D2553	Sign closed; Natural rehabilitation
D2556	Natural rehabilitation
D2557	Sign closed; Natural rehabilitation
D2599	Natural rehabilitation
D2600	Natural rehabilitation
D2601	Natural rehabilitation
D2602	Natural rehabilitation
D2603	Natural rehabilitation
D2619	Sign closed
D2622	Sign closed
D2719	Natural rehabilitation
D4814	Natural rehabilitation
D4816b	Natural rehabilitation
D4817	Sign closed
D4819	Sign closed
D4820	Sign closed
D4821	Sign closed

Route Number	Initial Restoration Prescription
D4823	Natural rehabilitation
D4824	Natural rehabilitation
D4825	Natural rehabilitation
D4826	Natural rehabilitation

APPENDIX L-D. TRAVEL MANAGEMENT AND ROUTE DESIGNATION GUIDANCE FOR KEY PROTECTED AREAS

Overview

Some special designation rules apply to wilderness, Wild and Scenic Rivers (WSRs), Wilderness Study Areas (WSAs), and inventoried LWCs. The TMA includes various LWC units. It does not currently contain WSAs, though they could be established in the future. Also, no TMA LWC units are currently managed for wilderness characteristics in the RMP, but that could change with RMP revisions. Therefore, guidance for all special designations below is included in this Guide.

Wilderness

The BLM's wilderness management manual (BLM 2012h) contains guidance about routes and vehicles in wilderness areas. It lists permanent roads, temporary roads, motor vehicles, and mechanical transport as prohibited uses in wilderness areas. Pages 1-12 to 1-13 of the manual provide more specifics. The BLM's wilderness manual also provides details on exceptions to these prohibitions on pages 1-15 to 1-17. Information on access authorizations in wilderness areas is provided on pages 1-30 to 1-31. The manual provides guidance on trails and trail systems (including new construction and access points) on pages 1-40 to 1-41.

Wild and Scenic Rivers

The BLM's wild and scenic rivers manual (BLM 2012i) provides some travel management guidance in the context of rivers officially designated as wild and scenic and rivers that are eligible and suitable for such a designation but not designated. According to the manual, for both designated and eligible/suitable wild and scenic rivers, "motorized and mechanized travel on land or water may be permitted, prohibited, or restricted to protect the river values" (BLM 2012i). For designated wild and scenic rivers, the BLM manual provides the following guidance under the heading of "Transportation System":

1. *Wild*. New roads are not generally compatible with this classification. A few existing roads leading to the boundary of the river corridor may be acceptable. New trail construction should generally be designed for nonmotorized uses. However, limited motorized uses that are compatible with identified values and unobtrusive trail bridges may be allowed. In order to protect and enhance river values, the BLM should consider restrictions or prohibitions of new airfields if such development is proposed.
2. *Scenic*. New roads and railroads are permitted to parallel the river for short segments or bridge the river if such construction fully protects river values (including the river's free-flowing condition). Bridge crossings and river access are allowed. New trail construction or airfields must be compatible with and fully protect identified values.
3. *Recreational*. New roads and railroads are permitted to parallel the river if such construction fully protects river values (including the river's free-flowing condition). Bridge crossings and river access are allowed. New trail construction or airfields must be compatible with and fully protect identified values.

For eligible/suitable wild and scenic rivers, the BLM manual provides the following guidance under the heading of "Transportation System":

1. *Wild*. New roads and airfields are not generally compatible with this classification. A few existing roads leading to the boundary of the river corridor may be acceptable. New trail construction should generally be designed for non-motorized uses. However, consider allowing limited motorized uses and unobtrusive bridges that are compatible with identified values.
2. *Scenic*. New roads and railroads may be allowed to parallel the river for short segments or bridge the river if such construction fully protects river values (including the river's free-flowing condition). Bridge crossings and river access are allowed. New trail construction or airfields should be compatible with and fully protect identified values.
3. *Recreational*. Consider permitting new roads and railroads that parallel the river if such construction fully protects river values (including the river's free-flowing condition). Bridge crossings and river access are allowed. Consider new trail construction or airfields that are compatible with and fully protect identified values.

