June 2025

Draft Authorization of Class 1 E-bikes on Designated Mountain Bike Trails

Environmental Assessment

DOI-BLM-UT-Y010-2024-0051-EA

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TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION

1.1. Background

The Bureau of Land Management (BLM) Moab Field Office (MFO) proposes to authorize class 1 electric bicycles (e-bikes) on 211.2 miles of designated mountain bike trails and trail systems (identified trails) on BLM-managed lands within the MFO, located in Grand and San Juan Counties, Utah. The MFO would manage class 1 e-bikes in line with non-motorized, traditional mountain bikes. Below shows the mountain bike trails and trail systems identified for the proposed authorization of class 1 e-bikes:[1]:

- Athena Mountain Bike Trail
- Horsethief Mountain Bike Trail System
- Navajo Rocks Mountain Bike Trail System
- Gemini Bridges Area Mountain Bike Trail System
- 7-Up Mountain Bike Trail
- Gold Bar Rim Mountain Bike Trail
- Portal Mountain Bike Trail
- Klondike Bluffs Mountain Bike Trail System
- Baby Steps Mountain Bike TrailTrail
- Klonzo Mountain Bike Trail System
- Moab Brands Mountain Bike Trail System
- Amasa Back Mountain Bike Trail System
- Jackson Mountain Bike Trail
- Hunter Canyon Rim Mountain Bike Trail
- Pipe Dream Mountain Bike Trail
- Raptor Route Mountain Bike Trails: Hawks Glide, Falcon Flow, Kestrel Run
- Kokopelli Mountain Bike Trail – 1.7 mile of non-motorized singletrack trail

The 1.8-million-acre MFO is a popular mountain bike recreation destination both for residents and visitors. Currently, the MFO manages 230 miles of designated mountain bike trails within 12 mountain bike trail systems to the north, west, and east of the city of Moab. There are currently only 1.4 miles of mountain bike trail open to class 1 e-bikes in the MFO as part of the Lower Monitor and Merrimac Bike Trail loop in the Mill Canyon Area north of Moab. An additional 9.8 miles of mountain bike trail will be open to class 1 e-bikes once construction of the Mud Springs Mountain Bike Trail System, is completed in the fall of 2025 (DOI-BLM-UT-Y010-2023-0045-EA). E-bikes are also authorized on routes designated for motorized use, including the Slickrock National Recreation Trail.

[1] *Fisher Mesa, Lower Porcupine Rim Singletrack and Eagle Eye portion of the Raptor Route would not be assessed due to portions of the trails being within National Forest System (NFS) Lands. Porcupine Rim Singletrack Trail and Hidden Valley would not be assessed as they are within a Wilderness Study Area.*

The Intrepid Trail System at Dead Horse Point State Park, approximately 32 miles northwest of Moab, within the MFO planning area, authorizes e-bikes on the 16.6 miles of singletrack trail.

In April 2022, the BLM Grand Junction Field Office authorized the use of class 1 e-bikes on 29 miles of trails within the North Fruita Desert SRMA (DOI-BLM-CO-G010-2021-0016-EA), which is approximately 105 miles northeast of Moab.

The popularity of e-bike use as a means of transportation and recreation is growing rapidly in the United States and around the world. An e-bike is a bicycle with operable pedals and a small electric motor of no more than 750 watts (one horsepower) which assists in the operation of the bicycle and reduces the physical exertion demands on the rider. Typically, an e-bike weighs about 38-70 pounds, depending on the type, battery and motor sizes, and materials used. A typical traditional mountain bike weighs between 25 and 35 pounds.

There are two main types of e-bikes: pedal-assisted and throttle-assisted. A rider must actively pedal a pedal-assisted bicycle to engage the electric motor, whereas a rider uses a handlebar-mounted throttle to engage the electric motor of a throttle-assisted bicycle.

The Federal Highway Administration (FHWA) e-bike definition and three tier classification is codified at 23 U.S. Code § 217(j)(2), which is considered the industry standard and has been adopted by other federal agencies, including the BLM, and over 39 States.

The BLM definition of e-bikes found at 43 CFR § 8340.0-5(j) is:

> (j) Electric bicycle (also known as an e-bike) means a two- or three-wheeled cycle with fully operable pedals and an electric motor of not more than 750 watts (1 horsepower) that meets the requirements of one of the following three classes:
>
> > (1) Class 1 electric bicycle shall mean an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour (mph).
> >
> > (2) Class 2 electric bicycle shall mean an electric bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 mph.
> >
> > (3) Class 3 electric bicycle shall mean an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 mph.

BLM E-Bike Policy. In 2019, the Department of the Interior (DOI) issued new guidance regarding the management of e-bikes on DOI administered public lands. On August 29, 2019, the Secretary of the Interior issued Secretary's Order (SO) 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. SO 3376 directed the BLM and all other DOI agencies to expand access on public lands to e-bike users and amend existing regulations to address e-bikes. SO 3376 specifically directed the BLM to revise its off-road vehicle or off-highway vehicle (OHV) regulations at 43 CFR part 8340.

A BLM final e-bike rule was published in the Federal Register on November 2, 2020. The rule amends 43 CFR 8340.0-5 to define e-bikes, which are limited to class 1, 2, and 3 e-bikes as defined above. This guidance can be found on BLM's national e-bike webpage, https://www.blm.gov/programs/recreation/e-bikes. The revised regulation provides that authorized officers may authorize, through subsequent land-use planning or implementation-level decisions, the use of class 1 e-bikes on trails open to traditional mountain bikes. While the BLM intends for the rule to increase access and recreational opportunities on public lands, e-bikes would not be given special access beyond what traditional, non-motorized bikes are allowed.

Research and guidelines on the use and management of e-bikes on trails is continually expanding. In November 2022, the FHWA published *The Future of E-bikes on Public Lands: How to Effectively Manage a Growing Trend.* This report, funded by FHWA, is the first national-scale effort to develop a comprehensive framework for the opportunities and challenges related to e-bike use on public lands and focuses on four research areas: (1) Ecological, Cultural, and Historical Resources; (2) Safety factors; (3) Social factors; and (4) Processes for E-Bike Management. The FHWA is continuing initiatives and research relevant to understanding e-bikes, including case studies, with more information available at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/resources/e-bikes/.

1.2. Purpose and Need

The purpose of the Proposed Action is to expand recreational opportunities and experiences for class 1 e-bike users within the MFO.

The need for the action is established by the BLM's responsibility under the Federal Land Policy and Management Act of 1976 (FLPMA), which establishes the BLM's responsibility to provide outdoor recreation opportunities on public lands.

1.3. Decision to be Made

The decision to be made by the BLM is whether or not to authorize class 1 e-bikes on the identified trails and trail systems within the MFO.

The MFO Authorized Officer may decide to select an individual alternative, or a combination of alternatives comprised of analyzed components.

1.4. Conformance with the Land Use Plan

The Proposed Action and alternatives are in conformance with the following Land Use Plan (LUP):

Moab Field Office Record of Decision and Approved Resource Management Plan, as amended (2008 RMP)

Date Approved: October 2008

The Proposed Action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decision(s):

Recreation (REC):

REC-5 Recreational 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 (p. 81).

Travel (TRV):

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 (p. 128).

TRV-15 Manage approximately 11.2 miles of routes on the following trails for non-motorized use only: Jackson Trail, "Baby Steps," Hunter Canyon Rim, Portal Trail, Hidden Valley, and Porcupine Rim single-track section (Hidden Valley and Porcupine Rim Trails are subject to IMP) (p. 128).

1.5. Relationship to Statutes and Regulations

The following laws, regulations, policies, and orders are directly related to the Proposed Action and alternatives:

- SO 3376, Increasing Recreational Opportunities through the use of Electric Bikes, 2019 – increases opportunities for e-bike users, especially those with physical limitations, by simplifying and unifying regulation of e-bikes on Federal lands managed by the Department of the Interior.
- 43 CFR § 8340.0-5(a)(5) – allows an authorized officer to exclude e-bikes from the definition of an off-road vehicle when determined through a land-use planning or implementation level decision and when they are used on roads and trails upon which mechanized, non-motorized use is allowed, and when a motor is not exclusively propelling the e-bike for an extended period of time.
- FLMPA: Section 102 (8) requires that public lands be managed in a manner that will protect the quality of various resource values; and that will preserve and protect certain public lands in their natural condition, and that will provide for outdoor recreation and human occupancy use.

1.6. Scoping and Issues

The project proposal was presented to the MFO Interdisciplinary Team (IDT) on March 4, 2024 to initiate internal scoping. The project was listed on the BLM National NEPA Register on

October 1, 2024. A public scoping period occurred from October 1, 2024, to November 1, 2024. On October 11, 2024 the public scoping period was extended to November 9, 2024.

The following issues were identified through internal and external scoping as requiring further analysis in the Environmental Assessment (EA). Issues that were considered but not analyzed in detail are provided in Appendix A.

- **Issue 1**: How would the proposed authorization of class 1 e-bikes on the identified mountain bike trails affect recreation setting characteristics and recreation opportunities in the MFO?
- **Issue 2**: How would the proposed authorization of class 1 e-bikes on the identified mountain bike trails affect socioeconomic resources in the MFO?

CHAPTER 2. ALTERNATIVES

This chapter describes the alternatives that will be analyzed in Chapter 3.

2.1. Alternative A – No Action Alternative

Under the No Action Alternative, the BLM would not authorize class 1 e-bikes on any of the identified mountain bike trails within the MFO. The following mountain bike trails and trail systems would remain open only to traditional mountain bikes without electric power assistance and all other non-motorized uses: Athena Trail, Horsethief Trail System, Navajo Rocks Mountain Bike Trail System, Gemini Bridges Area Trail System, 7-Up Trail, Gold Bar Rim Trail, Portal Trail, Klondike Bluffs Mountain Bike Trail System, Baby Steps Trail, Klonzo Trail System, Moab Brands Mountain Bike Trail System, Amasa Back Mountain Bike Trail System, Jackson Trail, Hunter Canyon Rim, Pipe Dream Trail, Raptor Route Trails: Hawks Glide, Falcon Flow, Kestrel Run, and the 1.7 miles of non-motorized singletrack on the Kokopelli Trail. Class 1 e-bikes would continue to be authorized on the 1.4 miles of mountain bike trail in the MFO. E-bikes would continue to be authorized under the Rehabilitation Act of 1973 for people with disabilities.

2.2. Alternative B – Proposed Action (Experience Outcome Focused)

Under the Proposed Action, the BLM would authorize class 1 e-bikes on 114 miles of identified mountain bike trails within the MFO, using a two-phase approach (see Table 1 below). These trails and trail systems would provide a spectrum of experience outcomes for recreationists. Some mountain bike trails and trail systems would remain closed to e-bikes to preserve traditional mountain bike only experiences.

Trail difficulty level ratings would be used to provide the following experience outcomes:

- Enjoying time in an outdoor setting alone or with family and friends – trails rated as easy or less difficult
- Development of skills and abilities – trails rated as easy to intermediate
- Enjoying a challenge and testing skills – trails rated as advanced or more difficult

Authorization of class 1 e-bikes using a two-phase approach would allow for monitoring and mitigation of the concerns expressed during both internal and external scoping. These concerns include:

- **Safety** -- The potential higher speeds of e-bikes and increased use raise safety and user conflict concerns, including the need for emergency services.
- **User Conflicts** -- E-bikes may modify the general flow of mountain bike trails because of potential higher speeds than traditional bikes on uphill sections of trail, potentially creating user conflicts.
- **Trail Damage** -- The addition of e-bikes to mountain bike trails and trail systems may contribute to potential enhanced rates of trail damage or erosion.
- **Resource Impacts** – Addition of e-bikes may contribute to a potential increase in off trail impacts to vegetation and biological soil crusts from higher speeds and need for passing along trail sections.
- **Lack of Research** -- Research on e-bike use does not exist for the desert environment and there is a lack of understanding of how use may affect Moab's world class trails and how to mitigate potential impacts.
- **Enforcement** -- Enforcement is necessary for classes of e-bikes and motorized electric motorcycles that are not authorized on mountain bike trails.

Table 1: Alternative B – Proposed Action Trails and Trail Systems

Trail/Trail System	Proposed Class 1 E-bike Status	Phased Initiation of E-bike Authorization	Experience Outcome and Other Considerations
Athena Trail	Authorized	Phase 1: First year with monitoring.	Enjoying time with family and friends in an outdoor setting – trails rated as easy or less difficult; close to Interstate 70 and the city of Green River, Utah.
Moab Brands Trail System	Authorized	Phase 1: First year – with monitoring.	Enjoying time with family and friends in an outdoor setting – trails rated as easy or less difficult, development of skills and abilities – trails rated as intermediate; connectivity to Utah Raptor State Park; close to the city of Moab with connectivity to Moab Canyon paved bike path.
Kokopelli Trail -- 1.7 miles of non-motorized singletrack trail	Authorized	Phase 1: First year – with monitoring.	Provide connectivity along the long distance Kokopelli mountain bike trail.
Klondike Bluffs Trail System including Baby Steps Trail	Authorized	Phase 2: Second year with mitigations based upon monitoring from first year trails.	Enjoying time with family and friends in an outdoor setting – trails rated as easy or less difficult, development of skills and abilities – trails rated as intermediate; connectivity to Utah state lands through Sovereign trail.

