

**U.S. Department of the Interior
Bureau of Land Management**

Scratchgravel Hills Recreation Area Management Plan

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Overview of the Scratchgravel Hills

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The Bureau of Land Management's mission is to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.

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Chapter 1 – Purpose and Need for Action

Introduction

The Scratchgravel Hills Special Recreation Management Area (SRMA) contains approximately 5500 acres of BLM-administered public land and is located approximately five miles northwest of Helena, MT (see Map 1). The area is currently a very popular recreation destination that provides numerous day-use opportunities, such as hiking, trail running, horseback riding, mountain biking, and disc-golfing.

The Scratchgravel Hills are now primarily surrounded by private lands including subdivisions, ranches, and other developments. The Fort Harrison Army Airfield is also located nearby. The area is inhabited by bluebunch wheatgrass with a sagebrush component (approximately 3200 acres). There are also dry forests with a mature ponderosa pine overstory and a Douglas fir, or grass, understory (approximately 2300 acres). There are no live streams in the area and riparian habitat is extremely rare, but occasional springs that run intermittently at a few random seeps can be found within the landscape. There are a mix of rolling hills and moderately steep terrain varying in elevation from 3,700 to 5,200 feet. Vegetation at lower elevations includes grasses, forbs, and scattered shrubs with occasional juniper and ponderosa pine woodlands, with carpet-like areas of pine/fir colonization commonly occurring. Higher elevations and north facing slopes are dominated by ponderosa pine forest with a bunchgrass or fescue understory that commonly contains stagnant, old Douglas-fir seedlings.

Major activities in the Scratchgravel Hills encompass an 80-year period of mining developments, beginning with the placer operations of the 1860s to World War II. Sporadic attempts to recover nuggets continues to the present day.

Background

The Bureau of Land Management (BLM) is preparing a Recreation Area Management Plan (RAMP) for the area. The RAMP would provide direction only for the management of recreation use and resources within the Scratchgravel Hills planning area.

The RAMP would **not**:

- Prioritize projects for resources other than recreation
- Establish recreation fees
- Establish or modify land use allocations or make modifications to land tenure
- Establish any new regulations

A major component of the proposed RAMP (Proposed Action) is the construction of a new trail system (approximately 40 miles in length¹) that would be open to hiking, trail running, equestrian use, and mountain biking (including use by e-bike classes I, II, and III). Construction of the trail system would be completed in phases, as partnerships and/or funding becomes available. The trail system would be designed and constructed in accordance with the BLM's Guidelines for a Quality Trail Experience (GQTE). The proposed RAMP also includes improving each of the five existing trailheads and formalizing two disc-golf courses adjacent to the Norris and Tumbleweed trailheads.

¹ There are approximately 40 miles of existing primitive road that are closed to OHV use which is used as the current trail system. There are also 40 miles of new trail proposed to be constructed specifically for mountain bikers, hikers, and equestrians. The 40-mile number for both trail system is a coincidence; the routing for each is different. See Maps 1 and 2.

Purpose and Need

The BLM's 2009 Record of Decision and Approved Butte Resource Management Plan (RMP) allocated nine locations (including the Scratchgravel Hills) within the Butte Field Office as Special Recreation Management Areas (SRMAs), which are administrative units where a commitment has been made to emphasize recreation by managing for specific recreation opportunities, experiences and settings on a sustained, long-term basis.

Current recreation management actions in the Scratchgravel Hills SRMA are taking place without a detailed, long-term comprehensive plan in place. Recreation use in the Scratchgravel Hills is increasing and there is a need to guide future infrastructure development and provide management direction for recreation resources within the SRMA to address public demand.

The purpose of developing a RAMP for the Scratchgravel Hills SRMA is to provide long-term vision and commitment for improved day-use recreational activities, focusing specifically on hiking, horseback riding, mountain biking, and disc golfing within the area. By improving these opportunities, visitors to the SRMA would have adequate infrastructure to facilitate better recreational experiences, resulting in a highly valued quality-of-life recreational amenity within proximity to the urban center of Helena. The public has already approached BLM with ideas for improving the recreation opportunities in the Scratchgravel Hills. Specifically, in 2017, a detailed proposal (submitted by GDP Consulting for a group of 38 individuals consisting of area hikers, trail runners, equestrians, dog walkers, disc golfers, and mountain bikers) was received, asking BLM to consider constructing new trails within the SRMA to improve the area's recreational opportunities and experiences for hikers, bikers, equestrians and disc-golfers. The need for action is to avoid future conflicts and resource impacts by providing a trail system that can accommodate and support the current and anticipated future level of recreational use in this area

Decisions to be Made

The BLM will determine actions and strategies to include in the RAMP for managing recreation resources and human use within the Scratchgravel Hills SRMA, including:

- What type and level of visitor services, amenities, facilities, and developments will be provided and in what locations?
- To what extent will the Scratchgravel Hills road and trail system be modified, enhanced, and/or expanded?
- What limitations and restrictions, if any, are needed on certain recreation activities? For example: weed free horse-feed, seasonal trail closures, or infrastructure (e.g., parking) within the SRMA.

Conformance with Land Use Plan

The proposed action is in conformance with the goals and objectives of the Record of Decision (ROD) and Approved Butte Resource Management Plan (RMP) (April 20, 2009). Page 48 states:

GOAL RM1 – Provide a diverse array of recreational opportunities while maintaining healthy public land resources.

GOAL RM4 – Manage recreation opportunities to provide a sustained flow of local economic benefits and protect non-market economic values.

OBJECTIVE – The BLM will manage Recreation Opportunity Spectrum (ROS) classes for desired recreation opportunities, experience levels, facility developments, and other resource uses.

Relationship to Statutes, Regulations, and Orders

- **Archaeological Resources Protection Act (ARPA) 1979** – Protects archeological resources and sites on federally administered lands. Imposes criminal and civil penalties for removing archaeological items from federal lands without a permit.
- **Clean Air Act (CAA) 1990** – Provides framework for national, state, and local efforts to protect air quality.
- **Clean Water Act (CWA) 1987** – Establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water.
- **Endangered Species Act (ESA) 1973** – Directs Federal agencies to ensure their actions do not jeopardize threatened and endangered species.
- **Farmland Protection Policy Act (FPPA) 1981** – Intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.
- **Federal Land Policy and Management Act (FLPMA) 1976** – Defines BLM's organization and provides the basic policy guidance for BLM's management of public lands.
- **Federal Noxious Weed Act (Public Law 93-629-November 28, 1990)** - provides for the management of undesirable plants on federal lands
- **Fish and Wildlife Improvement Act of 1978** - authorizes the Secretaries of the Interior and Commerce to establish, conduct, and assist with national training programs for State fish and wildlife law enforcement personnel. It also authorized funding for research and development of new or improved methods to support fish and wildlife law enforcement.
- **Migratory Bird Act of 1918** – implements the convention for the protection of migratory birds between the US and Great Britain (acting on behalf of Canada). The statute makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed therein as migratory birds.
- **National Environmental Policy Act (NEPA) of 1969** – Requires the preparation of EAs or EISs on federal actions. These documents describe the environmental effects of these actions and determine whether the actions have a significant effect on the human environment.
- **National Historic Preservation Act (NHPA) 1966, as amended** – Provides for the management, protection and enhancement of historic buildings and places, as well as consultation procedures with the local State Historic Preservation Office.
- **Secretarial Order 3376 on Electronic Bicycles (e-Bikes)** – On August 29, 2019, the Secretary of the Interior issued Secretarial Order (S.O. 3376), which states, "This Order is intended to increase recreational opportunities for all Americans, especially those with physical limitations, and to encourage the enjoyment of lands and waters managed by the Department of the Interior (Department). This Order simplifies and unifies regulation of electric bicycles (e-bikes) on Federal lands managed by the Department and decreases regulatory burden." The S.O. defines the associated policy as "Consistent with governing laws and regulations:
 - a) For the purpose of the Order, "e-bikes" shall mean "low-speed electric bicycle" as defined by 15 U.S.C. § 2085 and falling within one of the following classifications:
 - i) "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;
 - ii) "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 miles per hour; and,
 - iii) "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 miles per hour.
 - b) E-Bikes shall be allowed where other types of bicycles are allowed; and
 - c) E-bikes shall not be allowed where other types of bicycles are prohibited.