Wilderness Study Areas

In WSAs, OHV and mechanized route use is permitted to continue along certain existing routes, but the BLM is not to designate OHV or mechanized routes and is to instead classify them as "primitive routes." However, primitive routes can be designated as non-motorized and non-mechanized trails. So, to summarize, in WSAs, OHV use is allowed to continue on some routes, but these routes are not to receive comprehensive individual route designations—unless such designations are non-motorized/non-mechanized (BLM 2016c). Below is the specific related language from the BLM's travel management manual:

1. In wilderness study areas, the BLM may permit motorized and mechanized use to continue along existing routes identified in the wilderness inventory conducted in support of sections 603 and 202 of FLPMA. In these cases, the BLM delays final route classification until Congress takes action or the final land use plan decision is to close those routes to motorized and mechanized use. The BLM will not designate primitive roads and motorized/mechanized trails within Wilderness Study Areas (WSA) and will not classify them as assets. The BLM will identify any motorized/mechanized Transportation linear feature located within these areas in a transportation inventory as a motorized/mechanized "primitive route" (see Glossary of Terms).
2. Primitive routes will not become part of the transportation system, classified as a transportation asset, or entered into the FAMS unless they meet one of the following conditions: the BLM designates the routes as non-motorized and nonmechanized trails or Congress releases the WSA from wilderness consideration and the BLM designates the routes.

In paragraph 20a., the 2017 Settlement Agreement provides details on baseline monitoring report requirements applicable to visually apparent impacts off routes in WSAs, LWCs, and BLM natural areas. See the "

Route Number	Designation	Monitoring and Mitigation	Miles
B142	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	5.2
D0586	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	2.1

Route Number	Designation	Monitoring and Mitigation	Miles
D0605	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	4.1
D0606b	OHV-Open	Maintenance: Signing - Directional	1.0
D0610	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	5.6
D0613	OHV-Open	Maintenance: Maintain historic integrity; Mitigation: Signing - Regulatory; Mitigation: Signing - Interpretive	1.0
D0614	OHV-Open	Mitigation: Signing - Regulatory	10.8
D0615	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	3.9
D0616a	OHV-Open	Maintenance: Signing - Directional	3.4
D0616b	OHV-Open	Maintenance: Signing - Directional; Mitigation: Relocate all or part of route to avoid sensitive resources	0.6
D0617a	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.3
D0621	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	10.5
D0624	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory; Maintenance: Erosion control	4.5
D0660a	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Route proliferation	1.5
D0661	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory; Monitoring: Route proliferation	4.0
D0662a	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional; Mitigation: Fence adjacent sensitive resources	1.0
D1075	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1153a	OHV-Open	Mitigation: Signing - Regulatory	1.5
D1213	OHV-Open	Mitigation: Signing - Regulatory	0.1
D1275	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1347	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.7
D1357	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	1.1
D1415	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Unauthorized camping	0.3
D1470	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1471	OHV-Open	Mitigation: Signing - Regulatory	0.1
D1472	OHV-Open	Maintenance: Signing - Directional	0.5
D1473	OHV-Open	Mitigation: Signing - Regulatory	0.1
D1474	OHV-Open	Maintenance: Signing - Directional	0.3
D1495	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	3.6
D1496	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.4
D1499	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.6
D1506	OHV-Open	Maintenance: Signing - Directional	2.4
D1507	OHV-Open	Maintenance: Signing - Directional	0.8
D1508	OHV-Open	Maintenance: Signing - Directional	0.6
D1510	OHV-Open	Maintenance: Signing - Directional	0.4
D1513a	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.2
D1513b	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.1
D1515	OHV-Open	Maintenance: Signing - Directional	4.6
D1518	OHV-Open	Maintenance: Signing - Directional	0.6
D1519	OHV-Open	Maintenance: Signing - Directional	2.9
D1520	OHV-Open	Maintenance: Signing - Directional	0.4
D1521	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.6
D1522	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.2
D1548	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.2
D1549	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.5
D1609	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.7
D1611	OHV-Open	Mitigation: Signing - Regulatory	0.04
D1616	OHV-Open	Mitigation: Signing - Regulatory	0.8

Route Number	Designation	Monitoring and Mitigation	Miles
D1622a	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional; Other Management: Close route beyond stock pond	0.5
D1629	OHV-Open	Maintenance: Signing - Directional	0.6
D1630	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.9
D1636a	OHV-Open	Maintenance: Signing - Directional	0.5
D1637	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Interpretive	0.3
D1638	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Interpretive	0.1
D1645	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional; Mitigation: Signing - Interpretive; Mitigation: Fence adjacent sensitive resources; Monitoring: Route proliferation; Maintenance: Harden stream crossing; Maintenance: Erosion control	7.4
D1772	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.1
D1773	OHV-Open	Mitigation: Signing - Regulatory	0.2
D1783	OHV-Open	Maintenance: Signing - Directional	1.5
D1827	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Route proliferation	0.5
D1828	OHV-Open	Maintenance: Signing - Directional; Maintenance: Extend route to complete loop; Mitigation: Signing - Regulatory	0.2
D1850	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	3.7
D2394	OHV-Open	Mitigation: Signing - Regulatory; Maintenance: Signing - Directional	0.3
D2395	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.2
D2403	OHV-Open	Maintenance: Signing - Directional	0.4
D2421	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.2
D2499	OHV-Open	Maintenance: Signing - Directional	1.3
D2549	OHV-Open	Mitigation: Signing - Regulatory	0.05
D2554	OHV-Open	Mitigation: Signing - Regulatory	0.1
D2555	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	0.3
D2613	OHV-Open	Mitigation: Signing - Regulatory; Monitoring: Route proliferation	0.4
D2740	OHV-Open	Maintenance: Signing - Directional; Mitigation: Signing - Regulatory	1.8
D2743	OHV-Open	Maintenance: Signing - Directional	2.1
D4816a	OHV-Open	Maintenance: Signing - Directional	0.4
D5332	OHV-Open	Maintenance: Signing - Directional	0.5