Trail/Trail System	Proposed Class 1 E-bike Status	Phased Initiation of E-bike Authorization	Experience Outcome and Other Considerations
Klonzo Trail System	Authorized	Phase 2: Second year with mitigations based upon monitoring from first year trails.	Enjoying time with family and friends in an outdoor setting – trails rated as easy or less difficult, development of skills and abilities – trails rated as intermediate; connectivity to Utah Raptor State Park.
Amasa Back Trail System including Pothole and Rock Stacker Trails and **excluding** Jackson Trail	Authorized	Phase 2: Second year with mitigations based upon monitoring from first year trails.	Enjoying a challenge and testing skills – trails rated as advanced or more difficult, climb and descent trail flow; e-bikes would not authorized on Jackson Trail due to approach through creek bottom.
Pipe Dream Trail	Authorized	Phase 2: Second year with mitigations based upon monitoring from first year trails.	Development of skills and abilities – trails rated as intermediate, within the city of Moab with connectivity to streets.
Horsethief Trail System	Not Authorized	NA	Development of skills and abilities – trails rated as intermediate, allowing for experiences with no e-bikes.
Navajo Rocks Trail System	Not Authorized	NA	Development of skills and abilities – trails rated as intermediate allowing for experiences with no e-bikes.
Magnificent 7, 7-Up, Getaway and other mountain bike trails in the Gemini Bridges area including Gold Bar Rim and Portal Trails	Not Authorized	NA	Development of skills and abilities – trails rated as intermediate, allowing for experiences with no e-bikes. Enjoying a challenge and testing skills – trails rated as advanced or more difficult, allowing for experiences with no e-bikes.
Hunter Canyon Rim	Not Authorized	NA	Steep cliffs requiring lifting bikes above the head is not compatible with e-bikes due to their weight (see Section 1.1).
Raptor Route Trail System – Sand Flats Recreation Area	Not Authorized	NA	Development of skills and abilities – trails rated as intermediate, allowing for experiences with no e-bikes. Enjoying a challenge and testing skills – trails rated as advanced or more difficult allowing for experiences with no e-bikes.

2.2.1. Design Features

2.2.1.1. *Implementation Strategy*

Phase 1 -- During Phase 1, class 1 e-bikes would be authorized on the Athena Trail System, Moab Brands Trails System, and a 1.7 mile portion of singletrack trail along the Kokopelli Trail. Phase 1 would last for one year from implementation during which monitoring would occur following the monitoring plan (see Section 2.2.1.2).

Phase 2 -- During Phase 2, class 1 e-bikes would be authorized on the Klondike Bluffs (including the Baby Steps Trail), Klonzo, Amasa Back (including Pothole and Rock Stacker Trails and excluding Jackson Trail) Trail Systems, and the Pipe Dream Trail. Observations from Phase 1 monitoring would be used to implement mitigation measures as necessary including education, trail design, and infrastructure measures.

Education -- Consistent with all existing trails and trail systems, information on authorized uses, trail etiquette, and safety would be provided at trailheads. For trail systems where class 1 e-bikes would be authorized, information at trailheads would include e-bike specific information. This would include information on e-bike classification. For trailheads where e-bikes would not be authorized, information on e-bike classification and where they are authorized would be provided. This information would also be available through BLM website pages, the Grand County Moab Office of Tourism website, shared with local businesses including rental bike and shuttle companies, and shared with other online sources such as Trail Forks.

Trail Design and Infrastructure – The BLM would work with Grand County Active Transportation and Trails Department (GCATT) to assess trail design modifications that may be necessary for the addition of class 1 e-bike use. Design features may include one-way directional travel, trail lining and barriers, hardening of trail features, strategic signs, and other considerations observed through monitoring and found in guidance such as *Managing Mountain Biking: IMBA's Guide to Providing Great Riding* (IMBA 2017) and *Guidelines for a Quality Trail Experience* (BLM/IMBA 2017).

Monitoring – Monitoring would be conducted for three primary concerns: public safety, visitor experience, and trail/resource impacts (Section 2.2). Adaptive management, as described in Section 2.2.1.2, would be used to identify potential future monitoring needs and mitigation measures. It is expected that concentrating e-bike use onto two trail systems during Phase 1 would increase use, resulting in impacts related to these concerns. The desired outcome is to identify these impacts and apply mitigation measures that can be carried into the subsequent phase.

2.2.1.2. *Monitoring Plan – Public Safety:*

The BLM would conduct monitoring in coordination with GCATT, Grand County Search and Rescue (GCSAR) and Grand County EMS (GCEMS). Monitoring would utilize reports and statistics acquired from GCSAR and GCEMS. Additionally, the BLM and GCATT would review voluntarily submitted user feedback. Information on how to submit feedback (e.g. email, phone, etc.) would be provided at trailheads.

Results of Monitoring -- If the BLM were to confirm that an objective to protect human health and safety by limiting exposure to unsafe human-created conditions (defined by a repeat incident in the same year, of the same type, in the same or similar location, due to the same cause) is not being achieved, then the BLM would implement one or more of the following actions until documented safety incidents are resolved:

- Education and Outreach – trailhead signage, trail ambassadors, websites, social media.

- Trail Design and Infrastructure -- conduct further environmental analysis if applicable in order to amend trail design such as re-routing or other mitigating design features.

- Directional Travel – amend trails for one way travel only.

If incidents continue to occur and can, with certainty, be attributed to e-bike use, authorization of class 1 e-bikes would not be implemented in a subsequent phase and an assessment of continued authorization of class 1 e-bikes would be conducted.

2.2.1.3. *Monitoring Plan -- User Experience*

The BLM would conduct the monitoring efforts in coordination with GCATT. Trail users would be provided information at the trailhead on how to submit feedback regarding their experience (e.g. email, phone).

If monitoring were to indicate that class 1 e-bikes were detracting from the quality of visitor experiences indicated by:

1) Observations of and/or reports of out of compliance use of e-bikes other than class 1 (i.e., class 2 or 3, Surrons, etc.),

2) Observations of and/or reports of e-bikes travelling against the directional travel of trails,

3) Observations of and/or reports of new off trail impacts attributed to the need for passing from e-bikes travelling at faster speeds,

then the BLM would implement an adaptive management approach using the actions identified below.

Education and Outreach: The BLM and GCATT would emphasize trail etiquette including information on authorized bikes on each trail or trail system and best practices for passing at trailhead signs, through trail ambassadors, on websites, and social media.

Trail Design and Infrastructure: The BLM and GCATT would enhance trail signs to indicate direction of travel and design wider sections of trail and specific pull-outs for passing.

Enforcement: The BLM would enhance law enforcement effort to address occurrences of electric or gas-powered motorcycles.

If after pursuing mitigation measures, non-compliance incidents continue with impacts to visitor experiences that can, with certainty, be attributed to e-bikes, authorization of class 1 e-bikes would not be implemented in a subsequent phase and an assessment of continued authorization of class 1 e-bikes would be conducted.

2.2.1.4. *Monitoring Plan -- Trail and Soil Impacts*

Monitoring would include baseline data collection through helmet camera, aerial imagery, and photo points. Repeat photo points at areas of concern would be conducted annually, at a minimum. Monitoring would be completed by the BLM in coordination with GCATT.

If monitoring were to indicate that the use of e-bikes was causing impacts to trails and adjacent soils and vegetation indicated by:

1) Observations of degraded trail sections compared to a baseline collected through initial monitoring methods,

2) Observations of off trail travel impacts such as cutting of trail sections, new user created informal trails, or other signs of off trail travel,

then the BLM would implement an adaptive management approach using the actions identified below until management desired outcomes are achieved.

Education and Outreach: The BLM and GCATT would emphasize staying on designated trails at trailhead signs, through trail ambassadors, on websites, and social media.

Trail Design and Infrastructure: The BLM and GCATT would utilize trail design features to mitigate or minimize locations of trail damage including directional travel if necessary and place deterrent features at locations of common off trail travel.

If after pursuing mitigating options and trail and soil impacts continue that can, with certainty, be attributed to e-bike use, authorization of class 1 e-bikes would not be implemented in a subsequent phase and an assessment of continued authorization of class 1 e-bikes would be conducted.

2.3. Alternative C -- Class 1 E-Bikes Authorized on All Identified Trails

Under Alternative C, the BLM would authorize class 1 e-bikes on all 211.2 miles of identified mountain bike trails within the MFO. Class 1 e-bikes would be authorized on the following trails and trail systems: Athena Trail, Horsethief Trail System, Navajo Rocks Mountain Bike Trail System, Gemini Bridges Area Trail System, 7-Up Trail, Gold Bar Rim Trail, Portal Trail, Klondike Bluffs Mountain Bike Trail System, Baby Steps Trail, Klonzo Trail System, Moab Brands Mountain Bike Trail System, Amasa Back Mountain Bike Trail System, Jackson Trail, Hunter Canyon Rim, Pipe Dream Trail, Raptor Route Trails: Hawks Glide, Falcon Flow, Kestrel Run, and the 1.7 miles of non-motorized singletrack on the Kokopelli Trail.

Under Alternative C, the BLM would follow the monitoring plan described below in Section 2.3.1. Mitigation measure based on monitoring would occur for at minimum the first two years to address concerns raised during the scoping period (Section 2.2).

2.3.1 Design Features

2.3.1.1 *Implementation Strategy*

Alternative C would follow the same implementation strategy as proposed in the Proposed Action (Section 2.2.1.1) excluding the two phases. Class 1 e-bikes would be authorized on all identified trails at the same time and monitoring would be conducted for, at minimum, the initial two years. Adaptive management would be used to identify potential future monitoring needs and mitigation measures.

2.3.1.1. *Monitoring Plan* --

Monitoring would be conducted for the same three primary concerns and following the same monitoring plan as the Proposed Action (Sections 2.2.1.2 to 2.2.1.4). If after pursuing mitigating options impacts continue that can, with certainty, be attributed to e-bike use, further environmental analysis of continued authorization of class 1 e-bikes would be conducted.

2.4. Alternatives Considered but Eliminated from Detailed Analysis

The following alternatives were considered but eliminated from detailed analysis:

An alternative of authorizing e-bikes on all 230 miles of designated mountain bike trails within the MFO considered but eliminated from detail analysis because of connectivity of BLM-managed trails to the United States Department of Agriculture, Forest Service (USDA, Forest Service) lands. The Fisher Mesa Trail, Lower Porcupine Singletrack Trail, and Eagle Eye Trail portion of the Raptor Route cross from BLM-managed lands onto National Forest System Lands (NFS Lands). The USDA Forest Service Manti-La Sal National Forest does not currently authorize e-bikes on non-motorized mountain bike trails.

This alternative was also eliminated because the Porcupine Rim Singletrack Trail and Hidden Valley Trails are within Wilderness Study Areas (WSA). BLM policy in BLM Manual 6330, *Management of BLM Wilderness Study Areas* does not allow for the establishment of new discretionary uses in WSAs that would impair the suitability of WSAs for wilderness designation. Mechanized and motorized travel are prohibited uses in designated wilderness under the Wilderness Act of 1964. Authorization of e-bikes on mountain bike trails is a discretionary decision that would further raise the expectation of continued use of mountain bikes within WSAs, thereby impairing the suitability of the WSA for designation as wilderness.

An additional alternative was raised during the public scoping period of only authorizing e-bikes on newly developed trails, specifically designed and built for e-bike users desired recreation experience and outcomes: e.g., singletrack trails without motorized vehicles. With the 2008 RMP, the MFO identified mountain bike focus areas and trail systems based on recreation setting characteristics (RSCs) and specific management objectives for non-motorized/non-mechanized recreation activities. To date, all but one mountain bike trail system identified in the 2008 RMP has been constructed. It would be difficult for the BLM to create new e-bike specific trails or trail systems extensive enough to accommodate the growing demand for e-bikes (see Section 3.2.1). Therefore, this alternative was eliminated from detailed analysis.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

This chapter defines the scope of analysis contained in this EA, describes the existing conditions relevant to the issues presented in Section 1.6, and discloses the potential impacts of the Proposed Action and alternatives.

3.1. Reasonably Foreseeable Future Actions

Based on ongoing BLM visitation monitoring, regional population growth, and demand for outdoor recreation opportunities, it is reasonably foreseeable that recreational visitor use, including use of e-bikes, would continue to increase within the entire MFO, including the

SRMAs listed in Section 3.2.1. With an anticipated market compound annual growth rate (CAGR) in the United States of over 15 percent by 2030 for e-bikes designed specifically for mountain biking (eMTBs), it is reasonably foreseeable to anticipate a continued and growing demand for e-bike recreational opportunities (Modor Intelligence 2025).

In 2023, the BLM completed the Mud Springs Trail System EA (DOI-BLM-UT-Y010-2023-0045-EA), which authorized both the construction of the trail system and the use of class 1 e-bikes on the 9.8-mile trail system. Construction will be completed in the fall of 2025, and is therefore reasonably foreseeable to expect an additional 9.8-miles of singletrack trail will be available to class 1 e-bikes.

3.2. Issue 1: How would the proposed authorization of class 1 e-bikes on the identified mountain bike trails affect recreation setting characteristics and recreation opportunities in the MFO?

3.2.1. Methodology and Assumptions

The Proposed Action and alternatives are focused within the Labyrinth Rims/Gemini Bridges, Colorado Riverway, South Moab, Sand Flats, and Two Rivers SRMAs. However, the Proposed Action and alternatives would affect recreation opportunities throughout the entire MFO by providing additional recreation opportunities for class 1 e-bikes.

Outdoor recreation in the MFO is highly valued as a destination for regional, national, and international tourists and as a quality-of-life amenity for residents. According to BLM traffic and trail counters, the MFO received an estimated three million visitors in 2024. Of this total, the BLM estimates that the affected SRMAs account for approximately 2,603,000 visits. This is a 23 percent increase in visitation from 2015, an average annual growth rate of 4 percent. Both individuals and communities' benefit from recreational opportunities on public lands. Individual benefits include improved physical and mental health and stronger ties with family and friends. Community benefits include a more diversified economy and enhancing the area as a place to recreate, work, and live.