The proposed RAMP is consistent with SO 3376 as it does not consider e-bikes differently than non e-bikes.

Public Involvement, Consultation, and Coordination

The BLM – Butte Field Office posted this project in the NEPA Register on BLM’s e-planning website on March 20, 2018: <https://go.usa.gov/xp9pD>. In addition, multiple press releases were issued notifying the public about this project, and of the formal scoping period dates of March 20, 2018 – May 1, 2018.

BLM received 120 comment letters/emails from various recreation user groups and general members of the public. The majority of comments submitted were in support of the overall project, including a detailed proposal from GDP Consulting and other members of the public, to construct a new, purpose-built trail system, formalize two disc-golf courses, and to improve associated infrastructure. A small number of comments voiced opposition to the proposal due to concerns related to recreation opportunities and experiences, travel management, access, private property, wildlife, soils, and weeds. These issues have been identified in the following section.

Resource Issues Identified for Analysis

The internal and external scoping process identified the following issues for analysis:

Issue 1 – Recreation Opportunities and Experiences:

1. How would the construction, use, and maintenance of a new trail system and disc golf courses in the Scratchgravel Hills SRMA impact recreation opportunities and experiences?

Issue 2 – Travel Management: Public Access Routes, Existing Travel Routes, and Bicycles (Traditional & E-Bikes):

1. How would the proposed action impact public access routes to, and existing roads and trails in, the Scratchgravel Hills SRMA?
2. How would the proposed action impact private property owners who are located directly adjacent to the Scratchgravel Hills SRMA?
3. What are the impacts of traditional bicycle and E-Bikes on other users in the Scratchgravel Hills SRMA?

Issue 3 – Wildlife:

1. How would construction and use of the new trail system in the Scratchgravel Hills SRMA impact big game habitat and use?
2. How would allowing only nonmechanized travel (hiking, equestrian use) on the existing 40 miles of trail affect big game?

Issue 4 – Soil Resources:

1. How would the proposed action contribute to erosion within Scratchgravel Hills SRMA?
 - a. How would erosion increase during construction activities?
 - b. How would increased use of constructed trails and areas by hikers, bikers, horseback riders, and disc golfers increase the occurrence of erosion?
2. How would the proposed action effect soils with specialized farmland classification designation?

Issue 5 – Weeds:

1. How would the construction and use of a trail system and the disc golf courses in the Scratchgravel Hills SRMA impact and disperse present and new invaders of noxious/invasive weeds?

Issue 6 – Cultural Resources:

1. How would the proposed action impact historic mining properties?

Resource Issues and Concerns Eliminated from Further Analysis

Scoping identified the following resource issues, which have been considered and eliminated from further analysis.

Development of an Advisory Committee under the Western Montana Resource Advisory Council

Stakeholder groups and advisory committees are often ideal venues for working out complex solutions among invested public land users with different interests. These groups can be especially helpful in wildland urban interface areas where there is both high interest and high use occurring. The BLM would have an interest in obtaining feedback on Helena urban trail systems and ways to reduce conflict, successfully engage volunteers, consider future management questions, etc. However, the establishment of such a group or committee would need to occur under the Western Montana Resource Advisory Council (RAC), which has not convened since 2017. Should the RAC convene in the future, and if interested, an advisory committee could be created.

Increased Erosion following Wildland Fire

Erosion following wildfire has occurred in the Scratchgravel Hills project area in the past and the potential for this to occur in the future continues to be of concern. Construction of the trail system may increase or decrease the potential for erosion to occur based upon layout and construction methods used. Construction of the proposed trails would follow the BLM's Guidelines for a Quality Trail Experience, limiting the potential for increased erosion to occur. Potential for erosion to occur following a wildland fire would generally be a result of site-specific soil characteristics and wildfire intensity rather than construction of the trail system. There would be no discernable difference in impacts between Alternatives.

Over the Snow (OTS) Use

The BLM Helena Area Travel Management Plan (TMP) was completed concurrently with the revision of the Butte Field Office's Resource Management Plan in 2009. The TMP stated that for the Helena Travel Planning Area, which includes the Scratchgravel Hills SRMA, "Cross-country snowmobile use will be allowed, as well as snowmobile travel on existing routes during the season of use (December 2 – May 15), snow conditions permitting." However, actual snowmobile use in the SRMA is virtually non-existent, due to a lack of adequate snow cover. Thus, impacts to other winter, non-snowmobile related recreation uses, are minimal. Moreover, in the past 10 years, the BLM Butte Field Office has received only 1 phone call inquiring about snowmobile use in the SRMA. Because of these factors, OTS use is not considered to be an issue that would be carried forward and analyzed. The current designation would remain in place and would not be changed in the RAMP.

Threatened and Endangered Species

The project area within the Scratchgravel Hills does not provide suitable habitat for any species listed as threatened, endangered, or proposed under the Endangered Species Act. This lower elevation, dry landscape does not provide the quality habitat needed for these species.

Chapter 2 – Proposed Action and Alternatives

Introduction

The expected outcome of this effort is a comprehensive Recreation Area Management Plan that would outline and describe appropriate recreational development locations, allowable activities, and associated management for the foreseeable future. Proposed actions would provide trails, facilities and infrastructure that cater to existing visitors and expand day use opportunities while minimizing environmental resource damage. Increasing site utilization through alterations, modifications, or expansion would meet the needs of present and expected future visitor demand. Chapter 2 describes overall management goals and objectives and describes each of the alternatives.