Settlement Agreement Monitoring Requirements" section of Appendix L-B. of this guide for an excerpt of the monitoring report requirement language.

The BLM's WSA management manual (BLM 2012g) also provides guidance on travel management in WSAs. In its "Policies for Specific Activities" section it covers motorized and mechanized transport and trails guidance on pages 1-27 to 1-29: "Recreational use of motor vehicles or mechanical transport . . . may only be allowed when such use is consistent with all applicable laws and meets the non-impairment standard" (BLM 2012g).

LWCs

Travel management in LWCs should follow national guidance, which includes BLM manual 6310—Conducting Wilderness Characteristics Inventory on BLM Lands (Public) (BLM 2012e) and BLM manual 6320—Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process (Public) (BLM 2012f). Management should not be based on BLM Utah-

specific management LWC guidance tied to UT-IM-2016-027[5] as such guidance was rescinded in December 2018. The LWC inventory manual provides LWC context-based definitions for primitive routes and roads on pages 11 to 12. It also provides route analysis guidance in its Appendix C.

[5] The following documents should not be followed: BLM-UT Additional Guidance for Manual 6310 – Conducting Wilderness Inventory on BLM and BLM-UT Additional Guidance for Manual 6320 – Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process.

APPENDIX L-E. ROUTE-BY-ROUTE DETAILS

As timing and resources allow BLM will assign the following attributes for each route and track that information in the Ground Transportation Linear Feature dataset:

- Evaluation Route #
- FAMS #
- Primary Route Management Objective
- Functional Classification
- FAMS Asset Type
- Maintenance Intensity
- Indicator of route's inclusion in FAMS
- Indicator of route's FLTP eligibility
- Indicator of route's FLAP eligibility

APPENDIX L-F. SIGN PLAN BMPS

This section identifies and describes BMPs for signing routes on BLM land. It focuses on portal/entry signs and route marker signs for individual routes. Additional details for signs on BLM lands (installation, ordering, etc.) can be found in the BLM's 2016 National Sign Handbook (BLM 2016b) and the Federal Highway Administration's Manual on Uniform Traffic Control Devices, which is also known as the MUTCD (FHWA 2019).

Signing Objectives

The main objectives of this sign plan are to identify designated routes on the ground in a clear and consistent manner to eliminate or minimize off-network travel and other misuse of the TMA while reducing user conflict and resource impacts. To accomplish this, the BLM may create and distribute well-designed signs so that the public can understand the designated travel network and comply with its terms and regulations. Signs in the TMA should adhere to a consistent theme and will be consistent with all applicable laws, regulations, policies, and land use plans.

Specific objectives of this sign plan are to:

1. Address signing priorities and areas of special emphasis.
2. Provide an orientation to the types of signs, their design, and their uses in the TMA.
3. Address sign placement for current and proposed signs.
4. Outline basic protocols for the monitoring and maintenance of the sign system, including future signing needs.

General objectives for the BLM's use of signs in the TMA are to:

1. Identify public lands.
2. Promote the health and safety of visitors to the public lands.
3. Meet visitor needs for information and direction.
4. Ensure visitors are aware of route designations.
5. Use sign communication to:
    a. Inform the visitor of the natural and management features of the public lands and waters.
    b. Enhance visitor experiences.
    c. Reduce or mitigate user and management issues.
6. Uniformly promote public awareness of the BLM's multiple use mandate and stewardship responsibilities in managing the U.S. public lands and waters through consistent messages and signage.
7. Provide uniformity in the shapes, materials, messages, and appearance of BLM signs.

The BLM's 2016 National Sign Handbook (BLM 2016b) provides specific objectives pertaining to sign design:

> The BLM must use and place signs judiciously; use the established emblem or wordmark, where appropriate; use approved international symbols and established standards of the sign industry; comply with Uniform Federal Accessibility Standards (UFAS) guidelines; meet specifications established in the Manual on Uniform Traffic Control Devices (MUTCD) for vehicle and pedestrian traffic control signs; comply with federal, state, and local laws, as appropriate; and complement other media, such as maps, brochures, and webpages.