Comments provided from the public during the scoping period (see Scoping Report on ePlanning) and increased recreation use trends (Section 3.1) indicate public interest in the management of e-bikes within the MFO. The use of e-bikes has grown within the last decade to include e-bikes designed for mountain biking. The e-bike industry began designing e-bikes modeled after traditional mountain bikes that include front and rear suspension for rough trails. Market analyses indicate the worldwide eMTB market is estimated at over 6 billion dollars and is expected to reach over 11 billion dollars by 2030 for a CAGR of 12.5 percent. The U.S. eMTB market is estimated at just over one billion dollars and is estimated to grow at a CAGR of over 15 percent by 2030 (Modor Intelligence 2025). Consequently, the BLM has updated regulations defining e-bikes (Section 1.1) and is continuing to adapt management strategies nationally to account for the increasing popularity of eMTBs.

For the purpose of this analysis, the BLM uses an outcomes-focused recreation management strategy, which identifies and manages landscape and recreation settings to provide specific recreation opportunities and beneficial outcomes.

Recreation Opportunities. Recreation opportunities are defined as the ability to participate in recreation activities that facilitate experiences and benefits within a specific geographic area. Visitors to BLM-managed lands seek a diverse range of setting-dependent outdoor recreation opportunities. They choose to recreate in different areas based on the qualities and conditions (i.e. recreation setting characteristics) of the area and because they desire to have distinctive recreation outcomes (i.e., experiences and benefits) (BLM 2014).

Recreation Outcomes. The BLM has established outcomes-focused management objectives for the recreational activities, experiences, and benefits within each SRMA. For example, an activity objective may be rock climbing with an experience objective of enjoying risk taking and adventures and a benefit objective of improved skills for outdoor adventure. The outcomes-focused objectives for each SRMA within the MFO can be found in Appendix M of the 2008 RMP.

Recreation Setting Characteristics. The visitor's achievement of recreational experiences and benefits is highly dependent on the recreation setting characteristics (RSCs) that support those outcomes. RSCs further describe the physical, social, and operational components of the recreation setting. **Physical qualities** are defined by remoteness, naturalness, and facilities. **Social qualities** are defined by contacts with other groups, group size, and evidence of use. **Operational components** to manage recreation use are defined by type of public access, visitor services and management controls (e.g., trailheads and trail design) (BLM 2014).

Desired RSCs and recreation outcomes specific to mountain biking for the various SRMAs include:

Labyrinth Rims/Gemini Bridges SRMA (2008 RMP Appendix M, p. M-4):

- Maintain the scenic character of the SRMA to allow visitors to enjoy unconfined experiences. Provide information and management presence sufficient to protect these scenic values.
- Provide opportunities for quality on-route mountain biking experiences on established routes throughout the SRMA.
- Experiences: enjoying exploring, developing skills and abilities.
- Benefits: restored mind from unwanted stress, improve skills for outdoor enjoyment.

Colorado Riverway SRMA (2008 RMP Appendix M, p. M-3):

- Maintain the scenic character and important vistas of the Colorado Riverway to allow visitors to enjoy the unsurpassed visual resources.
- Provide information and a regular and continuous management presence to allow the large numbers of visitors to enjoy the area while protecting its natural resources.
- Experience: Enjoying physical activity in a scenic setting.
- Benefit: Greater sense of adventure, improved economy.

South Moab SRMA (2008 RMP Appendix M, p. M-6):

- Maintain the mainly front country character to allow visitors to enjoy recreation activities.
- Experiences: Enjoying strenuous physical exercise; experiencing a greater sense of independence
- Benefits: Improved physical capacity to do recreation activities.

Sand Flats SRMA (2008 RMP Appendix M, p. M-6):

- Provide unique mountain biking experiences including the Slickrock Trail.
- Maintain the scenic character of Sand Flats to allow visitors to enjoy an outdoor adventure experience.
- Provide information and a high degree of management presence to protect the scenic values and to allow for a large number of visitors.
- Experiences: Enjoying a physical challenge.
- Benefits: improved skills for outdoor enjoyment and physical activity, increased local tourism revenue.

Two Rivers SRMA (2008 RMP Appendix M, p. M-7):

- Maintain the scenic character of the Two Rivers SRMA to allow visitors to enjoy a backcountry experience. Provide information and a management presence sufficient to protect this type of experience.
- Experiences: Enjoying an escape from crowds of people.
- Benefits: Restored mind from unwanted stress.

For this analysis, RSCs and recreation outcomes serve as a framework to describe the existing recreation setting and the changes in the recreation settings and recreation opportunities created by the Proposed Action and alternatives within the affected SRMAs and the MFO.

3.2.2. Affected Environment

The Proposed Action and alternatives would occur within the Labyrinth Rims/Gemini Bridges, Colorado Riverway, South Moab, Sand Flats, and Two Rivers SRMAs within the MFO and Grand and San Juan Counties.

The MFO currently manages 230 miles of designated mountain bike trails. However, the Proposed Action and alternatives would occur on a combination of or all of the 211.2 miles of these designated mountain bike trails (see Sections 2.2 and 2.3). Therefore, only the proposed 211.2 miles of designated mountain bike trails are being analyzed in this environmental assessment. The 211.2 miles of trails were designed and constructed for mountain bikes but are open to all non-motorized uses. E-bikes are currently only authorized on motorized routes within the MFO for a total of 5,628 miles of designated natural surface OHV routes, on 1.4 miles of mountain bike trail in the Monitor and Merrimac area, and along 12 miles of paved bike pathway that parallels State Route (S.R.) 128 for three miles and U.S. Route 191 (U.S. 191) for nine miles. A total of 66 miles of these routes are motorized singletrack trails limited to motorcycles and e-bikes.

Out of the 211.2 miles of trail, 15.8 miles cross onto lands managed by the State of Utah Trust Lands Administration (TLA). TLA authorizes the use of all classifications of e-bikes on their lands and thus, this mileage was not subtracted from the BLM's calculations. The following paragraphs provide details on each affected SRMA, including those that cross onto TLA-managed lands.

Labyrinth Rims/Gemini Bridges SRMA. The Labyrinth Rims/Gemini Bridges SRMA includes the area north of the city of Moab, between Labyrinth Canyon of the Green River, U.S. 191, and the southwestern boundary of the MFO. The majority of mountain bike trails identified in the Proposed Action and alternatives are within this SRMA and include: Horsethief Trail System, Navajo Rocks Trail System, Gemini Bridges Area Trail System and 7-Up Trail, Gold Bar Rim Trail, Klondike Bluffs Trail System, Baby Steps Trail, Klonzo Trail System, and Moab Brands Trail System. In total, there are 178 miles of trails, of which 13.8 miles are on TLA-managed land, within the Labyrinth Rims/Gemini Bridges SRMA. BLM traffic and trail counters show an average of 475,000 visitors per year to the Labyrinth Rims/Gemini Bridges SRMA over the last decade, increasing steadily from 387,000 in 2014 to a peak of 540,000 in 2019 and then steadily declining to 416,000 in 2024. The SRMA is managed to protect scenic values along with opportunities for quality on-route mountain biking experiences (2008 RMP). The desired experiences are enjoying and exploring independently and developing skills and abilities with benefits of restored mind from unwanted stress and improved skills for outdoor enjoyment (2008 RMP). The SRMA is geographically split by U.S. 191, creating a separation of trails on the east side of U.S. 191 and west side of U.S. 191, with no current mountain bike specific connection. There is a complete spectrum of beginner/easy rated trails all the way to advanced/difficult rated trails throughout the SRMA.

Colorado Riverway SRMA. The Colorado Riverway SRMA consists of the lands accessed by S.R. 128, S.R. 279, Kane Creek, Entrada Bluffs, Onion Creek, Castle Valley, and Potash Roads. The Colorado Riverway SRMA has a high level of use, primarily with river related recreational use. Trails and trail systems within the Colorado Riverway SRMA include the Amasa Back Mountain Bike Trail System, and a section of the Hunter Canyon Rim and Portal Trails, for a total of 15.5 miles trail, all located on BLM-managed land. BLM traffic counter data shows an average of 1.2 million visitors per year to the SRMA over the last decade. There was an average of 51,000 visitors on the Amasa Back Mountain Bike Trail System from 2019 to 2024 excluding 2020. The Colorado Riverway SRMA is managed to provide information and a regular and continuous management presence to ensure the high volume of visitors enjoy the SRMA, while also protecting the natural resources. Additionally, the SRMA is managed to provide recreational experiences of enjoying physical activity in a scenic setting with benefits of a greater sense of adventure and improved economy (2008 RMP, Appendix M).

South Moab SRMA. The South Moab SRMA consists of lands south of the city of Moab and is geographically divided north to south by U.S. 191. The SRMA includes popular day use sites such as Ken's Lake and portions of the Mill Creek Canyon WSA. It sees moderate to heavy recreation use, both motorized and non-motorized. The Pipe Dream Trail is within this SRMA and crosses both private land and TLA-managed lands. In total, the Pipe Dream Trail is seven miles long, of which 5.2 miles are on BLM-managed land, and 1.8 miles are on TLA and private lands. BLM traffic counter data shows an average of 249,500 visitors per year to the SRMA over

the last decade. The BLM does not maintain trail counters on the Pipe Dream Trail. The SRMA is managed to provide a front country character for a variety of visitor benefits with experiences of enjoying strenuous physical exercise and a greater sense of independence, which allows for benefits of improved physical capacity (2008 RMP).

Sand Flats SRMA. The Sand Flats SRMA consists of lands east of the city of Moab and includes the Slickrock National Recreation Trail, Hell's Revenge, and Fins n Things motorized routes. The Sand Flats SRMA receives heavy recreation use, both motorized and non-motorized. The Proposed Action and alternatives include Raptor Route Trails: Hawks Glide, Falcon Flow, and Kestrel Run within the SRMA for a total of nine miles of BLM-managed trail. The Eagle Eye and Porcupine Rim trails are also within this SRMA but are not included in the Proposed Action and alternatives due to connectivity to NFS-lands and the Grandstaff WSA (see Section 2.4). BLM traffic counter data shows an average of 223,430 visitors per year to the SRMA over the last decade. The BLM does not maintain trail counters on any of the mountain bike trails within the SRMA. The SRMA is managed to maintain the scenic character of Sand Flats to allow visitors to enjoy an outdoor adventure experience and providing a high degree of information and management presence to allow for the high volume of visitors through a partnership between the BLM and Grand County. The experience managed for is enjoying a physical challenge with the benefits of improved outdoor skills for enjoyment and physical activity and increased local tourism (2008 RMP).

Two Rivers SRMA. The Two Rivers SRMA consists of lands along the Colorado and Dolores Rivers. While boating is the primary recreational activity within this SRMA, the long-distance Kokopelli Mountain Bike Trail passes through the SRMA. In total, there is 1.7 mile singletrack section of the Kokopelli Trail that passes through the SRMA, of which 0.2 miles are on TLA and the rest is on BLM-managed land. The remainder of the Kokopelli Trail within the MFO is on designated 4x4 motorized routes. The SRMA is managed to maintain a backcountry experience with emphasis on the natural landscape. This allows for benefits of restored mind from stress and a close relationship with the natural world (2008 RMP).

Extensive Recreation Management Area (ERMA). The ERMA includes all lands within the MFO not managed as an SRMA. Minimal facilities necessary to ensure visitor health and safety, reduce user conflict, and protect resources are allowed within the ERMA. The ERMA includes the Athena Trail for a total of six miles of trail. The ERMA has not been assigned recreational outcomes or RSCs.

Given the four percent growth rate identified in Section 3.2.1, it is reasonably foreseeable to anticipate a continued overall increase in visitation to each of the SRMAs in the future, with yearly fluctuations. It is reasonably foreseeable to expect that the BLM will continue the management of the affected SRMAs by following the recreation outcomes and RSCs identified in the Appendix M of the 2008 RMP.

3.2.3. Environmental Effects

As stated above, RSCs and their influences on recreation opportunities (activities, experiences, and benefits) will serve as the framework for this analysis.

3.2.3.1. *Impacts of Alternative A – No Action Alternative*

Under the No Action Alternative, the BLM would not authorize class 1 e-bikes on any additional mountain bike trails within the MFO. Class 1 e-bikes would continue to only be authorized on the existing 1.4 miles of mountain bike trail in the MFO and once constructed, on 9.8 miles of mountain bike trail within the Mud Springs Trail System.

Recreation Opportunities:

Under the No Action Alternative, the BLM would not authorize class 1 e-bikes on any of the identified mountain bike trails within the MFO. The BLM would continue to prohibit all classes of e-bikes on the identified mountain bike trails currently open only to non-motorized uses. Therefore, the BLM would not expand opportunities for e-bike recreationists including the mountain bike specific experiences and benefits with each affected SRMA, impacting recreationists seeking e-bike opportunities. A total of 83 percent of substantive public comments received (447 substantive comments out of 542 total) expressed support for allowance of class 1 e-bikes on the analyzed mountain bike trails.

Conversely, the No Action Alternative would retain the perceived non-motorized character of the identified mountain bike trails, thus continuing the activities, experiences, and benefits desired by some recreationists utilizing the identified trails and affected SRMAs. Traditional mountain bike use and e-bike use authorized under the Rehabilitation Act of 1973 for people with disabilities would continue to be allowed year-round on all mountain bike trails within the MFO, with the exception of those within a WSA. The No Action Alternative would best meet the stated desire of 15 percent (83 substantive comments out of 542 total) of the substantive public scoping comments received.

Physical RSCs:

Remoteness, Naturalness and Facilities. Under the No Action Alternative, the amount of visitor use on the identified trails would remain relatively the same as the past decade with an anticipated yearly four percent increase in visitation to the MFO and with annual fluctuations influenced by various factors (e.g. economic impacts, authorization of e-bike use for people with disabilities, etc.). This would partially preserve the perceived remoteness and naturalness of the analyzed trails and SRMAs. Recreational use overtime can affect the perceived remoteness and naturalness through impacts to natural soil and vegetation. If these impacts are not mitigated, most commonly through volunteer work, the effects are greater. For example, areas of common off-trail travel, that impact soil crusts and vegetation, are repaired and mitigated through volunteer workdays such as National Public Lands Day or through other BLM or GCATT sponsored events.