Management Goals and Objectives

Management Goals

- Provide a diverse array of recreational opportunities and experiences while maintaining healthy public land resources
- Manage recreation opportunities to provide a sustained flow of local economic benefits and to protect non-market economic values

Management Objectives

- Manage Recreation Opportunity Spectrum (ROS) classes of Rural and Roaded-Natural, and for desired recreation opportunities, experience levels, facility developments, and other resource uses
- Develop a management strategy that is reasonable, cost-effective, and implementable through partnerships
- Engage in collaborative land management by working in partnership with private and public entities, organizations, and recreational user groups
- Publicize available recreational opportunities by utilizing technological advances in marketing
- Use public information to effectively communicate rules, regulations, and relevant natural/human history
- Maintain and continue to provide for the current mix of dispersed recreation for trail and day-users within the SRMA that meets current and future demand
- Continue to provide and monitor dispersed day-use activities and take management actions to prevent resource damage to the recreation setting
- Reduce wildlife conflict and provide for wildlife security

Description of the Alternatives

The internal and external scoping process helped BLM identify issues associated with this planning effort. The issues brought forward helped formulate alternatives, identify appropriate design features, and analyze environmental effects of proposed management actions. These issues provide a basis for comparing the environmental effects of the proposed project and aid in the decision-making process. The goal of this planning effort is to effectively address these issues through a comprehensive recreation management strategy. Alternative A (No Action) was developed using existing management practices. Alternative B (Proposed Action) was developed based on National and State BLM direction and policy, existing conditions, and resource issues, which are discussed in more detail in Chapter 1 and after considering public scoping comments.

Alternative A: Continuation of Existing Management (No Action)

Alternative A (No Action) proposes a continuation of current management practices and reflects existing conditions, recreation management and operations within the SRMA, and provides background information against which to compare Alternative B (Proposed Action).

Under this alternative, no large-scale site development or alteration would occur. The Scratchgravel Hills SRMA would continue to be managed under current travel plans, guidelines, rules and regulations. Yearlong non-motorized mechanized cross-country travel would continue to be allowed. Specific management actions would only address the most severe resource concerns. The majority of the existing travel route system would continue to be managed as “Closed Yearlong” to Off-Highway Vehicles (OHV) and public motorized use (Map 1), including all classes of E-Bikes consistent with the 2009 Travel Management Plan (prior to 2009 the majority of routes in area were open to Off-Highway Vehicle travel). Only administrative and authorized motorized uses would be allowed in the SRMA. No new trails would be constructed, and no changes or improvements would be made to trailhead access. The undeveloped disc golf courses (Norris and Tumbleweed) would remain in place.

The current level of facilities and amenities would remain in place. No development or expansion of recreation opportunities would occur within the SRMA. Actions would mostly be custodial in nature, focusing on providing public health and safety.

Alternative B (Proposed Action)

Under Alternative B (Proposed Action), BLM proposes to develop a Recreation Area Management Plan for the Scratchgravel Hills Special Recreation Management Area. The RAMP would amend the BLM Helena Travel Management Plan (2009), which includes the Scratchgravel Hills area and currently allows cross-country mechanized (non-motorized) travel by bicycles. Under this alternative, cross-country mechanized travel by bicycles of any kind would be prohibited. The RAMP would also provide management prescriptions and direction for new trail construction and maintenance, existing travel route management, disc golf course improvements, and other infrastructure improvements, including trailhead improvements. Details for the RAMP are as follows:

New Trail System Construction

Under Alternative B (Proposed Action), BLM proposes to expand and improve existing trailheads, formalize two, disc golf courses, and construct a new trail system in the Scratchgravel Hills SRMA that is approximately 40 miles in length (final trail mileage could vary in length by up to 25%, and in exact location by 15 meters, due to variances in terrain and routing around sensitive resources), with some trails optimized for mountain biking (traditional and Class I, II and III E-Bikes). The proposed trail system (see Map 2) would also be open to hiking, trail running, and equestrian use, with the exception of the nine downhill portions in Trail Zone 10, which would only be open to mountain biking, (including E-Bikes, to allow for downhill travel at higher speeds with minimal conflict. New trails would be constructed utilizing mechanical equipment such as mini excavators, single-track machines and trail dozers, in addition to work completed by crews with hand tools. Final trail design, layout, construction, and maintenance would be completed in accordance with BLM’s Guidelines for a Quality Trail Experience. User-created trails would be inventoried and signed as closed. BLM receives very little funding, if any, for these types of projects. Therefore, BLM would utilize local partnerships to assist with obtaining funding for trail construction and maintenance.

Trail System User Experience Goals

Map 2 depicts the proposed trail system. Overall trail experience goals for this system would be:

Pedestrians

This is the broadest category of users in the SRMA, and includes walkers, hikers, and runners. Experience goals include exercise, solitude, wildlife viewing, and/or simply being in nature. An important component for this group is where the trail goes and how it gets them there.

Equestrians

Similar in expectation to pedestrian users, a key component for this group is where the trail goes and how it gets them there. In addition, trail surface can affect this group with most users preferring less technical surfaces with predictable footing.

Disc/Frisbee Golf (Folf)

The primary experience goal for this group would be game participation, with the trail system providing access to the course itself. Beyond that, users from this group also desire similar goals to pedestrian users. This proposal would integrate course design around shared use trails to minimize impacts.

Mountain Bikes (Including E-Bikes)

For many mountain bikers, the trail itself is the desired recreational experience. Although where the trail goes and how it gets them there are important, the way the trail is designed and built are paramount. Trail goals for this group would incorporate features that challenge mountain bikers physically without diminishing other user's experiences. Under this alternative, all bicycles including E-Bikes would be restricted to 10 miles per hour (mph) or less in slow zones, which are defined as areas approximately ¼ mile from any trailhead and marked with appropriate signing. Additional slow zones could be developed, as needed, in response to user conflict.

Proposed Trail Descriptions and User Experience Goals

Total proposed trail construction mileage is approximately 40 miles. Final trail locations and actual constructed mileage may vary by 15 meters and 25%, respectively, due to variances in terrain and the need to route around sensitive resources. As depicted in Map 2, the following describes each proposed trail (see Map 2) in detail.

BLM's Guidelines for a Quality Trail Experience document (2018) was utilized to identify and describe specific information for each proposed trail.

Table 1. Proposed Trail Descriptions

Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
1	Proposed	Easiest (Green Circle)	Shared Use	Two-Way	2.0
Trail Objective			Trail Narrative		
An easy route for all users that would create a readily accessible loop from the Head Lane trailhead. The trail would connect to another easy loop that would allow access to the Echo trailhead, as well as additional intermediate loops. It would provide users the opportunity to build either short or intermediate length trail experiences within an easy setting.			The trail would be optimized to appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. The trail would utilize terrain contours for most of its length, but wind through various terrain to maintain trail interest. The trail would transition for most of its length between forest and grassy hillsides.		

Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
2	Proposed	Easiest (Green Circle)	Shared Use	Two-Way	4.1
Trail Objective			Trail Narrative		
An easy route for all users that creates a readily accessible loop from the Echo trailhead. The trail would connect to another easy loop allowing access to the Head Lane trailhead, as well as additional intermediate loops. It would provide users the opportunity to build either short or intermediate length trail experiences within an easy setting.			The trail would incorporate some enhanced, natural features that would appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. The trail would cross rolling grasslands and utilize contours for most of its length, utilizing draws and coulees to offer some fun ups and downs.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
3	Proposed	Easiest (Green Circle)	Shared Use	Two-Way Clockwise suggested	3.0
Trail Objective			Trail Narrative		
Connects to a popular trailhead via a parking area loop and allows longer, less strenuous options for adventurous runners and hikers. Still easy terrain but connects to an intermediate loop.			This trail would incorporate more natural, enhanced features to appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. The trail would transition between grasslands and pine forest. It would utilize contours for most of its length, utilizing draws and coulees to offer some fun ups and downs.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
4	Proposed	More Difficult (Blue Square)	Shared Use	One-Way Clockwise	5.6
Trail Objective			Trail Narrative		
A more difficult trail for all users with intermediate length climbs and descents. Mountain bikers would find some challenging climbs, but also fun descents.			This trail would incorporate more natural, enhanced features to appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be narrow (24") with grades from moderate to steep. The trail transitions between grasslands and pine forest. The directional designation optimizes trail design and reduces the chance for user conflict.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
5	Proposed	Easiest (Green Circle)	Shared Use	Two-Way	8.6
Trail Objective			Trail Narrative		
An easy trail in the core of that project area that would circumnavigate the highest point in the Scratchgravel Hills SRMA. The trail would form a loop that effectively connects all the existing trailheads together, providing users with the longest possible loop in the system. The trail would follow contours over its length but would incorporate some moderate climbs and descents.			This trail would incorporate some natural, enhanced features that would appeal to pedestrians, equestrians, and mountain bikers. It would provide a slightly more technical trail tread as it traverses the rocky, east side of the SRMA, overlooking the Helena Valley. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. Additionally, this trail would allow users to experience all four directional aspects of the project area.		

Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
6a	Proposed	Most Difficult (Black Diamond)	Shared Use (Up) Single Use (Down)	Two-Way	1.8
Trail Objective			Trail Narrative		
This would be the most challenging trail in the proposed system for all users. It would include a strenuous climb for all users but would be even more challenging for mountain bikers. The trail would provide access to the area's high point, providing users with panoramic views of the entire Helena area.			The trail tread would be wider (30") than a normal single-track (usually 18-24"") to allow for easy passage for a full spectrum of users. It would provide access to climbs and descents from the highest point in the SRMA, utilizing moderate to steep grades through pine and fir forest. The trail would be accessed from every trailhead utilizing easier, lower elevation trails. The trail would be two-way with features designed to curb speed and allow comfortable and safe passage between ascending and descending users. The descent option would be "preferred use" for pedestrians and equestrians.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
6b	Proposed	Extremely Difficult (2 Red Diamonds)	Single Use Mountain Bikes	One-Way (Down)	1.5
Trail Objective			Trail Narrative		
This would connect to the most challenging trail in the proposed system, with directional design and both play and challenge features for mountain bikers.			The trail would be slightly wider at 24". It would descend from the highest point in the SRMA on moderate to steep grades. The main descent would be directional and have mountain-bike specific features constructed from natural materials, including jumps, drops and challenging tread sections. The trail would be directional with a "yield to downhill user" requirement.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
7	Proposed	Easiest (Green Circle)	Shared Use	Two-way	2.3
Trail Objective			Trail Narrative		
An easy route providing access from the John G Mine trailhead. It would offer an easy, stand-alone loop that showcases the SRMA's more open, hilly terrain with a connection to the larger system. The trail would follow contours over its length but would incorporate some moderate climbs and descents.			This trail would incorporate some "flow" features and a few challenging tread sections to appeal to mountain bikers. It would provide scenic views of the north valley, a high point, and encourage use of the project area by nearby residents. The trail tread would be wider (30") than a normal single-track (usually 18-24"") to allow for easy passage for a full spectrum of users.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
8	Proposed	Easiest (Green Circle)	Shared Use	Two-way	2.3
Trail Objective			Trail Narrative		
This route would provide access to one of the SRMA's disc golf courses (Norris area) as well as a mid-valley connection to the core of the proposed trail system. Once visitors trail into the system, they would be able to choose moderate-to-long loops of varying physical and technical difficulties. The trail would present moderate to steep climbing in connecting to other routes.			The trail tread would be wider (30") than a normal single-track (usually 18-24"") to allow for easy passage for a full spectrum of users. This route would climb through pine-covered forest with rocky terrain as it ascends to the main, core loop (route #5) of the trail system.		

Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
9	Proposed	Easiest (Green Circle)	Shared Use	Two-way	1.3
Trail Objective			Trail Narrative		
This route would be the easiest of the proposed system for all users. Accessed immediately from the trailhead it would provide a short loop on level terrain.			The trail tread would be smooth and wide for comfortable, stable footing. This trail would travel through open grasslands and would offer a very short, easy loop for families with small children and dog walkers.		
Route ID	Status	Difficulty	Style	Preferred Direction	Distance (Miles)
10	Proposed	Easiest (Green Circle) to More Difficult (Blue Square)	Single use options for mountain bikes and pedestrians	One-Way	7.5
Trail Objective			Trail Narrative		
This area would contain a series of relatively short trails adjacent to the main parking area at the Head Lane trailhead. It would be designed to provide a skills and play area for all ages and ability levels of mountain bikers. There would also be a pedestrian "preferred use" option to provide an easy loop opportunity from the Head Lane trailhead.			This series of 9 short, directional trails (see Map 3) would utilize several rocky ravines and low grade, undulating terrain to offer jump lines, drops, and flow features with easy access from the Head Lane trailhead. A connecting trail from route #1 would allow users to "session" the trails with a short, easy ascent. Route 6b would feed into these trails, allowing a continuous descent to the trailhead from the SRMA's highest point.		

Note: Actual trail system construction would not commence until a final onsite review of the flagged route by the respective BLM resource specialists is conducted to allow for re-routing around sensitive resources.

Disc/Frisbee Golf (FOLF) Course Description

Two disc-golf courses currently exist in the Scratchgravel Hills SRMA and are adjacent to the Tumbleweed and Norris trailheads. Neither course was formally constructed or organized. Under Alternative B (Proposed Action), BLM proposes to partner with local disc golf clubs/groups to professionally develop the Tumbleweed course, which would include formal tee boxes and holes (i.e. baskets). BLM would limit the total course area to 40 acres. The Norris Trailhead course would also be formalized, but to a lesser degree than Tumbleweed, by requiring tee boxes and holes (i.e. baskets). However, the tee boxes could be moved around in the 40-acre area to provide new course layouts at agreed-upon intervals.