Sign Types and Design

Sign Types Overview

Under the final TMP, various types of signs and markers will be installed according to the current BLM policies and guidance for recreation and travel management signing. Signs appropriate to travel settings (i.e., Backcountry, Frontcountry, etc.) may be installed along roads, primitive roads, and trails. BLM travel management signs should use positive, clear, and simple messaging (BLM 2012a).

Signs are intended to guide, inform, and protect visitors. This section groups and defines the types of signs used on the BLM public lands and waters. Each of these categories has its own requirements and functions. Ideally, to avoid sign clutter, messages should not be mixed on a single sign or in a grouping of signs. The following categories of signs and may be installed in the TMA and include categories listed in the BLM's national sign handbook (BLM 2016b):

- Identification
- Guide (navigation)
- Informational
- Traffic control devices
- Regulatory/warning/safety
- Miscellaneous (temporary, special event, etc.)

Sign Design Overview

From large, informational portal signs to small, individual route markers, clear and accurate signing is crucial to provide all users of the travel network with the information they need to comply with route designations and meet TMP goals and objectives. New signage may incorporate elements from the design standards outlined in the most current version of the BLM's sign handbook (BLM 2016b) in addition to design specifications from the BLM sign shop. Any deviations from these standards must be approved by the BLM National Sign Coordinator.

Portal/Entry Signs

Large portal identification signs (see Figure L.2 - Figure L.4 below) may be installed at the beginning of popularly used areas, routes, or entrance points. Figure L.2 shows the current format of portal identification signs on BLM lands that are outside National Conservation Areas (NCAs). The BLM sign handbook (BLM 2016b) provides greater detail on formatting BLM signs.

Figure L.2: Portal/entry sign example

Figure L.3: Non-NCA BLM identification sign

The illustration at the top of the sign example above (taken from the latest BLM sign handbook) may be used for non-NCA BLM land identification signs in the TMA. According to the BLM sign handbook, this type of sign may require a waiver or approval if located within another agency's ROW. Within BLM ROWs, the BLM state engineer can make the determination on a case-by-case basis; otherwise signs should comply with the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD) standards. The handbook goes on to provide specifications for MUTCD-compliant identification signs.

Figure L.4: MUTCD-compliant BLM identification signs

Directional/Guide Sign Overview

Directional signs are essentially guide signs, which typically use arrows and distance indicators to provide guidance for the wayfinding process with roads and trails (BLM 2016b).

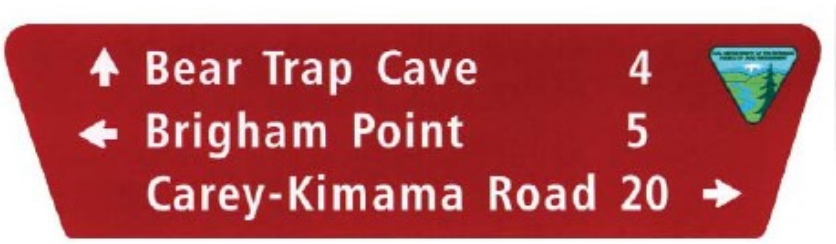

Figure L.5: Directional guide sign with guidance to multiple destinations

Figure L.6: Directional guide sign with guidance to one destination

Information Signs

Information signs may also be used throughout the TMA. See examples below.

Figure L.7: BLM information sign examples

Overview of Route Identification Marker Signing and Numbering Standards

Route markers are a specific type of guide sign. Most TMA signs may be route marker guide signs. Most primitive roads and trails may be identified by their number with flexible, brown fiberglass markers, generally referred to as fiberglass or Carsonite posts. Figure L.8 provides an

example of a layout for route markers. Most BLM route markers have white lettering on a brown background.

Figure L.8: Route marker examples

All numbers and decals should be placed within the top portion of the post that will not be driven into the ground. At a minimum, these signs should convey the managing agency and the numeric route identifier along with any other important symbols or graphics, such as those denoting what type of use is allowed or authorized.

Each route ID should come from a pre-assigned TMA -specific block of numbers, which utilize four-digit numbers with no commas, and that start with a particular number (e.g., 9000). If any route is already numbered outside this block, it may need to be re-numbered. Long distance routes, touring loops, or routes to specific destinations may have a route name or symbol in addition to a number (e.g., 9012 Bull Mountain Trail). Local input may be sought when naming loops and trails. The numbering system will be flexible, and numbers may not always be in numeric order. Note: routes that travel between field offices or planning areas may use the navigation number that was assigned to them in the jurisdiction or area that had the earliest designation date.