Social RSCs:

Visitor Use Levels. Under the No Action Alternative, visitation to the identified trails and trail systems within the affected SRMAs would continue to increase annually (Section 3.2.2). If visitation continues to increase, users would encounter a more crowded recreational experience, specifically during the high visitation months of April, May, and October. This may result in

visitors encountering numerous groups during a single mountain bike outing. Diminished visitor experiences at popular trails or trail systems would potentially cause some recreationists to transition to less utilized areas leading to more even distribution across the trails and trail systems in the MFO.

Social Interactions. Increase in use on the identified trails would increase the potential for negative social interactions (conflict) since there would be more recreational users. Considering the identified demand for e-bike singletrack trail opportunities, increasing reports of e-bikes already using MFO mountain bike trails, and the growing number of authorizations issued under the Rehabilitation Act of 1973 for people with disabilities, the BLM anticipates that enforcement of current mountain bike trail designations would be a challenge. Consequently, there is currently a small degree of and there may be a higher potential for conflict resulting from self-policing by recreationists participating in the authorized trail uses and those riding e-bikes. However, as discussed in Section 3.2.3.2, conflicts between class 1 e-bikes and other trail users are not common on trails that authorize class 1 e-bikes.

Operational RSCs:

Public Access. Under the No Action Alternative, class 1 e-bikes would not be authorized on the identified mountain bike trails and trail systems. Therefore, no new recreation opportunities would be added to the MFO.

Visitor Services. Under the No Action Alternative, it is anticipated the BLM and its partners would continue to provide public outreach and education efforts at the same or increased degree.

Enforcement. Some scoping comments raised concerns about the BLM's capacity to adequately enforce the prohibition of e-bikes on the analyzed trails. Under the No Action Alternative, those enforcement challenges would continue and would likely increase with the authorization of e-bikes under the Rehabilitation Act of 1973 for people with disabilities and if illegal e-bike use continues to occur or increases on the identified trails. E-bikes and traditional bikes look and perform similarly and identifying and enforcing bicycle type restrictions is difficult, time consuming, and costly. To more effectively enforce e-bikes restrictions would require an increased commitment of BLM law enforcement and recreation program staff and funding sources. The commitment of those resources would result in decreased law enforcement capacity for addressing other issues such as damage to natural and cultural resources, search and rescue support, and other illegal activity at varying degrees. Any recreation program staff committed to e-bike enforcement activities would be diverted from other visitor support services such as required management of commercial, competitive, and organized group use, facility maintenance including trails, and planning and construction efforts for new recreation opportunities.

Trail Maintenance. Under the No Action Alternative, the BLM and GCATT would continue to maintain the identified trails and trail systems. Trail maintenance needs would remain the same as they currently are, which includes an anticipation of average, annual increases in visitation.

3.2.3.2. *Impacts of Alternative B – Proposed Action (Experience Outcome Focused)*

RSCs and their influence on recreation opportunities (activities, experiences, and benefits) served as the analysis for the framework below. As described through this analysis, Alternative B would have minimal effect to the RSCs of the affected SRMAs and would enhance recreation opportunities for class 1 e-bikes. Alternative B would continue to reserve 116 miles of singletrack trails for traditional mountain bike only opportunities as a desired experience expressed during the public scoping period. Additionally, the two-phased approach would allow the BLM and GCATT to monitor for issues such as impacts from increased use to physical and social RSCs and proactively implement mitigation measures for subsequent trails.

Recreation Opportunities:

Activities. Under the Proposed Action, the primary activities in each affected SRMA would remain the same with the addition of class 1 e-bike use to the identified trails and trail systems. Perceptions expressed in public scoping comments and the definition of e-bikes indicate that class 1 e-bikes more closely resemble traditional mountain bikes than gas powered motorcycles, electric motorcycles or class 2 and 3 e-bikes.

Public comments indicated most eMTB users are looking for not simply a place to ride, but rather similar singletrack trail experiences to those of traditional mountain bike users without motorized uses (i.e. motorcycles, ATVs, vehicles, etc.). Under the Proposed Action, the total miles of singletrack trails open to class 1 e-bikes would increase by 114 miles while maintaining 116 miles of the identified singletrack trail opportunities for traditional mountain bike only experiences.

Public scoping identified concerns that authorizing e-bikes on the identified trails and trail systems would set a precedent that obscures the lines between mechanized and motorized travel and threatens non-motorized trails on all BLM-managed lands. The BLM would follow the policy guidance of DOI SO 3376 which directs the BLM to consider authorizing e-bikes on mountain bike trails (Section 1.1). If the BLM were to authorize e-bike use on the additional 114 miles under the Proposed Action, the area could serve as a test case for e-bike management. By monitoring and assessing physical and social conditions through both phases, the MFO, BLM, and others could gain objective data to inform future trail management decisions. The adaptive management actions described in the Proposed Action (Section 2.2) would also provide mechanisms to address unforeseen impacts to public safety, user experiences, and trail and soil impacts.

Additionally, some scoping comments noted concerns with e-bike technology and the potential for changes and aftermarket modifications. For example, technology currently exists that allows an e-bike to transition between class 1, 2, and 3 depending on what mode is selected and technology can be manipulated aftermarket, modifying the power of the e-bike. The 750-watt maximum power of e-bikes and three-tier system of classifying e-bikes in BLM regulations 43 CFR 8340.0-5(j), has become the industry standard and adopted by other federal agencies. Anything other than a class 1 e-bike as defined in 43 CFR 8340.0-5(j) would not be authorized on the identified trails under the Proposed Action.

Experience and Benefits. Under the Proposed Action, the BLM would continue to manage the affected SRMAs for the recreation experiences and benefits prescribed in the 2008 RMP as described in Section 3.2.1.

A total of 447 of the 542 (83 percent) substantive public scoping comments received were in support of authorizing class 1 e-bikes on the identified mountain bike trails. Of these comments, the majority referenced the desire for singletrack trail mountain bike experiences for families and groups of friends with members who are not physically capable of riding traditional mountain bikes at the same level; people with disabilities or injuries that prevent them from being able to ride traditional mountain bikes; and people who are older and no longer have the capacity to ride traditional mountain bikes. Numerous comments were from recreationists that previously rode traditional mountain bikes and can no longer for various reasons. Public scoping comments suggest that the ability to continue recreating when the use of a traditional mountain bike is no longer feasible or enjoyable by using an e-bike provides the same benefits and experiences as a traditional mountain bike such as restored mind from unwanted stress, enjoying physical activity in a scenic setting, enjoying time with family and friends in an outdoor setting, and improved physical capacity to do recreation activities, among others. These comments are supported by past research conducted in North America (MacArthur, Dill, and Person 2014).

Some scoping comments and anecdotal observations suggest that the introduction of e-bike use onto traditional mountain bike trails creates potential for user conflict between e-bike users and traditional mountain bike users, as well as other trail users. Conversely, many of the scoping comments stated that conflicts between class 1 e-bike users and non-motorized trail users are rare. A 2019 qualitative analysis of eMTB threads in mountain biking forums concluded that inexperience with an eMTB appears central to the conflict surrounding eMTB use. This study found that most participants either became more accepting (61 percent) of eMTBs after riding one or reported no change (24 percent) in their level of acceptance (Hall et al 2019). An intercept study (a survey of trail users on site) in Fruita, Colorado found that increased familiarity with eMTBs resulted in an increased positive perception of eMTBs (People For Bikes, 2017). Therefore, the perceived social conflicts would likely abate over time if e-bikes were permitted on the identified trails and trail systems. Locations where e-bike use has been authorized also provide insight to the potential for user conflict. From 2019 to 2020 the USDA Tahoe National Forest authorized class 1 e-bikes on all non-motorized mountain bike trails prior to completing the Basin Wide Trails Analysis in late 2024. During this period the USDA Forest Service did not observe any significant user conflicts, complaints, or reported safety concerns (USDA Forest Service 2024). As well, the BLM Grand Junction Field Office has authorized class 1 e-bikes on the mountain bike trails within the North Fruita Desert SRMA since 2022 (DOI-BLM-CO-G010-2021-0016-EA). Conversations with BLM representatives have indicated no significant user conflicts, complaints, or reported safety concerns have occurred.

Many of the public scoping comments received in support of authorizing class 1 e-bikes indicated a perception that class 1 e-bikes are very similar to traditional mountain bikes with same components, appearances, benefits provided and are predominantly human powered. Researchers from the Department of Technology and Engineering Studies at Brigham Young University reported that research participants reached at least moderate levels of intensity and most reached vigorous levels while riding e-bikes. They achieved a majority of the exercise response and exceeded established biometric thresholds for cardiovascular fitness (Hall, et al

2019). An analysis of comparative speed data compiled on trails in the USDA Forest Service Pines to Mines EA showed relative speeds among the top traditional mountain bike users to be almost identical to class 1 e-bike users. Among novice to intermediate traditional mountain bike riders, the differences showed class 1 e-bikes to be nominally three to five mph faster when riding uphill but at speeds equal to or slower than traditional mountain bikes on flat or downhill terrain (USDA Forest Service 2023). Other research has also concluded that there are no significant differences in speeds between traditional bike and e-bike users (Langford et al. 2015; Hall et al. 2019; Mitterwallner et al. 2021).

Physical RSCs:

The physical qualities of a landscape can be defined by characteristics such as remoteness, naturalness, and visitor facilities.

Remoteness and Naturalness. The Proposed Action would authorize the use of class 1 e-bikes on 114 miles of mountain bike trail, which is 49.6 percent of the total miles of mountain bike trails in the MFO. Increasing the miles of mountain bike trails open to class 1 e-bikes and limiting them to specific trails and trail systems may potentially decrease recreationists' perception of the area's remoteness and naturalness. More people would potentially be on the affected trails open to e-bikes, resulting in potential crowding of trails, and traditional mountain bike users would potentially be displaced to trails where e-bikes are not authorized. During a 2019 to 2020 period of e-bike authorization in the USDA Tahoe National Forest prior to completing the Basin Wide Trails Analysis in late 2024, the USDA National Forest observed an overall increase in bike use on all mountain bike trails and with both e-bikes and traditional bikes. This increase in use however, when observed at a landscape scale, did not significantly alter patterns of use, nor increase impacts to public resources (USDA Forest Service 2024).

Trampling of vegetation and soil is the most widespread and well-studied mechanism of recreation disturbance to natural systems. The most common impacts come from excessive expansion of trail width and excessive informal trail proliferation. With potential increased use with the addition of class 1 e-bikes, it is reasonable to anticipate greater occurrence of both of these impacts. However, studies have shown a curvilinear use-impact response where the majority of disturbance is a consequence of the initial use, with subsequent use, even at a high-level resulting in little additional impact (Monz et al. 2021). Sustainable trail design and building along with consistent trail maintenance and delineation with both physical barriers and signs are essential to mitigation of these impacts. Ensuring all trail users remain on designated trails, regardless of type of bike, is crucial to protection of resources including wildlife.

Facilities and Trails. Researchers have identified the importance of designing, building, maintaining, and managing trails specifically for mountain biking to reduce and mitigate ecological and social impacts (Monz 2021). The identified trails and associated facilities have been designed, built, and maintained following best management practices for mountain bike use published in documents such as *Managing Mountain Biking: IMBA's Guide to Providing Great Riding* (IMBA 2017) and *Guidelines for a Quality Trail Experience* (BLM/IMBA 2017). EMTB users are seeking the same desired built trail experiences as traditional mountain bike users (People for Bikes/BLM 2018) and class 1 eMTBs have similar characteristics including components, comparative speeds (Langford et al. 2015), and impacts to trails (IMBA 2016) as traditional mountain bikes.

Social RSCs:

The social qualities associated with use can be defined by characteristics such as contacts with others and group size.

Visitor Use Levels. In 2024, the BLM estimated there were three million annual recreation-related visits to BLM-managed lands in the MFO. Of this total, the BLM estimates that the affected SRMAs account for approximately 2,603,000 visits. This is a 23 percent increase in visitation from 2015, an average annual growth rate of four percent. The authorization of class 1 e-bikes under the Proposed Action would likely increase visitation to the affected SRMAs and the MFO primarily by facilitating use by people with age, fitness level, or disability limitations that rely on e-bikes. Public scoping comments listed these factors and the lack of e-bike singletrack opportunities as reasons they do not visit the MFO. The proportion of overall e-bike use would likely continue to increase as e-bike costs go down and demographic aging trends favor increased e-bike sales (Boulder County Parks and Open Space 2019).

Under the Proposed Action, e-bike use would be dispersed across 114 miles of singletrack mountain bike trails in the MFO. While there is no reliable evidence to determine whether visitation to the identified trails would change, the BLM anticipates that the trails would see an increase in use with potential for contact with numerous groups over a single outing. The BLM also anticipates that a percentage of traditional mountain bikers would be displaced from the affected trails to trails not authorized for e-bike use within the MFO, or to trails outside of the MFO. Increased use would be the greatest on the Moab Brands Trail System during phase one. The Moab Brands Trail System is within close proximity to the city of Moab and is currently a popular destination for mountain biking. The Mud Springs Trail System (pending completion in the Fall of 2025) and the Moab Brands Trail System would be the primary destinations for class 1 e-bike use during phase one, potentially placing a high concentration of use on these two trail systems. Through monitoring in phase one, the BLM and GCATT would identify and implement mitigations such as directional travel on certain trails, to aid in alleviating the perception of crowding from increased use. Monitoring and use of mitigations during phase one would aid in proactively identifying potential needs for phase two. Managing for increased use would fall in line with specific RSCs calling for management of a high volume of people.

Increase in visitation would also increase use of trailheads and facilities such as toilets. On higher use days, recreationists may be impacted by lack of parking at trailheads. The BLM maintains these facilities and would be impacted by an increased need to provide maintenance.