Pet Management

To reduce user conflicts and improve visitor experiences in the SRMA, BLM proposes to:

- Require that all dogs must be leashed for a minimum of 100 yards from any of the five existing trailheads
- Require that any dogs not under obvious verbal control be leashed at all times within the SRMA
- Work with local user groups and volunteers to develop a dog waste bag program (i.e. waste bag distribution stations could be installed at each of the trailheads)

Private Property

To reduce impacts to private property owners who live adjacent to the SRMA, BLM proposes to:

- Clearly post comprehensive map and trailhead information at each kiosk, listing SRMA rules, regulations, trail etiquette, penalties, and law enforcement contact information
- Work with user groups and adjacent private property owners to delineate BLM and private property boundaries in problem areas using signage and, where appropriate, fencing, or other barriers
- Design the proposed trail system to encourage users to stay on designated routes

Public Road Access and Maintenance

To help reduce the financial and physical impacts of public access to the SRMA, BLM proposes to:

- Increase BLM maintenance frequency as resources allow
- Work with Lewis and Clark County and the Montana Department of Transportation (MDOT), to develop solutions for increased short and long-term public access road maintenance that is mutually beneficial to homeowners and public land users
- Work with local partners and Lewis and Clark County to apply for, and utilize, Federal Lands Access Program (FLAP) funds to develop long-term maintenance solutions for public access roads to the SRMA

Shooting/Safety Zones

To reduce confusion regarding weapons restrictions and general use in the SRMA, BLM proposes to:

- Clearly post relevant information, including the current weapons restrictions found in the Federal Register, Volume 65, Number 16, which states: "Under authority of 43 CFR 8364.1 and as a result of the approval of the Scratchgravel Hills Cooperative Agreement on July 11, 1985, the following restrictions for the use of the Scratchgravel Hills, adjacent to Helena, Montana, became effective August 15, 1985:
 1. The use, possession afield, or discharge of all firearms is prohibited year-round in the Scratchgravel Hills, **except during such big game seasons** as may be established by the Montana Department of Fish, Wildlife, and Parks... Principal Meridian, Montana These regulations apply to public lands in: T. 11 N., R. 4 W., Secs. 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 33, 34, 35, and 36. T. 10 N., R. 4 W., Secs. 1, 2, 3, 4, and 5. The purpose of these restrictions is to minimize hazards to visitors and surrounding residences, and to minimize the possibility of wildfire. The public lands within the designated area will remain open to other resource and recreation uses unless otherwise restricted. Penalties: As prescribed under the Federal Land Policy and Management, 43 USC Section 1733 (a). Violation is punishable by fines and/or imprisonment under 43 CFR 8360.0–7. EFFECTIVE DATE: These management restrictions will go into effect upon publication in the Federal Register and will remain in effect until rescinded or modified by the authorized officer..."
- Define a shooting-free safety zone of 100 yards around key access points and adjacent to all travel routes in the SRMA, in accordance with § 8365.2-5.

Trailhead Improvements

Each of the five existing trailheads (Echo, Head Lane, John G. Mine, Norris, and Tumbleweed) could be doubled in size to accommodate additional parking. Larger, or additional, kiosks could also be installed to depict relevant information about area rules and regulations. Vault toilets could be installed at each of the five trailheads. Kiosks and vault toilets would be installed on, or directly adjacent to, previously disturbed areas, such as the existing parking areas. These efforts would be prioritized for the most heavily used trailheads first: Head Lane and Tumbleweed. BLM funding for this type of work is often difficult to obtain. Therefore, the timing of installation and funding of these projects would be dependent on developing a formal partnership with a local user group to assist BLM with acquiring funding and helping with installation.

Travel Management – Existing Travel Routes

There are currently approximately 40 miles of existing travel routes (roads, primitive roads, and trails) in the Scratchgravel Hills SRMA (see Map 1). Under Alternative B (Proposed Action), BLM proposes to leave the existing travel route prisms (road and trail beds) in place for continued administrative and authorized motorized access uses. For travel routes that are not required for continuous administrative and authorized motorized access, route obliteration would not occur. Instead, these routes would be signed as closed to public mechanized use and be made available for non-motorized uses, such as hiking and equestrian. For routes not utilized by the public, they would be allowed to re-vegetate, naturally. In some cases, routes would be re-seeded to encourage vegetation growth. If the newly constructed trail system is approved and completed, mechanized use, including mountain biking, would not be allowed on existing routes, but instead would be restricted to the new trail system.

Weed Management

To reduce noxious weeds in the SRMA, BLM proposes to:

- Increase enforcement of the Montana County Weed Control Act (Title 7, Chapter 22 Part 21)
- Work to establish Cooperative Weed Management Areas
- Continue weed control efforts through Cooperative Management Assistance Agreements and other management implementation

Law Enforcement

To reduce incidents of criminal behavior in the SRMA, BLM proposes to:

- Increase BLM Law Enforcement presence for the SRMA, as time and resources allow
- Work with the city, county, and state law enforcement agencies to develop increased law enforcement coverage for the SRMA
- Post signage at each trailhead kiosk that clearly defines violations, penalties, and law enforcement contact information
- BLM would monitor trailhead conditions and track incidents of vandalism or public nuisance to determine if additional restrictions are warranted.

Table 2. Comparison of the Alternatives

Comparison of the Alternatives		
Recreation Component	Alternative A: No Action Current Management	Alternative B: Proposed Action Proposed RAMP
Existing Routes. Approximately 40 miles unmaintained (see Map 1)	Open to motorized vehicle traffic to the 5 existing trailheads. Interior routes closed to public OHV use, except for administrative and authorized uses). Foot, horse, and traditional bike traffic allowed.	Open to motorized vehicle traffic to the 5 existing trailheads. Interior routes remain closed to public motorized travel (except for administrative and authorized uses). Routes would also be closed to all non-motorized mechanized travel, including all traditional mountain bikes and E-Bikes. Only foot and horse traffic would be allowed on existing routes.
New trail construction. (see Maps 2 & 3)	None.	Approximately 40 miles of new mountain bike-optimized trails would be constructed. All mountain bikes including Class I, II, and III e-bikes up to 750 watts and 1 hp would be allowed. The new trail would be open to foot, horse, and all mountain bike use, except for 9 miles of downhill trails reserved only for mountain bikes due to safety concerns.
Trailhead improvements	Map, kiosk, and parking lot.	Additional information kiosks and signage regarding rules and contact information. Existing parking lot would be expanded, and vault toilets could be installed.
Disc/Frisbee Golf (Folf)	Two informal disc-golf courses present at Tumbleweed and Norris trailheads.	Partner with local clubs to fund and professionally develop the courses near Tumbleweed and Norris trailheads. Limit size to 40 acres for each course.