During the planning process, final navigational identifying numbers may be assigned for marking routes on the ground and in future published maps. However, throughout the travel management process, each travel route may have been assigned more than one identifying number. During the route evaluation phase of travel planning, a unique number is assigned that ensures that routes in GIS correspond to routes in a separate evaluation database. Sometimes existing route label numbers are changed to clarify segments into transportation assets (e.g.,

roads, primitive roads, and trails). These evaluation numbers are used in route reports (described in Appendix H of the EA). Finally, navigational identifying numbers are assigned as described above, and they become the official FAMS asset numbers as well. All versions of the travel network routes' various identifying number schemes may be maintained in a GIS database.

To limit the number of markers at an intersection, two routes may be identified on one post using arrow symbols and using both sides of the double-sided fiberglass posts. When adding a route name or where more than two international symbols are needed to convey a restriction or allowable use, the BLM may develop special decals which clearly state needed messages or trail names. If a volunteer group adopts a route, they may be allowed to develop a decal to place on the route's markers. On sign marker posts, trail names or trail adopters may be identified and labeled above route numbers. Not all route markers need to include a route name and numeric route identifier.

Where there is potential for a route to be traveled by motorized vehicles past its designated terminus, "Motorized Route Ends" signs or decals may be used. Routes that are open to administrative use only may be marked prominently with standard "closed" route signs (usually at the beginning of the route) and may be used in conjunction with route markers that display a standard "administrative use only" message.

Figure L.9: BLM route marker on the ground

Where designated OHV routes intersect with closed routes, "closed" route markers may be placed only where absolutely necessary for resource protection or public safety. When these closed routes are completely reclaimed either through natural re-vegetation or reclamation efforts, and the "closed" route markers are no longer necessary, the markers may be removed.

Implementation of signing should be completed in accordance with current BLM policy and guidance per the most current BLM sign handbook (BLM 2016b). Specifics for sign design, use,

and location are also determined by the BLM's manuals for roads (BLM 2015a) and primitive roads (BLM 2012d), the BLM's sign manual (BLM 2004), and the BLM's travel management handbook (BLM 2012a).

Markers for Travel Routes That Are Open and Limited

Markers for travel routes that are open or limited to OHV travel may follow the basic layout depicted in the signs in Figure L.9. Each marker post may contain the following elements:

- Arrow pointing in the direction of the route being marked
- Route identification number
- Symbols of allowed uses to which the route is open
- Symbols of prohibited uses to which the route is closed
- BLM logo

Markers may also have a decal with GPS coordinates marked at strategic locations.

Markers for Routes That Are Limited (Administrative) or Closed

Markers for travel routes where public motorized vehicle travel is allowed but limited (with various restrictions) may use signs formatted like the first sign in Figure L.10, below. Markers for travel routes that are decommissioned or closed to all forms of motorized vehicle travel may use signs similar to that at the right in Figure L.10. Where motorized vehicle travel is limited to administrative use, signs stating closure to OHVs may be used. Once a route has been decommissioned, and the route footprint has revegetated and blends in with the adjacent landscape, signs may be removed so as not to attract attention to the fact that a travel route once existed.

Figure L.10: Route Designation, Restriction, and Closure Signs

Additional Sign Examples

In addition to portal/entry signs, directional signs, general guide signs, designated route marker guide signs, and closure/limitation signs, the following signs may be used:

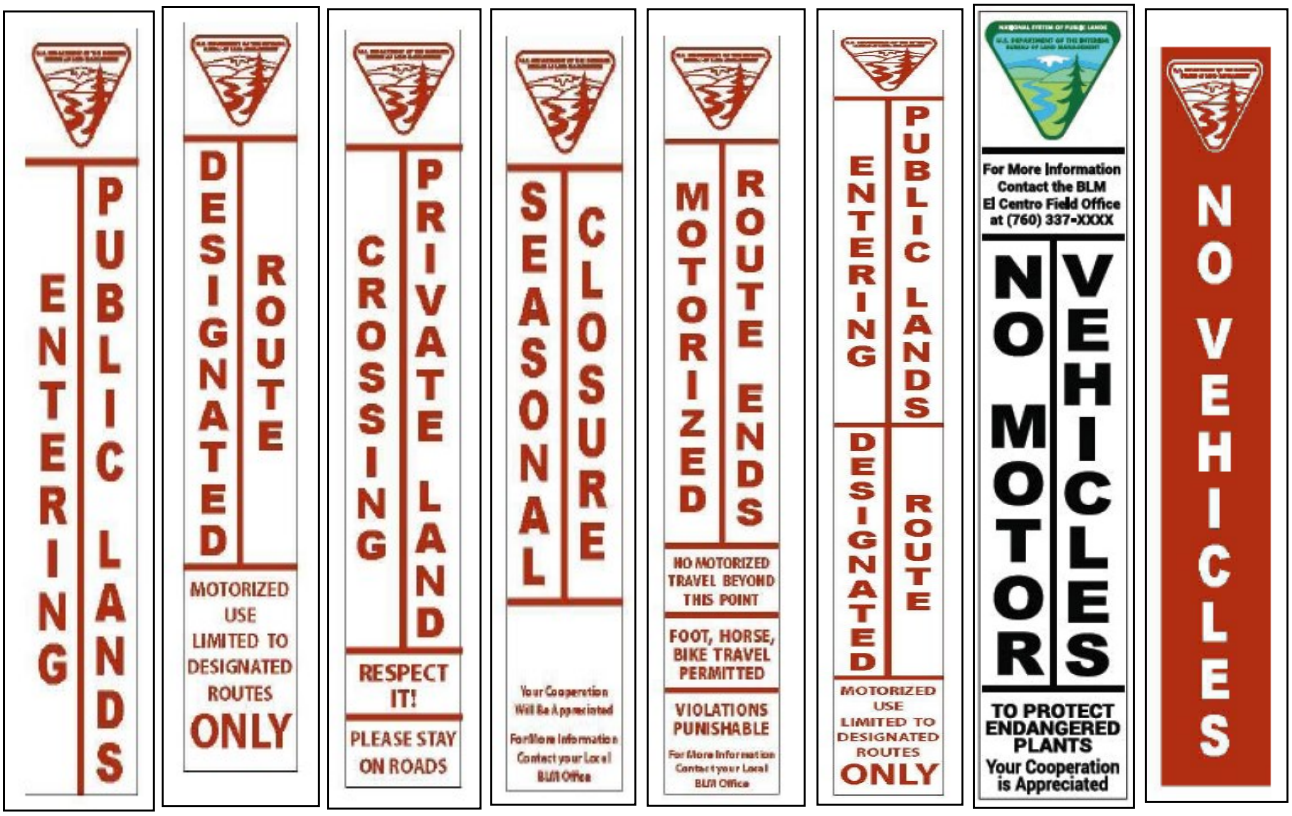

Figure L.11: Additional Travel Management Signs

Sign Placement

Priorities for Placing Signs

Priorities for the placement of signing are listed below in order of importance:

1. Public health and safety
2. Entrances to and boundaries of areas of national significance (e.g., national monuments, designated wilderness areas, etc.)
3. Special management areas (e.g., concentrated recreation sites, watchable wildlife sites, trails, backcountry byways, etc.)
4. Travel corridors receiving intensive use
5. Enhancement of visitor experience and convenience
6. Concentrations of major thoroughfares crossing large blocks of BLM-managed public lands

Priority should be given to the installation and maintenance of route markers (e.g., guide or navigation signs). The intention is to make the network of open and limited routes more obvious and attractive than the closed routes.

Sign Distribution

Signing should be kept to the minimum necessary for visitor management and assistance. Signing may also be used as a tool for resource protection and regulatory and informational purposes. Though signs may not be placed on every route in the travel network, most routes

designated as OHV-open or OHV-limited to motorized/mechanized travel may be marked with their navigation number or route identification number at their beginnings and at major intersections. Route markers may be placed periodically to confirm the identity of the route being traveled, serving as reassurance markers. Signing may also occur at other points where following a primitive road or trail might be difficult or confusing to visitors. At the intersection of two major connector routes, larger guide signs with destinations and mileages may be used. Other signs, such as identification signs, kiosks, and regulatory signs may be placed within the TMA as needed according to BLM management priorities.

Sign Monitoring and Maintenance

Monitoring/Maintenance Overview

Through monitoring and ongoing public input, strategies may be developed to constantly improve signing effectiveness. Maintenance procedures and schedules may be developed for signs and markers. Such procedures and schedules would include anticipated replacement needs. A sign inventory and database (see below) may also be created to facilitate tracking of sign locations and sign maintenance.

Signs may be removed or destroyed during the first few years following implementation. Sign replacement could involve utilizing different techniques to more securely ensure a sign's physical placement (e.g., using concrete instead of a stake). The messages some removed or destroyed signs conveyed may also be communicated through alternate means (e.g., public notices, increased BLM interaction with visitors, etc.).

Public message signs may be routinely evaluated to ensure that they are adequately meeting user needs and are consistent with BLM goals and policies. As kiosks typically require more maintenance than other signs, they may be monitored more frequently for evidence of damage and other problems.

The BLM may strive to monitor and maintain TMA signs. Signs may be updated, repaired, or replaced as soon as possible; signs that are found to be unnecessary may be removed. General sign maintenance should be conducted according to Chapter 8 of the BLM's sign handbook (BLM 2016b). Public land users will be encouraged to report missing or damaged signs, and volunteer efforts may be developed to help monitor and replace signs. Costs may be identified through the sign inventory database. For consistency, all future signing should conform to the design standards set forth in the BLM's sign handbook (BLM 2016b).