Social Interactions. As described in the Experience and Benefits section above, negative social interactions between e-bike users and traditional mountain bike or other users have not been realized in areas where e-bikes have been allowed. Studies have shown a negative perception of e-bikes may be related to inexperience with their use.

Implementing adaptive management measures identified in the Proposed Action, such as directional travel, would reduce the potential for negative social interactions with fewer contacts with other groups.

Speed and Safety. Many public scoping comments cited safety and user experience concerns commonly connected to potential higher speeds of e-bikes. An analysis of comparative speed data compiled on trails in the USDA Forest Service Pines to Mines EA showed relative speeds

among the top traditional mountain bike users to be almost identical to class 1 e-bike users while among novice to intermediate traditional mountain bike riders, the differences showed class 1 e-bikes to be nominally faster (three to five mph) when riding uphill but at speeds equal to or slower than traditional mountain bikes on flat or downhill terrain (USDA Forest Service 2023). Other research has also concluded that there are no significant differences in speeds between traditional bike and e-bike users (Langford et al. 2015; Hall et al. 2019; Mitterwallner et al. 2021) and both traditional and e-bike users reduce speed in areas of potential conflict, such as when passing other trail users (Chiarenza et al. 2024).

This finding is also reinforced by the e-bike pilot study in Boulder County that showed uphill e-bike speeds were slightly faster than conventional bike speeds at 13.8 and 12.9 mph, respectively. However, the average downhill speed of conventional bikes was faster at 15 mph compared to the average for e-bikes of 13.5 mph. (Boulder County 2019). As well, elite athletes have competed on the same course in e-bike and traditional mountain bike World Championship events. While this is an imprecise comparison, results have shown a slightly higher average speed of the eMTB racers (1.3 mph), which corresponds with other findings.

To date, research on e-bike safety has not found definitive negative or positive safety impacts. E-bikes tend to be a little faster on average, but top speeds don't tend to be faster. Much of the speed advantage occurs on uphill sections (Cherry and MacArthur 2019). Research does not exist on injury rates and severity from e-bike users and traditional bike users on natural surface trail systems. During a one-year period where e-bikes were allowed on mountain bike trails prior to completing the Basin Wide Trails Analysis in late 2024, the Tahoe National Forest have identified that safety risks are minimally different between class 1 e-bikes and traditional mountain bikes (U.S. Department of Transportation 2022).

Operational RSCs:

The operational conditions to manage recreation use can be defined by characteristics such as public access, visitor services, and management controls.

Public Opportunities. Under the Proposed Action, authorizing class 1 e-bike use on the identified trails would increase recreational opportunities, specifically for those with mobility impairments, within the MFO. This supports recreation objectives of providing high quality mountain bike opportunities by authorizing an additional 114 miles of mountain bike trails for class 1 e-bike use.

Visitor Services. The Proposed Action would require extensive multi-front public outreach and communication (websites, trailhead signs, social media, recreation apps, onsite patrols, etc.) to convey where e-bikes are and are not allowed, what types of recreation are not allowed (i.e. electric motorcycles), etiquette information, and contacts for reporting observations. Research has shown that the majority of regulation violations and social and resource impacts from recreation come from uninformed users (Monz, 2021).

Enforcement. Some public scoping comments raised concerns that current enforcement of e-bike regulations is insufficient and that managing for class 1 e-bikes only would be difficult if not unenforceable. Enforcing e-bike regulations requires adequate level of staff and funding. The MFO currently has three law enforcement officers covering 1.8 million acres and three million visitors. Class 2 and class 3 e-bikes as well as traditional bikes look and perform similarly to

class 1 e-bikes. While market data, as well as anecdotal data by BLM recreation staff and partners, indicate that class 1 eMTBs are the most common type of eMTB, public comments raised concerns of aftermarket modifications allowing for class 1 e-bikes to perform similar to other classes (e.g. throttle assisted) and at higher horse powers. Enforcing regulations, with either a prohibition of e-bikes, allowance of only class 1 e-bikes, or allowance of all classes of e-bikes but no other motorized electric bikes, would take personnel time and associated costs. As indicated in Section 2.2.1.2, adaptive management measures including a BLM and GCATT managed report system would aid with monitoring and enforcement.

Trail Maintenance. Many of the substantive public comments not in support of e-bikes expressed concerns that allowing e-bikes on the analyzed trails would cause damage to the trails requiring more trail maintenance. The Federal Lands Research Study (Department of Transportation 2022) identified only one study on natural resource impacts from e-bikes conducted in northwest Oregon by the International Mountain Bicycling Association (IMBA). The results of this study indicated no significant difference in soil displacement due to the performance or speed of the rider between eMTBs and traditional mountain bikes (IMBA 2016). However, the heavier weights of eMTBs, when compared to traditional mountain bikes, can cause increased soil displacement in grade changes and turns, but far less displacement than that caused by gas-powered dirt bikes. The study concluded that traditional bikes and eMTBs are largely similar in their impacts and that impacts are likely due to poor trail design and maintenance. Therefore, trail impacts can be limited through sustainable trail design (IMBA 2016). The 2016 IMBA study was conducted on trails with different soil types and within a different climate than the MFO. To date, there are no studies on soil displacement and other potential trail impacts from e-bikes within the dry, Colorado Plateau desert characterized by sand and clay-based soils. As mentioned above, the analyzed trails have been designed, built, and maintained following best management practices for mountain bike use published in documents such as Managing Mountain Biking: IMBA's Guide to Providing Great Riding (IMBA 2017) and Guidelines for a Quality Trail Experience (BLM/IMBA 2017). Additionally, the two-phased approach would allow the BLM and GCATT the opportunity to monitor for trail impacts through the initial year and inform where trail modifications may be necessary with the subsequent trails.

3.2.3.3. *Impacts of Alternative C -- Class 1 E-Bikes on All Identified Trails*

The impacts of Alternative C would be the same as those presented with the Proposed Action with addition of the following. As described through this analysis, Alternative C would have minimal effect to the RSCs of the affected SRMAs and would enhance recreation opportunities for class 1 e-bikes. However, under Alternative C only 18.8 miles of singletrack mountain bike trails would be retained for traditional mountain bike opportunities only. The BLM and GCATT would monitor for issues such as impacts from increased use to physical and social RSCs and any mitigation of impacts would be implemented overtime.

Recreation Opportunities:

Activities. Under Alternative C, the primary activities in each affected SRMA would remain the same with the addition of class 1 e-bike use to all identified trails and trail systems.

The total miles of singletrack trails open to class 1 e-bikes would increase by 211.2 miles, all of which would not be authorized for motorized uses. Traditional mountain bike only trail experiences would only be available on the Lower Porcupine Rim, Porcupine Rim, Fisher Mesa, Hidden Valley, and Eagle Eye singletrack trails.

Experience and Benefits. Under Alternative C, the BLM would continue to manage the affected SRMAs for the recreation experiences and benefits prescribed in the 2008 RMP as described in Section 3.2.1.

Physical RCSs:

The physical qualities of a landscape can be defined by characteristics such as remoteness, naturalness, and visitor facilities.

Remoteness and Naturalness. Alternative C would authorize class 1 e-bike use on 211.2 miles of non-motorized mountain bike singletrack trail. Increasing the miles of mountain bike trails open to class 1 e-bikes would result in similar impacts to remoteness and naturalness as described in Alternative B. However, potential for crowding of trails may be reduced when compared to Alternative B because e-bike use would be spread over 211.2 miles of trail, instead of 114 miles of trail. Additionally, traditional mountain bike users may potentially be displaced to trails outside of the MFO where e-bikes are not allowed.

Social RSCs:

The social qualities associated with use can be defined by characteristics such as contacts with others and group size. Social RSCs including Social Interactions and Speed and Safety would be the same as Alternative B.

Visitor Use Levels. The allowance of class 1 e-bikes under Alternative C would likely have similar effects on visitor use levels as Alternative B, which would result in increased visitation to the affected SRMAs and the MFO primarily by facilitating use by people with age, fitness level, or disability limitations that rely on e-bikes. However, under Alternative C, e-bike use would be dispersed over 211.2 miles of singletrack mountain bike trails all at one time. Class 1 e-bike use would not be concentrated onto two main trail systems during the initial year and any impacts observed through monitoring would be mitigated overtime. Similar to Alternative B, while there is no reliable evidence to determine whether visitation to the affected trails would change, the BLM anticipates that the trails would see an increase in use with potential for contact with numerous groups over a single outing. The BLM also anticipates that a percentage of traditional mountain bikers would be displaced from the identified trails to other trails outside of the MFO. Implementing directional travel on certain trails would aid in alleviating the perception of crowding from increased use, which would fall in line with specific RSCs calling for management of a high volume of people.

Operational RSCs:

The operational conditions to manage recreation use can be defined by characteristics such as public access, visitor services, and management controls. Visitor Services and Enforcement conditions would be the same as Alternative B.

Public Opportunities: Public opportunities would be similar to Alternative B, with the exception that class 1 e-bike opportunities would be expanded to include 211.2 miles of mountain bike trail, while traditional mountain bike only opportunities would be reduced to 18.8 miles of trail.

Trail Maintenance: Impacts to trail maintenance would be similar to Alternative B, with the exception of a two-phased approach. All trail maintenance issues identified through monitoring would be mitigated overtime.

3.3. Issue 2: How would the proposed authorization of class 1 e-bike on the identified mountain bike trails affect socioeconomic resources in the MFO?

3.3.1. Methodology and Assumptions

The analysis area for socioeconomics is the MFO, which includes all Grand County and the northern part of San Juan County. This analysis area was chosen because it contains the trails and systems included in the Proposed Action and alternatives, as well as the lodging and businesses that would be expected to be impacted by the Proposed Action and alternatives. Socioeconomic impacts could result from changes in visitation and the effects of such on spending within the economy of the analysis area. Assumptions include the potential for changes in visitation numbers (visitor days) and spending patterns associated with different visitor segments. BLM assumes that the spending patterns of these groups are similar, including traditional and e-bike rider; the extent that they may differ could result in differing economic impacts. For example, if either user group had a propensity to stay in overnight lodging as opposed to camping, the lodging group's economic impact would be greater. An additional assumption is that there may be impacts to nonmarket values realized by affected user groups.

3.3.2. Affected Environment

BLM-managed lands within the MFO constitute one of the top destinations for recreationists of all types. In Fiscal Year (FY) 2024, the MFO received 2,944,931 visitors at established recreation sites. The BLM estimates that this visitation generated over 1,600 full and part-time jobs, over $71 million in labor income and over $211 million in total economic output (BLM 2025). This economic activity was generated by a wide variety of recreationists, including but not limited to bicyclists, OHV users, hikers, and river runners.

The MFO currently has 230 miles of designated mountain bike trails. BLM collects visitor data via traffic counters on several of these trails; however, obtaining accurate totals is challenging due to multiple entry and exit points in a trail system. Therefore, this visitor data can only be used as a proxy for total number of traditional or e-bike mountain bike users. As an example of use, the Moab Brands Mountain Bike Trail System saw over 34,000 users in FY2024, an increase of over 16 percent from FY2023. See Section 3.2.2 for a complete summary of the visitor data collected on trails and trail systems in the various SRMAs within the MFO. Although currently not authorized on designated mountain bike trails in MFO, observations by BLM employees suggest the popularity of e-bikes is growing, as discussed in Section 1.1.

In addition to the economic impacts described above, it is important to also consider non-market values associated with BLM activities, including mountain biking. The term nonmarket values refers to the benefits individuals attribute to experiences of the environment or uses of natural and cultural resources that do not involve market transactions and therefore lack prices. Examples include the benefits received from hiking or mountain biking on trails which have no fee, but for which users likely would be willing to pay something for the experience.

Estimates of nonmarket values supplement estimates of income generated from commodity uses to provide a more complete picture of the economic contributions derived from recreation on public lands. Unlike gasoline or employee wages, these values either do not have a market or do have a market but are difficult to quantify. This is especially important regarding recreation activities on BLM which are typically "free" to the user but still have value even if not expressed in monetary terms. Despite the difficulties associated with measurement of these values, it is well-accepted that the natural, recreational, and cultural resources of an area, and the open space the area may provide, have value, even if difficult to quantify in dollars.

3.3.2.1. *Reasonably Foreseeable Trends and Planned Actions*

It is reasonably foreseeable that the demand for recreational opportunities for both traditional and e-bike mountain bike users would continue to increase (Section 3.1).

3.3.3. Environmental Impacts

3.3.3.1. *Impacts of Alternative A – No Action Alternative*

Under the No Action Alternative, class 1 e-bikes would not be authorized on any of the identified mountain bike trails within the MFO, thus socioeconomic impacts would likely remain unchanged. However, the lack of recreation opportunities for class 1 e-bike users may result in lower visitation by this particular user group with resultant lower spending in the local economy. Class 1 e-bike users would be unable to reap the benefits of a variety of non-market values, including the mountain bike experience itself and its related benefits of exercise and this particular form of outdoor recreation. Conversely, traditional mountain bike riders would continue to visit the MFO to use these trails and continue spending in the local economy. These users would also continue to see whatever non-market values they currently experience unimpaired by the addition of another user group.

3.3.3.2. *Impacts of Alternative B – Proposed Action (Experience Outcome Focused)*

Under the Proposed Action, class 1 e-bikes would be authorized on a total of 114 miles of identified mountain bike trails within the MFO over the course of two phases in which socioeconomic impacts would be more likely to occur relative to the No Action Alternative. Increased opportunities for class 1 e-bike users would result in increased visitation by this particular user group with resulting increased spending in the local economy. Class 1 e-bike users would also be able to reap the benefits of a variety of non-market values, including the mountain bike experience itself and its related benefits, on the trails authorized for e-bike use. Conversely, traditional mountain bike users would be less likely to be displaced because 116 miles of mountain bike trails would remain available only to traditional riders. Therefore,

traditional mountain bike users would continue to visit the MFO to use these trails which would result in the continued spending in the local economy. Traditional mountain bike users would also continue to see whatever non-market values they currently experience relatively unimpaired by the addition of another use group.