Comparison of the Alternatives		
Recreation Component	Alternative A: No Action Current Management	Alternative B: Proposed Action Proposed RAMP
Pet management	Minimal. Pet owners can be cited if creating a public nuisance.	Required that all dogs be leashed within 100 yards of the 5 trailheads. Aggressive dogs must be leashed at all times. Develop a dog waste bag program through partnerships. Install waste bag stations at trailheads.
Private property interface	Minimal signage and public involvement.	Post comprehensive trailhead information at each kiosk, listing rules, regulations, trail etiquette, penalties, and law enforcement contact information Delineate BLM and private property boundaries in problem areas using signage and, where appropriate, fencing or other barriers. Design trail system in manner that encourages users to stay on designated route.
Public road access maintenance	Maintained at a minimal level by BLM for recreation purposes. Echo Drive, Tumbleweed Drive, John G Mine Rd., Norris Rd., and Head Lane.	Increase BLM road maintenance frequency. Work with Lewis and Clark County, the Montana DOT, and the Western Montana RAC (if convened) to increase short and long-term public access road maintenance for homeowners and public land users.
Shooting/Safety Zones	Since 1985 shooting has been prohibited except during big game season as prescribed by MT FWP.	Retain existing shooting restrictions. Plus, post signs to define the yearlong shooting restriction within 100 yards of each trailhead.
Law Enforcement	As needed by local BLM Ranger and County Sheriff.	Increase law enforcement coverage through funding and partnerships. Post information at each trailhead kiosk that clearly defines violations, penalties, and law enforcement contact information Work with local law enforcement and user groups to consider dusk to dawn closure at trailheads to discourage noise and dumping.
Long term public involvement	As issues arise.	Work with representatives from interested user groups, local service providers, and homeowners.

Alternatives Considered but Eliminated from Detailed Analysis

The following alternatives were considered for this proposal.

Campground Development

The development of a formal campground, or multiple new campgrounds, in the Scratchgravel Hills was suggested by members of the public. Considering the proximity to Helena and the number of nearby residential structures, the BLM-administered public lands in the Scratchgravel Hills are not large enough (approximately 5500 acres) nor remote enough to warrant the placement of a fully developed campground, or multiple campgrounds. Moreover, campgrounds can be very expensive to construct and maintain. The BLM does not possess the funding and has not been approached by any potential partners willing to provide funding, to construct and maintain a developed campground, or multiple developed campgrounds. Therefore, this issue has been eliminated from further analysis.

Public Off-Highway Vehicle Use for Vehicles over 750 watts or 1 Horsepower

Reopening existing, or developing new, travel routes (roads, primitive roads, or trails) in the Scratchgravel Hills SRMA for off-highway use (vehicles over 750 watts or 1 horsepower) by the general public was raised by external sources (area user group and one individual). The BLM Butte Field Office's 2009 Helena Travel Management Plan closed most routes in the Scratchgravel Hills SRMA to public OHV use. The OHV route closures have now been in effect for 10 years. The BLM does not plan to revisit this issue at this time, and thus developing new, or re-opening existing travel routes to this type of OHV use has been eliminated from further analysis.

Public Trail Access from Private Property

The current configuration of five trailhead/parking areas provides adequate and reasonable public access to the SRMA. However, user created and/or maintained trails exist on public land that originate/terminate on private property. None of these trails were evaluated or authorized in the Helena Travel Management Plan (2009) and were not professionally designed/constructed. If trail access is desired from private lands, it is up to neighbors and neighborhoods to arrive at a solution that can be formally presented to the BLM.

Sunny Vista Access – The question of legal access to BLM-administered public land in the Scratchgravel Hills SRMA, and the development of a new trailhead or public access point, via the Sunny Vista road (a subdivision route near the Head Lane Trailhead) was raised by members of the public. Because there is much confusion and conflicting information surrounding the legal status of access to BLM-administered public land via a sub-division easement from the Sunny Vista Road, and because this access point is located so close to the Head Lane Trailhead, BLM has determined that developing additional access in this area is not currently warranted. This issue may be analyzed further in the future if the situation warrants.

Chapter 3 – Affected Environment & Environmental Consequences

General Setting

Located less than a 15-minute drive from the Montana State Capitol Building in Helena, the Scratchgravel Hills area is important to residents of the Helena Valley as a place to recreate near home. The planning area is currently accessed by five different trailheads: Echo, Head Lane, Tumbleweed, Norris, and John G. Mine. Evidence of man-made modifications (roads, mining activities, utilities, buildings, houses, recreation sites, trails) is visible from both private and public lands within, or in the vicinity of, the planning area. The majority of recreation opportunities in the SRMA are currently undeveloped. As an area with southern exposure, it loses snow before other developed trail systems in the area and is an important recreation area during late spring and fall.

Resource Issue 1 – Recreation Opportunities and Experiences

1. How would the construction, use, and maintenance of a new trail system and disc golf courses in the Scratchgravel Hills SRMA impact recreation opportunities and experiences?

Affected Environment

Visitors come to the Scratchgravel Hills SRMA for a variety of recreation activities such as hiking, mountain biking, disc-golfing, equestrian use, and nature viewing. Undesirable and unauthorized activities, including off-trail use by mountain bikes, occur throughout the project area due to a lack of structured and desired opportunities. Current, exact, visitor use data is unknown, due to the lack of road/trail counters in the area. However, BLM estimates 30,000 people visit the SRMA annually.

The Scratchgravel Hills SRMA's proximity to one of Montana's largest population centers makes it a convenient recreation opportunity for residents of not only Helena, but also the greater Helena valley. The existing trail system is currently accessible from five different trailheads: Echo, Head Lane, John G Mine, Norris, and Tumbleweed.

The existing trail system is popular with hikers, disc golfers and mountain bike users and, to a lesser degree, equestrians. The moderate amount of use throughout this area has led to an unsustainable road and trail system that receives virtually no annual maintenance. Thus, many of these routes have begun to revegetate.

Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued [Secretarial Order 3376](#) for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. E-bike use can be authorized after NEPA analysis and included as an authorized use in the approved RAMP regardless of their vehicle classification.

Environmental Impacts - Alternative A (No Action)

Under this alternative, no structured recreation opportunities would be provided within the Scratchgravel Hills SRMA. However, visitor use is expected to increase due to overall population growth. User conflicts would also be

expected to increase due to the lack of a clearly defined trail system. User experiences would also be degraded due to the lack of a clearly defined trail system. Resource degradation could also occur because users would be forced to utilize the existing, non-sustainable route system.

Cumulative Impacts

The Scratchgravel Hills SRMA has seen a variety of activities over the past century, including the development of primitive roads, development of adjacent private lands, noxious weed management, vegetation treatments, wildfire, recreation, mining, livestock grazing, and hunting. It is expected that the area would continue to see these types of activities in the future. High levels of use would likely continue to increase on the nearby South Hills Recreation Area, managed by the Helena National Forest, due to the presence of a designed, sustainable trail system. Visitor experiences could be degraded in the South Hills due to a lack of similar opportunities nearby.

Environmental Impacts - Alternative B (Proposed Action)

Within the Scratchgravel Hills SRMA, new designated recreation opportunities would include approximately 40 miles of new trail construction, formalization of two disc-golf courses, and increased opportunities for the public to engage in activities that enhance well-being, health, and challenge opportunities. Recreational visitation would increase with the enhanced recreation opportunities outlined in the proposed action. Increased promotion (word of mouth, social media, etc.) of the recreation area and BLM's management activities could also lead to increased visitation to the area.

Overall, Alternative B would enhance and increase recreational opportunities for each of the various user groups that use the Scratchgravel Hills SRMA. Trail system development (including the creation of loops and focusing mechanized use off existing roads and trails) would provide a higher quality experience for hikers, mountain bikers disc golfers, and equestrian users.