Sign Surveys and Inventories

A sign inventory (stored in a GIS database) should be developed and maintained. On a regular basis, the BLM should evaluate signs and other communication products (brochures, maps, etc.) for effectiveness (BLM 2016b).

A sign survey may be used to create a sign inventory. Current markers and signs may be inventoried upon TMP implementation. The sign survey used to create a GIS database of sign inventory details may include photos and information such as location, category, sign text, size and color, substrate material, and condition. An electronic GPS data dictionary and fillable electronic BLM sign survey form are available online. More details can be found on page 8 of the BLM's sign handbook (BLM 2016b).

Sign Effectiveness Planning and Review

The review of existing and proposed signs is essential to assess the need for and usefulness of each sign. Field staff involved with sign placement should have input during this review, helping to determine which signs are worthwhile, which signs should be eliminated, and which signs should be clarified. Field staff may also identify locations where signs are needed to resolve use problems, to improve stewardship ethics, or to accommodate public health and safety issues. Each sign should be planned and reviewed to fulfill the minimum review requirements of the BLM's sign handbook, including visibility, location, condition, etc. (BLM 2016b).

APPENDIX L-G. ROUTE MANAGEMENT MITIGATION ACTIONS FOR VARIOUS CONFLICT OR IMPACT SCENARIOS

Introduction

The following sections present examples of possible route management mitigation actions that could be considered to address potential route-related resource concerns. These actions were considered during the route evaluation and alternatives development process. Mitigating actions are listed under resource-conflict scenario descriptions in order of possible implementation from least restrictive to most restrictive. For additional examples of mitigation measures, consult "Appendix 5: TTM Challenges and Solutions for Recreation/Trail Management" in the BLM travel management handbook (BLM 2012a). It provides mitigation measures to address the following topics:

- Route density
- Access management
- Circulation improvement
- Parking improvement
- User conflict resolution
- Quality and diversity of trail experiences

Cultural Resources

See the Historic Properties Treatment Plan (HPTP) developed for the Canyon Rims TMA.

Riparian and Water Quality

Route Location Degrades Riparian Conditions

1. Relocate the route to avoid riparian areas.
2. Raise the route above water level if route is necessary, and it cannot be relocated. Remove compacted road fills and replace with permeable fills (such as corduroy) that allow riparian vegetation root systems to continue to function. If riparian crossing is unavoidable, choose nick points where crossing can occur with minimized impacts.
3. Close the route if no suitable mitigation is possible and perform reclamation.

Route-Associated Human Use Degrades Riparian Conditions

1. Place information and interpretive signs encouraging positive behavior (e.g., "Use only when dry," etc.).
2. Raise the route above water level or place barriers to keep vehicles and people on routes. Remove compacted road fills and replace with permeable fills (such as corduroy) that allow riparian vegetation root systems to continue to function. If riparian crossing is unavoidable, choose nick points where crossing can occur with minimized impacts.
3. Relocate the route to allow riparian condition to improve.
4. Close the route if no suitable mitigation is possible and perform reclamation.

Route-Associated Human Use Contributes to Water Quality Degradation and Excessive Erosion

1. Review the situation to determine source of degradation; monitor to determine severity.
2. Place water control measures on the route, such as lead-off ditches and rolling dips to drain the entire road surface.
3. Check and ensure adequate buffer strips are provided at drainage structures to avoid direct drainage into water bodies.
4. Tighten spacing between drainage structures based on soil types and route grade.
5. Take reasonable measures to further harden/stabilize the route.
6. Relocate the route or raise the grade if the route is incised.
7. Close the route if no suitable mitigation is possible.

Wildlife and Vegetation

Route-Associated Human Use Degrades a Wildlife Habitat

1. Educate route users through interpretive signs and other information facilities.
2. Place use limitations on the route (time/season of use, type of use, number of users).
3. Review management plans for species (including recovery plans for Endangered Species Act (ESA)-listed species) and follow recommendations.
4. Design mitigation plans to address:
    - Temporary conditions
    - Seasonal conditions
    - Year-round conditions
5. Develop specific mitigation measures based on the site if species management plans are insufficient.
6. Initiate consultation with the U.S. Fish and Wildlife Service (in the case of ESA-listed species).
7. Replace/enhance habitat to offset problems caused by human use; methods could be to:
    - Augment food/water sources.
    - Place barriers along the route to protect specific habitat features.
    - Relocate or expand reproduction sites to be away from the route.
8. Relocate the route.
9. Close route if no suitable mitigation is possible and perform appropriate reclamation. Regarding intrusions into wildlife habitat, a management decision from the 2008 RMP says, “Where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse impacts, the authorized officer shall close or restrict such areas. The public will be notified as to these closures and restrictions” (BLM 2008b).