3.3.3.3. *Impacts of Alternative C -- Class 1 E-Bikes on All Identified Trails*

Under Alternative C, class 1 e-bikes would be authorized on an additional 211.2 miles of mountain bike trails within the MFO, and thus socioeconomic impacts would be more likely to occur relative to the No Action Alternative. Increased opportunities for e-bike users would likely result in increased visitation by this particular user group with resulting increased spending in the local economy within the MFO. E-bike users may also be able to reap the benefits of a variety of non-market values, including the mountain bike experience itself and its related benefits of exercise and this particular form of outdoor recreation. Conversely, traditional mountain bike riders would be more likely to be displaced, and may be less likely to visit the area to use these trails and continue spending in the local economy. These users may also see whatever non-market values they currently experience somewhat impaired by the addition of another user group.

CHAPTER 4. PUBLIC INVOLVEMENT, CONSULTATION AND COORDINATION

4.1. Public Involvement

The BLM initiated external scoping by listing the project description on October 1, 2024 to the BLM National NEPA Register and invited the public to comment on the proposed project. External scoping concluded on November 8, 2024. A scoping report was published on the project website on March 4, 2025 and summarizes the concerns raised during the scoping period.

The BLM presented the project to the Grand County Trail Mix advisory committee on August 13, 2024, and the Grand County motorized trail advisory committee on August 15, 2024. Monthly updates on the project have been provided at these committee's meetings.

The BLM attended the 2024 Outerbike event from October 4 to October 6, 2025 to provide information to the mountain biking community.

The BLM released this draft EA for a 30-day public comment period on June 30, 2025. The BLM will incorporate public comments into the final EA.

CHAPTER 5. LIST OF PREPARERS

Table 4. List of Preparers.

Name	Title	Area of Responsibility
Keri Nelson	Outdoor Recreation Planner	Project Lead, Recreation
Nate Huber	Natural Resource Specialist	Air Quality/Greenhouse Gases

Name	Title	Area of Responsibility
Nicole Flint	Planning and Environmental Specialist	Native American Concerns, NEPA Coordination and Review
Ami Schlosser	Archeologist	Cultural Resources
Emily Lessner	Physical Scientist (Paleontology)	Paleontology
Gabriel Bissonnette	Aquatic Ecologist	Fisheries, Floodplains, Wetlands/Riparian Zones
Todd Murdock	Assistant Field Manager, Resources	Geology/Mineral Resources, Energy Production, Water, Wastes
Reed Kennard	Realty Specialist	Lands/Access
Alan Bass	Rangeland Management Specialist	Livestock Grazing, Rangeland Health Standards, Soils
Chris Quirin	Natural Resource Specialist (Plants)	Vegetation, all classifications
Yoni Argov	Wildlife Biologist	Wildlife, all classifications
Bill Stevens	Outdoor Recreation Planner	Natural Areas, Lands with Wilderness Characteristics, Socioeconommics, Wilderness, Wild and Scenic Rivers
Katie Stevens	Outdoor Recreation Planner	ACEC, Visual Resources
Lydia Zowada	Natural Resource Specialist (Fuels)	Fire/Fuels Management, Woodlands

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APPENDICES

APPENDIX A: INTERDISCIPLINARY TEAM CHECKLIST

Project Title: Allowance of E-bikes on Designated Mountain Bike Trails
NEPA Number: DOI-BLM-UT-Y010-2025-0051-EA

SPECIALIST DETERMINATIONS: ***(Choose one of the following options for the "Determination" column)***

NP = not present in the area impacted by the proposed action or alternatives
NI = present, but not affected to a degree that detailed analysis is required
PI = present with relevant impacts that need to be analyzed in detail in the EA or EIS

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.

RESOURCES AND USES CONSIDERED (INCLUDING SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)

Resource/Use	Determi-nation	Rationale for Determination	Name of Assigned Specialist	Date
Air Quality Greenhouse Gas Emissions	NI	Any fugitive dusk generated from the addition of class 1 e-bikes on designated mountain bike trails would be temporary and disperse rapidly. Additionally, these temporary impacts to air quality are already present on the trails proposed for class 1 e-bikes.	N. Huber	4/15/25
Areas of Critical Environmental Concern (ACEC)	NP	None of the mountain bike trails or trail systems identified under the Proposed Action and alternatives are within designated ACECs. See 2008 RMP, map 21.	K. Stevens	3/5/2025
BLM Natural Areas	NP	No BLM Natural Areas are present within the project area. See 2008 RMP, map 16.	B. Stevens	4/1/25
Cultural Resources		Official consultation with SHPO and the tribes is currently in process and will be completed by the final EA.		
Fisheries – Non-designated Species (including UT BLM sensitive species)	NI	Some mountain bike trails occur within the 100-year floodplain of the Colorado River. However, the Proposed Action and alternatives would occur on designated mountain bike trails. The impacts from the proposed use of class 1 e-bikes are not expected to create more disturbance to fisheries than what is already present. Therefore, the Proposed Action and alternatives is not expected to negatively impact native or sensitive fish species.	G. Bissonette	5/82025
Fisheries – Threatened, Endangered or Candidate Species	NI	Some mountain bike trails occur within the 100-year floodplain of the Colorado River which is critical habitat for threatened and endangered Colorado River fish. However, the Proposed Action and alternatives would occur on designated mountain bike trails. The impacts from the proposed use of class 1 e-bikes are not expected to create more disturbance to TE fisheries or critical habitat than what is already present. Therefore, the Proposed Action and alternatives would not negatively impact TE fish species.	G. Bissonette	5/8/2025
Floodplains	NI	Some mountain bike trails occur within the 100-year floodplain of the Colorado River and on ephemeral floodplains within the uplands. However, the Proposed Action and alternatives would occur on designated mountain bike trails. The impacts from the proposed use of class 1 e-bikes are not expected to create more disturbance to floodplains than what is already present. Therefore, the Proposed Action and alternatives would not negatively impact floodplain form, function, or connectivity. No new	G. Bissonette	5/8/2025

Resource/Use	Determi-nation	Rationale for Determination	Name of Assigned Specialist	Date
		water withdrawals that impact fluvial processes are proposed.		
Fuels/Fire Management	NI	The proposed action alternatives would not pose an increased risk to fire and fuels management. While an increase of people in an area has the potential to increase human caused fires, the activity of e-biking on designated routes would not likely be a threat.	J.Nesbitt	5/8/2025
Geology/ Mineral Resources/ Energy Production	NI	Mining claims or leasable mineral resource/energy production are present in the proposed project areas, but because the Proposed Action and alternatives would be limited to designated mountain bike trails, it would not preclude future production of mineral resources. Therefore, the proposed project would not impact mineral resources.	T. Murdock	3/7/25
Lands with Wilderness Characteristics	NI	Approximately 4.66 miles of designated mountain bike trails are within lands with wilderness characteristics as identified by BLM. These are designated existing trails. Wilderness characteristics would not be affected by e-bike use beyond impacts currently present. Almost all of this mileage is on the very periphery of the LWC areas.	B. Stevens	4/1/25
Lands/ Access	NI	The presence of e-bikes on designated mountain bike trails would not have any impacts on lands and realty beyond any that may already exist for mountain bikes. Use of designated recreation trails is temporary and transitory in nature and therefore does not have any lasting impacts on land use authorizations. The BLM MFO holds right-of-way reservations for the trails, but no amendments would be required with the approval of e-bike use.	L. Wilkolak	5/8/25
Livestock Grazing	NI	The Proposed Action and alternatives would be on exiting mountain bike trails. The inclusion of class 1 e-bikes would have no additional effects on livestock grazing than what is already present.	A Bass	6/17/25
Native American Concerns	NI	Government-to-government consultation letters were mailed to the ten Tribes on May 22, 2025. No responses have been received to date.	Nicole Flint	6/25/2025
Paleontology	NI	The proposed project area consists of geologic units of Potential Fossil Yield Classification (PFYC) 2-5, indicating a very high potential for encountering paleontological resources. There are at least 167 documented paleontological localities within a one-mile radius of trails proposed in Alternative C and at least an additional 144 documented paleontological localities within a one-mile radius of all designated mountain bike trails within the MFO. Surveys and NEPA analysis have not been completed for all MFO designated mountain bike trails or are outdated. Paleontological monitoring of mountain bike trails would occur at a rate based on stability and erosional rate of the relevant geologic unit. Designation of non-motorized mountain bike trails for class I e-bike use is not expected to disturb or damage paleontological resources to an extent beyond what currently occurs with mountain bike trail use. All activities would occur on well-marked, existing trails and parking areas and would not require any new ground disturbance. If paleontological	E. Lessner	5/28/25

Resource/Use	Determi-nation	Rationale for Determination	Name of Assigned Specialist	Date
		resources were encountered, activity at that location would stop and the BLM Moab Field Office would be notified.		
Rangeland Health Standards	NI	The Proposed Action and alternatives would have no effect on rangeland health. The trails on which the Proposed Action and alternatives would occur on pre-existing, designated mountain bike trails and would thus have no new effects on Rangeland Health.	A Bass	6/17/25
Recreation	PI	Limited research exists regarding the social and physical affects of e-bikes on the recreation experiences a trail or trail system provides. Based on the available research, the allowance of class 1 e-bikes on mountain bike trails within the Moab Field Office are likely to affect the recreation setting characteristics and recreation opportunities (activities, experiences, and outcomes) of the Labyrinth Rim/Gemini Bridges Special Recreation Management Area (SRMA) and Sand Flats SRMA.	K. Nelson	5/12/2025
Socioeconomics	PI	There is a lack of evidence suggesting that allowing e-bikes will lead to an overall increase in recreation visitation, and thus an increase in recreation spending impacting the planning area economy. It is possible that catering to a new group of users will have that impact, but it is also possible that some traditional (non-e bike) users will be deterred from using the designated trails to the extent that they will reduce their visits to the planning area and associated spending. To the extent that an increase in e-bike use is not offset by a decrease in traditional users, there would be an impact to the planning area's economy, especially if these new users are coming from outside the planning area. An unknown, but possible impact could be increased spending at local bike shops for e-bike rentals and/or purchases. Regardless of what scenario actually occurs, the overall impact on the planning area's economy is likely to be small. This is due to the dominance or recreation spending in the local economy. According to data from U.S. Department of Commerce Census Bureau, County Business Patterns (2023), recreation and tourism employment accounted for 48.9 per cent of total employment in Grand County. Any use associated with the proposed action likely would be relatively small in terms of visitor use on Moab BLM lands, currently estimated at approximately 1.8 million visitor days annually.	B. Stevens	5/21/25
Soils	NI	The proposed action to designate up to 211 miles of non-motorized mountain bike trails for class 1 e-bikes occurs across multiple soil types in the MFO. While the inclusion of class 1 e-bikes is not expected to have impacts greater than what already occurs from non-motorized use, it is possible that adjacent soils would face impacts from trail widening, off-route travel, fugitive dust, or corrective modifications to mitigate user conflicts. These considerations are discussed in the design features of the EA and would be considered case-by-case through monitoring and adaptive management. Therefore, soils would not be impacted to the degree further analysis is required.	C. Quirin	6/25/25

Resource/Use	Determi-nation	Rationale for Determination	Name of Assigned Specialist	Date
Vegetation – Non-designated Species	NI	The proposed action to designate up to 211 miles of non-motorized mountain bike trails for class 1 e-bikes occurs across multiple vegetation communities in the MFO. While the inclusion of class 1 e-bikes is not expected to have impacts greater than what already occurs from non-motorized use, it is possible that the surrounding vegetation communities would face impacts from trail widening, off-route travel, fugitive dust, or corrective modifications to mitigate user conflicts. These considerations are discussed in the design features of the EA and would be considered case-by-case through monitoring and adaptive management. Therefore, non-designated vegetation would not be impacted to the degree further analysis is required.	C. Quirin	6/25/25
Vegetation – UT BLM Sensitive Species	NI	The proposed action to designate up to 211 miles of non-motorized mountain bike trails for class 1 e-bikes has the potential to occur in habitat of BLM UT sensitive plant species. While the inclusion of class 1 e-bikes is not expected to have impacts greater than what already occurs from non-motorized use in these areas, it is possible that habitats would face impacts from trail widening, off-route travel, fugitive dust, or corrective modifications to mitigate user conflicts. These considerations are discussed in the design features of the EA and would be considered case-by-case through monitoring and adaptive management. Surveys for SSS plants would occur in response to proposed trail modifications in areas of potential habitat and avoid the active growing period of the species at their implementation. Therefore, sensitive plant species would not be impacted to the degree further analysis is required.	C. Quirin	6/25/25
Vegetation – Threatened, Endangered or Candidate Species	NI	The proposed action involves designation of up to 211 miles of non-motorized mountain bike trails for class 1 e-bike use. Of the 211 miles of trail, 162.5 miles and 2.9 miles fall within modeled ranges of Jones' Cycladenia and Navajo Sedge respectively. However, impacts from the proposed use of class 1 e-bikes are not expected to create more disturbance to threatened, endangered, or candidate plant species than what is already present from mountain biking. Any trail design modifications to address concerns raised with e-bikes in potential habitat would be reviewed prior to implementation for habitat suitability and occupancy, followed by consultation with the service if applicable. Therefore, T&E plants would not be impacted to a degree requiring further analysis.	C. Quirin	6/25/25
Vegetation – Invasive Species/Noxious Weeds	NI	The proposed action to designate up to 211 miles of non-motorized mountain bike trails for class 1 e-bikes occurs in areas with known invasive species/noxious weeds in the MFO. While the inclusion of class 1 e-bikes is not expected to have impacts greater than what already occurs from non-motorized use, it is possible that invasive species would face impacts from disturbances associated with trail widening, off-route travel, or corrective modifications to mitigate user conflicts. To reduce these threats, any proposed maintenance would include appropriate washing of equipment and vehicles as well as any rehab necessary to promote native vegetation and minimize off-route travel. Invasive species/noxious weeds information signage may	C. Quirin	6/25/25