Public access would be improved under this alternative. Creating approximately 40 miles of new, purpose-built trails, and two disc-golf courses would greatly increase access for most uses. Additionally, route signage and maintenance would improve user orientation and access on roads and trails. These measures would help limit route proliferation and would provide a well-defined transportation network that would benefit all users.

Creating an additional 40 miles of optimized trails would increase overall recreation opportunities for hiking, trail running, equestrian, mountain biking, and disc golf user groups. As the new trail system sees increased overall use, hikers and equestrian users would have the ability to seek quieter, less crowded experiences off the designated trail system. In contrast, all mountain bikers (traditional and E-Bikes) would be restricted to the newly created, purpose-built trail system, which would improve overall experiences for most users.

Cumulative Impacts

Creating more recreation opportunities within the SRMA could potentially increase tourism-related revenue to the surrounding communities of the greater Helena Valley. A well-planned, sustainable, and purpose-built trail system would provide outlets for nearby residents to recreate. Proposed activities within the planning area would generally create beneficial impacts for recreational users. A new trail system would also reduce the pressure on the nearby South Hills trail system by offering a new and defined recreation opportunity in very close proximity to the city of Helena and the greater Helena Valley.

Besides trails located within city limits, and on the Helena National Forest (i.e. South Hills), the Helena Valley has very few defined recreational trail systems in a wildland setting. BLM manages several areas in the valley, many of which contain roads and trails, but most were user-created, and thus were not sustainably constructed and were often created to provide the most direct route from point A to B. Similarly, there are very few, formally developed disc-golf courses in the valley. The proposed actions of developing a new, purpose-built trail system and formalization of two, disc-golf courses, would greatly improve recreation opportunities and experiences near one of the largest population centers in Montana.

Resource Issue 2 – Travel Management: Public Access Routes, Existing Travel Routes, and Bicycles (Traditional & E-Bikes)

1. How would the proposed action impact public access routes to, and existing roads and trails in, the Scratchgravel Hills SRMA?
2. How would the proposed action impact private property owners who are located directly adjacent to the Scratchgravel Hills SRMA?
3. What are the impacts of traditional bicycle and E-Bikes on other users in the Scratchgravel Hills SRMA?

Affected Environment

The Off-Highway Vehicle (OHV) area designation for the SRMA is ‘Limited’ to designated routes and currently contains approximately 40 miles of primitive roads, which are the most common route type on BLM-managed lands. Primitive roads are routes that are generally used by four-wheel drive or high clearance vehicles. However, in the Scratchgravel Hills SRMA, the majority of these routes are closed to public motorized use (BLM Helena Valley Travel Management Plan – 2009). Primitive roads do not normally meet any BLM road design standards. These routes are currently open to all non-motorized uses.

Currently, the Scratchgravel Hills SRMA is accessed by 5 trailheads along the perimeter on the west, south and east sides. The overall access to the area is sufficient. Currently, BLM maintains portions of each of the 5 access roads on an annual basis.

The Scratchgravel Hills SRMA is almost completely surrounded by private property, with dozens of landowners being located directly adjacent to the area.

E-Bikes are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are not allowed on existing routes in the Scratchgravel Hills SRMA that are closed to OHVs.

Environmental Impacts - Alternative A (No Action)

Existing travel route prisms (road and trail beds) would remain in place for continued administrative and authorized motorized access. However, administrative and authorized use occurs infrequently, perhaps several times per year and impacts users and resources minimally. For travel routes that are not required for periodic administrative and authorized motorized access, route obliteration would generally not occur. Instead, these routes would be signed as closed to public OHV use, and allowed to re-vegetate, naturally. In some cases, routes would be re-seeded to encourage vegetation growth. Undefined route systems are often the cause of off-route travel because use of the system is not clear, or the route/routes are not meeting user expectations. This could result in increased route proliferation.

Public access routes to/from the area trailheads would continue to be maintained by BLM as time and fiscal resources allow. If the maintenance schedule is not adequate, it could result in unsatisfactory access road conditions for area users and residents.

Private property owners living adjacent to the SRMA could continue to experience trespassing due to the lack of a defined and optimized trail system, which generally encourage users to remain on designated routes because they provide high quality opportunities and experiences.

Under this alternative, E-Bikes would not be allowed unless, and until, the 43 CFR § 8340.0-5 regulation is changed. If the regulations are changed, it is possible that Class I, II, and III E-Bikes could be allowed on existing travel routes in the Scratchgravel Hills SRMA. If this change occurs, it is expected that overall area use would increase. User conflicts would also be expected to increase due to the lack of a clearly defined trail system. User experiences would also be degraded due to the lack of a clearly defined trail system. Resource degradation could also occur because users would be forced to utilize the existing, non-sustainable route system.

Cumulative Impacts

The Scratchgravel Hills SRMA has seen a variety of activities over the past century, including the development of roads, development of adjacent private lands, noxious weed management, vegetation treatments, wildfire, recreation, mining, livestock grazing, and hunting. It is expected that the area would continue to see these types of activities in the future. High levels of use would continue on the nearby South Hills Recreation Area, managed by the Helena National Forest. Visitor experiences would continue to be degraded in the South Hills due to a lack of similar opportunities nearby.

Environmental Impacts - Alternative B (Proposed Action)

Under this alternative, public access would generally be improved. While approximately 40 miles of existing travel routes would remain closed to public OHV vehicular access, developing approximately 40 miles of new, purpose-built trails would increase access for hiking, equestrian and mountain biking use. Additionally, route signage and maintenance would improve user orientation and access on roads and trails. These measures would help limit route proliferation and would provide a well-defined travel network that would benefit the majority of users.

The proposed action would authorize the construction of a designated, purpose-built, trail system, offering users a variety of experiences and opportunities in a setting specifically designed to meet those user experiences. This would reduce overall impacts, including user conflicts and related problems, and additional user-created trails.

The construction and use of a new 40-mile, purpose-built trail system and associated infrastructure would create increased use of the public access routes to, and on existing roads and trails in, the Scratchgravel Hills SRMA. This increase in use on the public access routes to the area could create additional erosion, traffic, and dust impacts. The routes would, in turn, require more maintenance than is currently occurring. BLM would increase maintenance frequencies as resources allow. BLM would also work with Lewis and Clark County and the Montana Department of Transportation (MDOT) to develop solutions for increased short and long-term public access road maintenance that is mutually beneficial to homeowners and public land users. BLM would work with local partners and interested user groups to apply for, and utilize, Federal Lands Access Program (FLAP) funds to develop long-term maintenance solutions for public access roads to the SRMA. Each of these actions would reduce negative impacts to area residents located near these access routes.

Besides occasional trespass issues, the clearly delineated new trail system would be purpose-built, which would increase most users' desire to stay on designated routes. Quality trail systems inherently reduce conflicts with private property because they offer the respective user a quality recreation experience. Moreover, BLM would clearly post comprehensive map and trailhead information at each kiosk, listing SRMA rules, regulations, trail etiquette, penalties, and law enforcement contact information. BLM would also with adjacent private property owners to delineate BLM and private property boundaries in problem areas using signage and, where appropriate, fencing or other barriers, as funding allows. Each of these actions would reduce negative impacts to adjacent private property owners.