Route-Associated Human Use Degrades Plant Communities

1. Place interpretive signs to encourage vehicles and people to stay on routes.
2. Conduct public outreach and education regarding noxious weeds and conserving vegetation.
3. Fence the area or place barriers to manage people.
4. Develop a program to improve desired plant communities.
5. Close the route and perform reclamation.

Route Use Contributes to Invasive Plant and Noxious Weed Spread

1. Educate the public about the spread of invasive weeds to prevent new infestations.
2. Encourage thorough cleaning of vehicles entering the area and include cleaning requirements for contractors or authorized users and permittees of the route.
3. Increase weed treatment along the route.
4. Require use of certified weed-free hay for horse users using the route.
5. Possibly limit the season of use on the route to prevent the spread of seeds if weeds are more likely to be spread during a particular season.
6. Limit the route to administrative use.

User Conflicts

Different Travel Speeds Cause Conflict Between Route Users

1. Place signs and information kiosks to raise awareness of need for considerate use of the area.
2. Monitor situation on the ground and request law enforcement support as necessary.
3. Conduct public outreach and education in an attempt change behavior.
4. Eliminate conflicts by separating uses or limit traffic by type or time of use.

Sound Levels Cause Conflict Between Recreationists and/or Local Residents

1. Place signs and information kiosks to raise awareness of sound issues.
2. Monitor situation on the ground and request law enforcement support as necessary.
3. Conduct public outreach and education in an attempt change behavior.
4. Implement “Quiet Time” use restrictions.
5. Reroute traffic to minimize conflict.
6. Place sound-reducing vegetative or constructed embankment barriers (if applicable).
7. Close route if no suitable mitigation is possible.

Administrative Use Attracts Unpermitted Use

1. Limit the amount or season of authorized use of the routes.
2. Add additional signing to the routes indicating they are limited to administrative vehicle use and public non-motorized use.
3. Fence and gate the routes at their intersections with open routes.

Vandalism and Other Resource Impacts

Route Use-Related Resource Vandalism of Range, Wildlife, or Other Facilities

1. Sign and provide informational materials to the visiting public about the protection of range and wildlife facilities.
2. Close the area around range and wildlife facilities to camping and recreational shooting.
3. Designate facility access routes as limited to administrative use.

Route Causes Unacceptable Recreation Settings Characteristic (RSC) Changes

1. Investigate the cause and implement signage and law enforcement as necessary.
2. Design mitigation plans to address:

- Short-term conditions
  - Implement new signing and public outreach to explain problem.
  - Implement temporary use restrictions (e.g., no overnight camping).
  - Issue emergency closure order and address conditions during closure.
- Long-term conditions
  - Implement signing and mapping protocols for the area.
  - If no suitable mitigation is possible, amend 2008 RMP to close the area.
  - Issue emergency closure order and address conditions during closure.

3. Close areas near the route contributing to unacceptable changes.

Proposed Route Exceeds a Visual Resource Management (VRM) Objective

1. Take appropriate action to make the proposed route less noticeable (e.g., landscaping) using the Visual Contrast Rating worksheet.
2. Realign or relocate the proposed route.
3. If no suitable mitigation is possible, construction of the proposed route should not be allowed.

APPENDIX L-H. RELEVANT CONSERVATION MEASURES

Surface-disturbing implementation activities will follow the BLM committed conservation measures included in the 2008 RMP (BLM 2008b), the 2016 Moab Master Leasing Plan (BLM 2016a), and the project-specific measures listed below. The ones listed here are the most applicable and appropriate measures for the implementation activities associated with this TMP.

Through consultation with the U.S. Fish and Wildlife Service, the following Conservation Measures have been developed and are found in chapter two of the TMP EA:

- If occupancy of ESA-listed species is confirmed, BLM will monitor all routes, including routes designated as closed, within occupied habitat to ensure compliance with the designation in the TMP. If monitoring indicates that disturbance or use is occurring outside the designated OHV open routes, BLM will implement appropriate corrective actions as identified in the 2008 RMP or developed in consultation with the U.S. Fish and Wildlife Service.
- Jones cycladenia and Navajo sedge potential suitable habitat: If surface-disturbing activities occur within 300 ft of potential suitable habitat for Jones cycladenia and Navajo sedge, the BLM will implement the committed conservation measures identified in the Moab Master Leasing Plan.
- Mexican Spotted Owl Habitats: In un-surveyed areas or areas that have not had protocol surveys since 2015, suitable and potentially suitable habitats will be surveyed according to U. S. Fish and Wildlife Service protocol in 2021 and 2022.