Resource/Use	Determi-nation	Rationale for Determination	Name of Assigned Specialist	Date
		also help mitigate impacts from different user groups at trailheads. These considerations are discussed in the design features of the EA and would be considered case-by-case through monitoring and adaptive management. Therefore, invasive species/noxious weeds would not be impacted to the degree further analysis is required.		
Visual Resources	NI	Some of the mountain bike trails identified mountain bike trails under the Proposed Action and alternatives are within areas managed as VRM Class II, where the level of change to the landscape should be low. The visual impact of the trails themselves was considered during the initial designation of the trail. The type of bicycle authorized, traditional vs. e-bike, would not alter the visual impacts of the trail due to the transitory nature of mountain biking. There is no impact to visual resources from changing the type of two wheeled vehicle allowed on the already designated mountain bike trail.	K. Stevens	3/5/2025
Wastes (hazardous or solid)	NI	All trash, refuse or waste generated during the maintenance of the Proposed Action or alternatives would be removed from the proposed project area and disposed of in accordance all applicable local and state regulations. No hazardous wastes are currently present or expected to be generated during, or as a result of, the proposed construction, maintenance, or recreational use.	T. Murdock	3/7/25
Water Resources/ Quality (drinking, surface, ground)	NI	The Proposed Action and alternatives is not expected to negatively impact surface or groundwater resources and potential impact would be mitigated to a degree that the resource does not require further analysis. The type of recreational use under the Proposed Action and alternatives would create temporary shallow surface disturbance from bike traffic. During maintenance of the trail, the crews would contain and clean-up any trash, human waste, or oil/grease/gas spills generated during construction to prevent waste from potentially seeping into surface or groundwaters. The Proposed Action and alternatives could affect surface water runoff patterns and a potential impact could be erosion of the trail over time from surface water run-off, especially along steeper elevations. Maintenance of the trail would be sufficient to repair any sections damaged by water erosion and sediment transport. Additionally, the Proposed Action and alternatives would not create greater disturbance to water resources than what is currently present because the Proposed Action and alternatives would occur on existing, designated mountain bike trails.	T. Murdock	3/7/25
Wetlands/Riparian Zones	NI	Some mountain bike trails identified in the Proposed Action and alternatives occur within riparian areas. However, the Proposed Action and alternatives would occur on designated mountain bike trails. The impacts from the proposed authorization of e-bikes are not expected to create more disturbance to riparian areas than what is already present. Therefore, the Proposed Action and alternatives is not expected to negatively impact riparian	G. Bissonette	5/8/2025

Resource/Use	Determi-nation	Rationale for Determination	Name of Assigned Specialist	Date
		areas. No new water withdrawals that impact riparian hydrology are proposed.		
Wilderness / WSA	NP	No Wilderness or WSAs are present within the project area. See 2008 RMP, map 23.	B. Stevens	4/1/25
Wildlife – Non-designated species	NI	The Proposed Action and alternatives would occur on designated mountain bike trails; The impacts from the proposed use of e-bikes are not expected to create more disturbance to Non-designated Wildlife Species than what is already present.	Y. Argov	3/4/25
Wildlife – UT BLM Sensitive Species	NI	The Proposed Action and alternatives would occur on designated mountain bike trails; The impacts from the proposed authorization of class 1 e-bikes are not expected to create more disturbance to Utah BLM Sensitive Wildlife Species than what is already present.	Y. Argov	3/4/25
Wildlife – Migratory Birds (incl. raptors)	NI	The Proposed Action and alternatives would occur on designated mountain bike trails; The impacts from the proposed authorization of class 1 e-bikes are not expected to create more disturbance to migratory birds than what is already present.	Y. Argov	3/4/25
Wildlife – Threatened, Endangered or Candidate Species	NP	There are no threatened, endangered or candidate wildlife species or their associated habitats present within or near the proposed project area according to the 2008 RMP and habitat models obtained from the USFWS.	Y. Argov	3/4/25
Wild and Scenic Rivers	NP	No WSR corridors are present within the project area. See 2008 RMP, map 22.	B. Stevens	4/1/25
Woodland/Forestry	NI	The mountain bike trails included in the Proposed Action and alternatives are already established. The authorization of class 1 e-bike use would not alter the footprint of the trails, or increase impacts to existing woodland and forestry resources, such as individual trees in close proximity to the trails, nearby pinyon and juniper stands, or areas of closed canopy pinyon pine and juniper forest.	L. Zowada	5/22/25

APPENDIX C: Maps

Figure 1 Alternative B -- Proposed Action Map

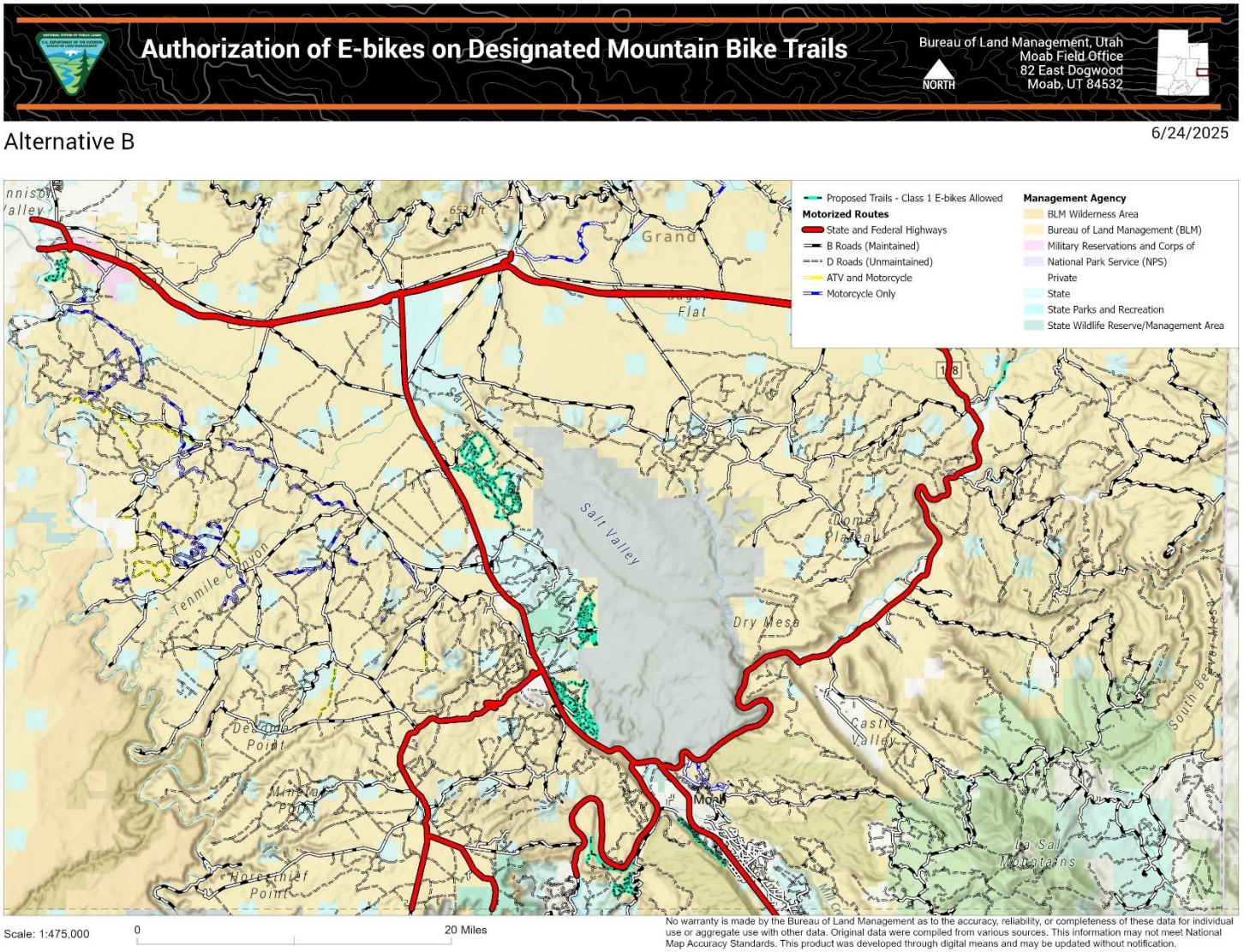

Figure 2 Alternative C Map

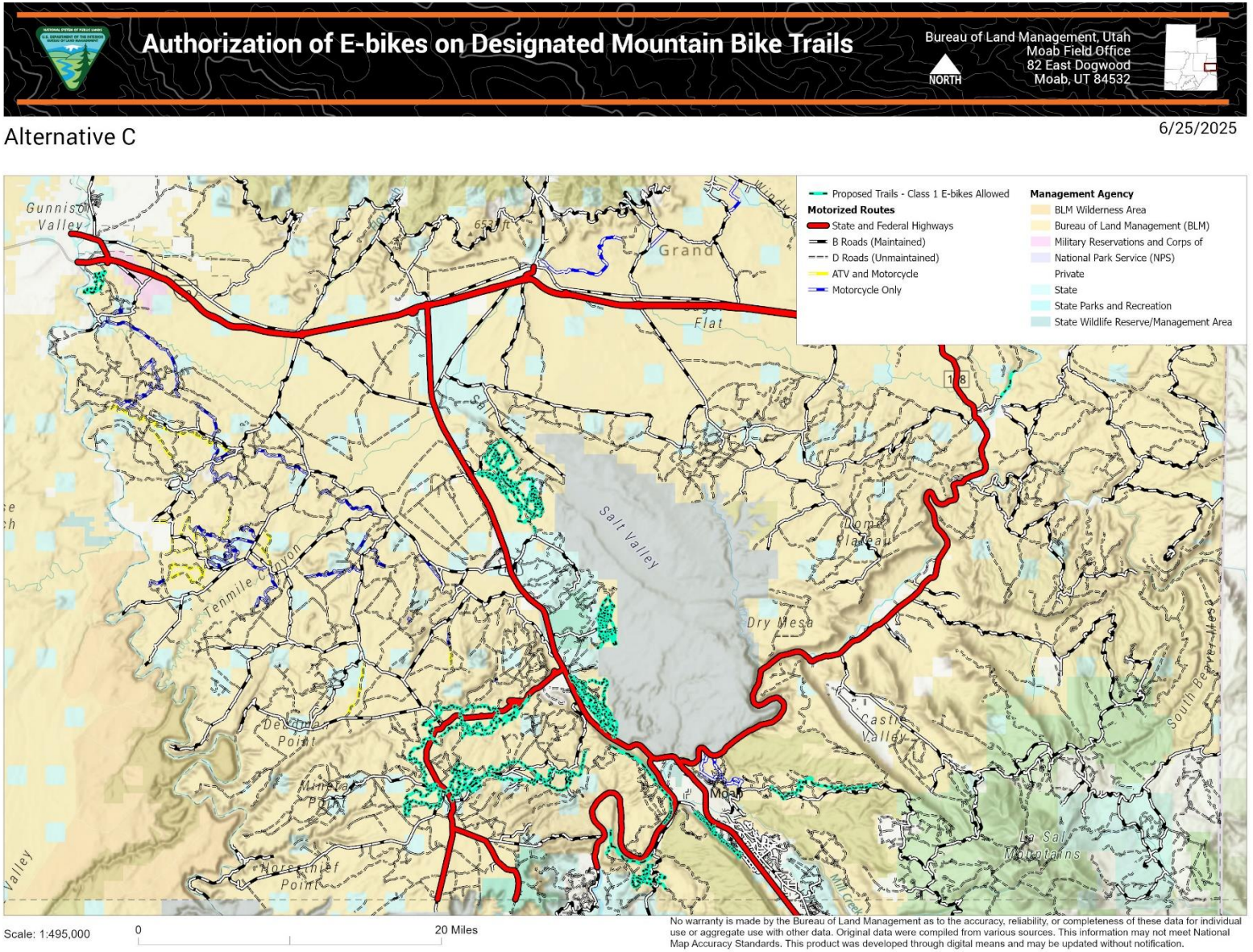

Figure 3 Labyrinth Rims/Gemini Bridges SRMA Map

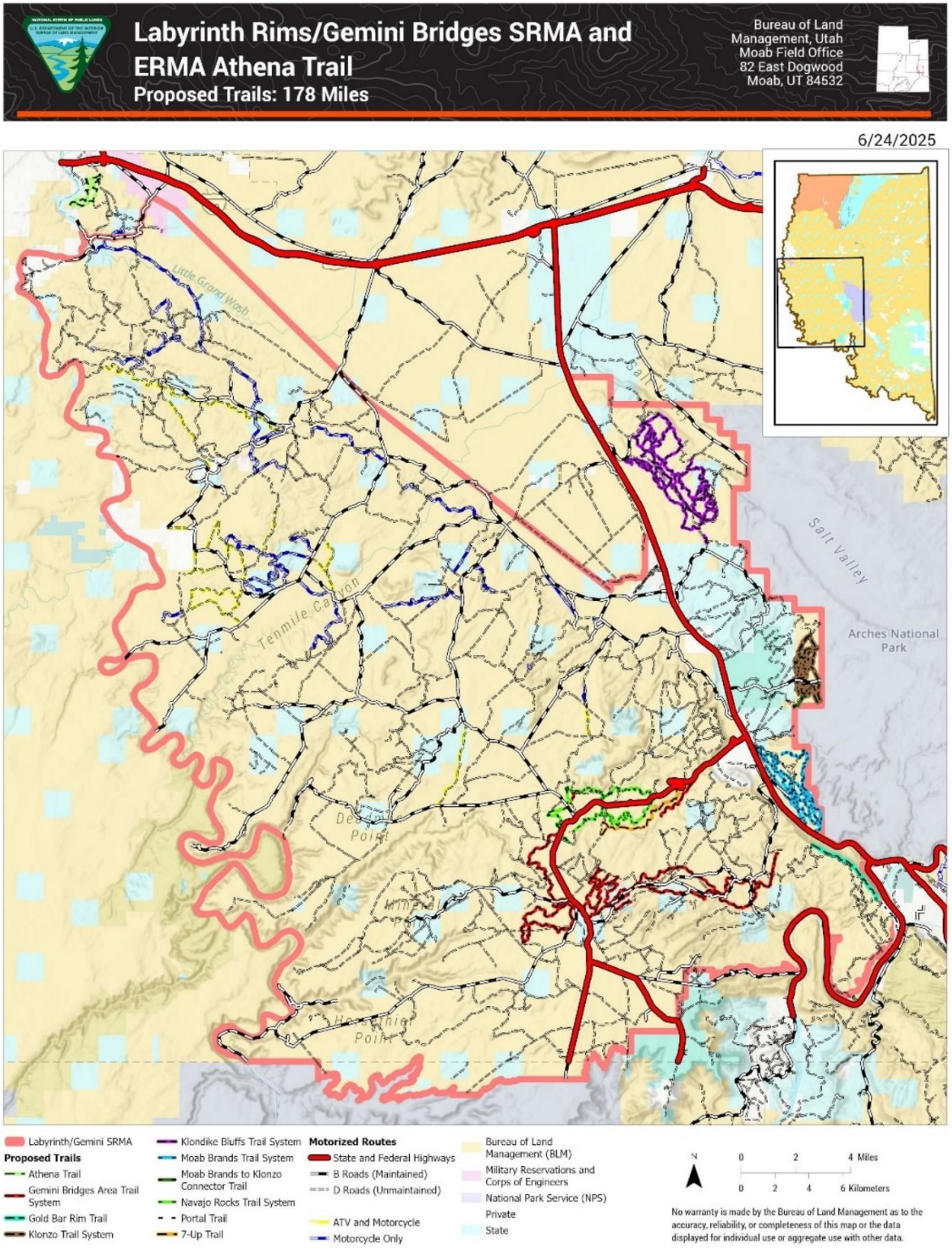

Figure 4 Colorado Riverway SRMA Map

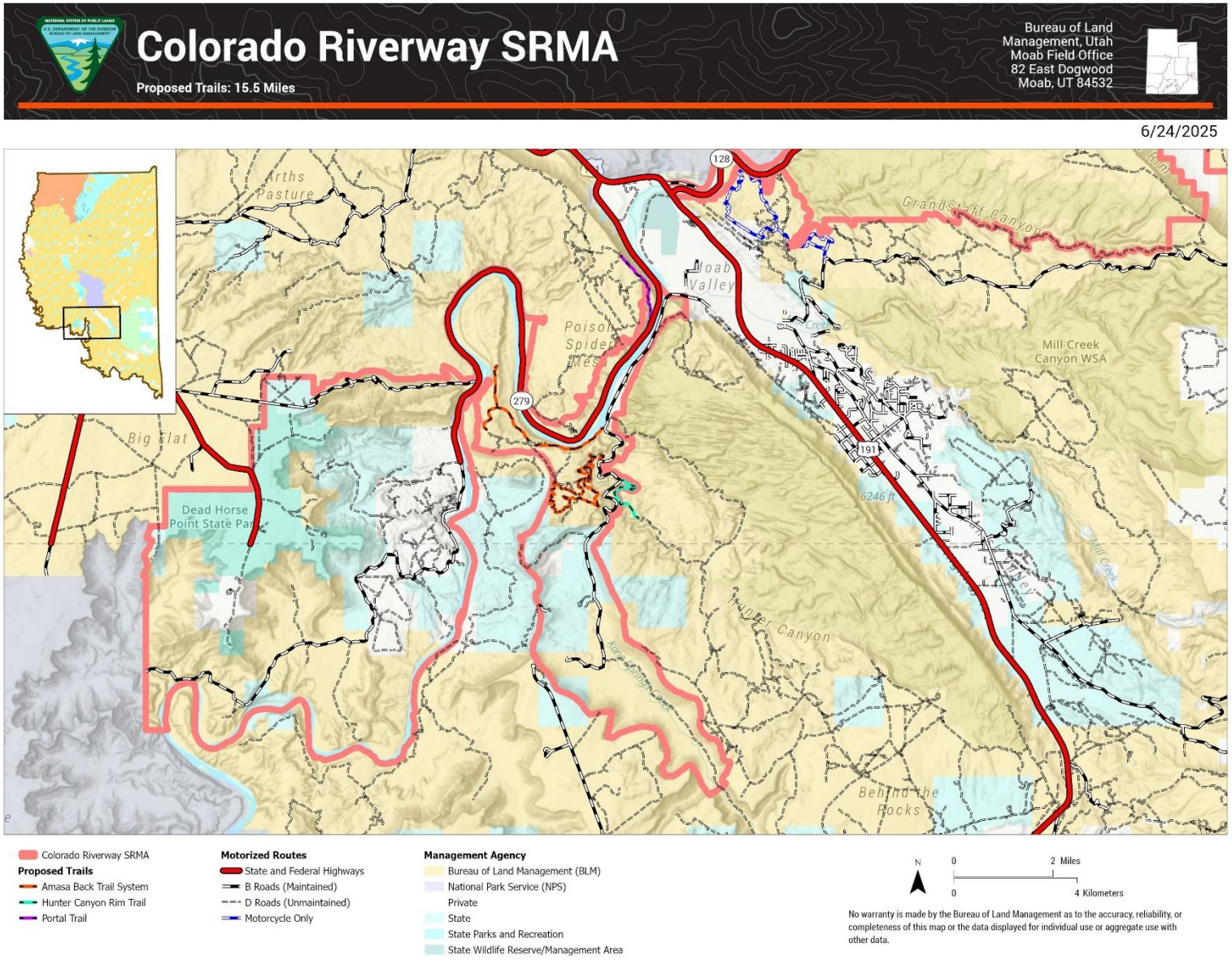

Figure 5 Sand Flats SRMA Map

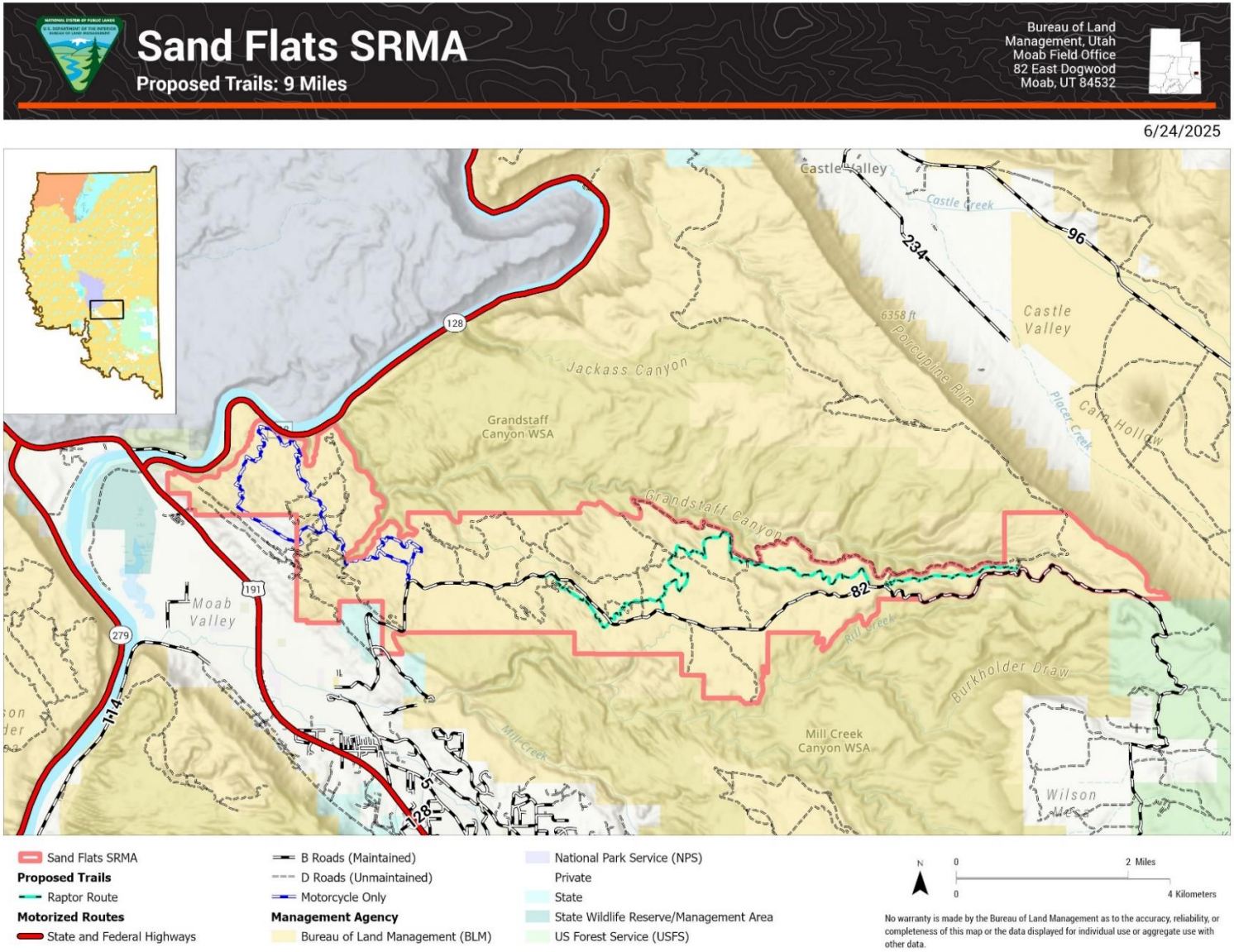

Figure 6 South Moab SRMA Map

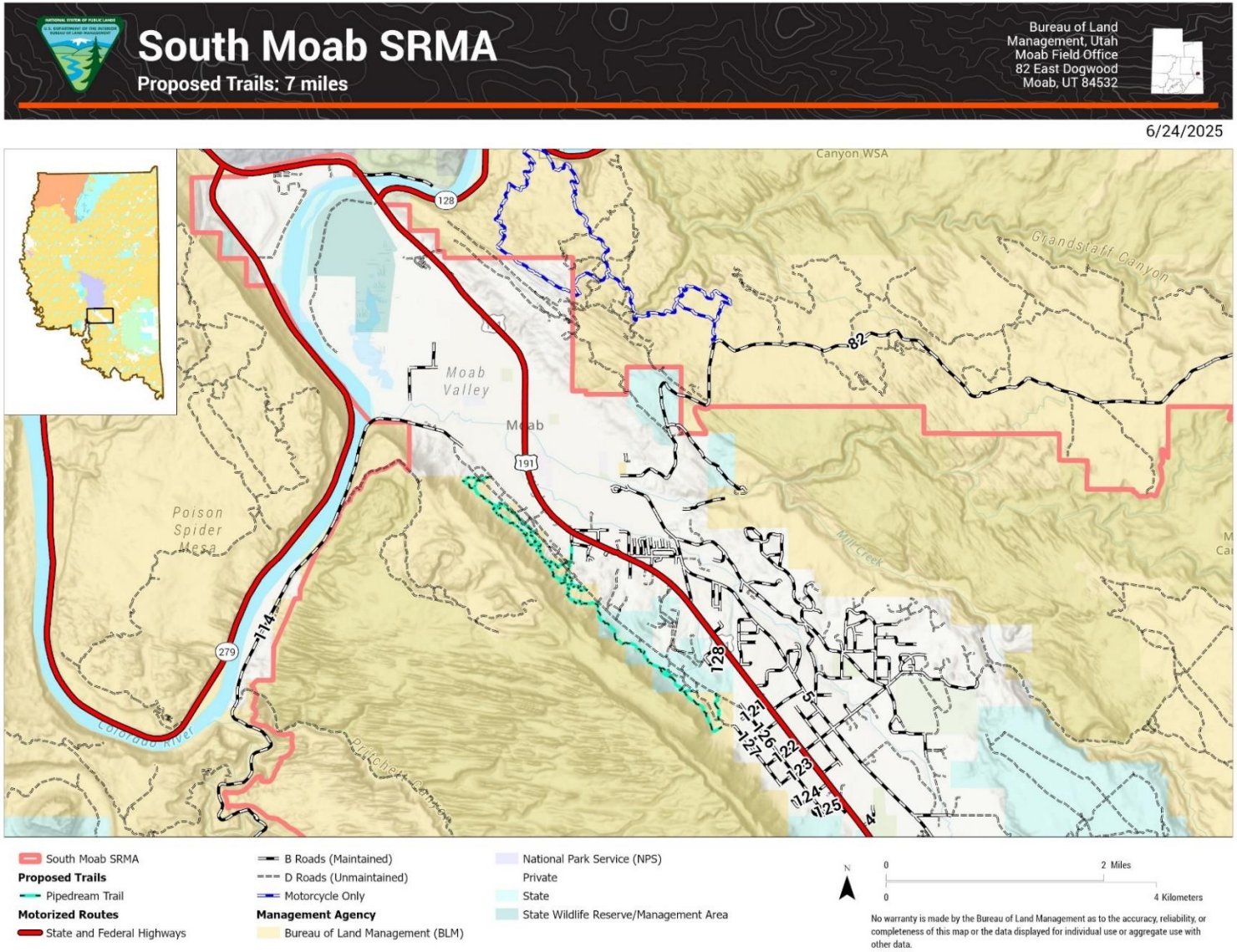

Figure 7 Two Rivers SRMA Map