Under this alternative, traditional bicycles and Class I, II, and III E-Bikes would be allowed only on the newly created trail system. E-Bikes are currently defined as motorized vehicles (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued [Secretarial Order 3376](#) for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. E-bike use can be authorized after NEPA analysis and included as an authorized use in the approved RAMP.

To properly address E-bikes, a route-by-route evaluation of their use was completed for this alternative, in accordance with 43 CFR § 8342.1 – Designation Criteria (see Appendix 5). During this evaluation, BLM's Interdisciplinary Team was generally able to determine that the proposed trail system would be:

- (a) Located to minimize damage to soil, watershed, vegetation, air, or other resources - prior to final trail construction, all trails would be flagged, and BLM resource specialists would inspect the proposed trail locations to provide final adjustments and clearances based on resource concerns.
- (b) Located to minimize harassment of wildlife or significant disruption of wildlife habitats. There are no endangered or threatened species located in the project area. In addition, 1001 acres of wildlife "leave" areas were included in the proposed action.
- (c) Located to minimize conflicts between E-Bikes and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, considering noise and other factors.
- (d) Not located in officially designated wilderness areas or primitive areas. The Scratchgravel Hills do not contain any wilderness areas, wilderness study areas, or primitive areas.

Under this alternative, Class I, II, and III E-Bikes would be allowed only on the proposed new trail system in the Scratchgravel Hills SRMA. Mechanized use, including both traditional bicycles and E-bikes, would not be allowed on the existing road and trail network.

By allowing all 3 classes of E-Bikes on the proposed trail system, the potential to improve public access by allowing more visitors to experience, and travel further into, the SRMA would be realized. However, increased speeds associated with E-Bikes, especially class II and III versions, has the potential to increase negative social impacts. Specifically, on steeper routes, E-Bikes could potentially travel uphill at higher rates of speed than what other users are accustomed to, thus causing unexpected encounters and conflicts with hikers and equestrian users. However, it is important to note that hikers and equestrian users have the most freedom of any user groups on BLM-managed lands. They are generally allowed to travel anywhere, including on the existing 40 miles of roads and trails, off-trail/cross-country and in wildlife "leave" areas where no new trail construction is being proposed. Thus, they would have a greater ability to reduce conflict by utilizing the additional routes and areas based on the amount of use on a particular day. High speeds by class II and III E-Bikes could also be a problem near each of the five trailheads. However, all bicycles, including E-Bikes, would be restricted to 10 miles per hour (mph) or less in slow zones, which would be defined as areas approximately ¼ mile from any trailhead and marked with appropriate signing. Additional slow zones could be developed, as needed, in response to user conflict.

Overall, the use of E-Bikes in the Scratchgravel Hills SRMA could create both negative and beneficial impacts. Although studies have shown that impacts from class 1 E-Bikes are not significantly different than those from traditional mountain bikes (IMBA, 2015), some hikers, equestrians and traditional mountain bikers may not be in favor of allowing E-Bikes. This could be particularly true for class II and III E-Bikes because of their ability to travel at higher rates of speed than traditional mountain bikes, especially when traveling near trailheads and uphill. Therefore, this could result in increased user conflicts including safety concerns with hikers, traditional mountain bikers, and equestrians, depending on behavior exhibited by individual users.

Cumulative Impacts

Creating more recreation opportunities within the planning area could potentially increase tourism-related revenue to the surrounding communities of the greater Helena Valley. A well-developed, purpose-built trail system would provide outlets for nearby residents to recreate. The trail system would be recognized as a place to hold permitted events. Proposed activities within the planning area would have beneficial impact on recreational users. A new trail system would also reduce the pressure on the nearby USFS South Hills trail system by offering a new and defined recreation opportunity in very close proximity.

Resource Issue 3 – Wildlife: Big Game Habitat

1. How would construction and use of the new trail system in the Scratchgravel Hills SRMA impact big game habitat and use?
2. How would allowing only nonmechanized travel (hiking, equestrian use) on the existing 40 miles of trail affect big game?

Affected Environment

The wildlife habitat found within the urban interface areas of the Scratchgravel Hills SRMA is dominated by grasslands of bluebunch wheatgrass with a sagebrush component. There are also dry forests with a mature ponderosa pine or Douglas fir overstory and a grass understory. Approximately 3,200 acres within the Scratchgravel Hills is grassland/shrubland and 2,300 acres is dry forest habitat. There are no live streams in the area and riparian habitat is extremely rare. This riparian habitat, although rare, can be found at occasional springs that run intermittently and at a few random seeps found throughout the landscape. There are a mix of rolling hills and moderately steep terrain varying in elevation from 3,700 to 5,200 feet. Vegetation at lower elevations includes grasses, forbs, and scattered shrubs with occasional juniper and ponderosa pine woodlands, with carpet-like areas of pine/fir colonization commonly occurring. Higher elevations and north facing slopes are dominated by ponderosa pine forest with a bunchgrass or fescue understory that commonly contains stagnant, old Douglas-fir seedlings.

Residential development around the Scratchgravel Hills has grown dramatically in the past 50 years from the 300 residential homes once found in the area in 1984, to well over 1,000 homes and continued ongoing development. The Scratchgravel Hills are an island of undeveloped hills that provide some refuge for various wildlife species surrounded by an area experiencing steady residential growth. The current conditions found within the Scratchgravel Hills SRMA are a result of these developments and have resulted in fragmentation and a substantial loss of wildlife habitat, which has created a long-term disturbance. Although the Scratchgravel Hills and the surrounding area does provide some refuge for various wildlife species, the quality of the habitat is greatly diminished from what it once was. Recent and anticipated subdivision growth on private lands would lead to more road construction and surface disturbance adding to an already fragmented landscape. More development would reduce big game habitat and, in some cases, cause animals to move into different locations.

There has been a variety of disturbances within the Scratchgravel Hills that have degraded wildlife habitat and in return affected wildlife directly and indirectly. These disturbances include historic mining activity, development of roads, unauthorized off-road motorized and non-motorized travel, timber harvest, noxious weed infestation, building of power lines, some livestock grazing, and recreational use.

Noxious weeds are well established and spreading in the SRMA. These noxious weeds displace grasses and forbs that wildlife depend on and degrade their habitat. The BLM has a weed management program in place, but open roads and development adjacent to BLM-administered public lands and the substantial amount of public use this area receives still allows for the spread of noxious weeds.

Historically, the Scratchgravel Hills would have provided habitat for a wide variety of wildlife species. This small area of BLM-managed land now provides less habitat than it once did due to the adjacent development of private lands, mining activities, addition of roads (although they are now closed to the public), and increased recreation use. There are an estimated 40 miles of existing routes found within the Scratchgravel Hills. This majority of the existing travel route system was designated in the 2009 BLM Helena Travel Management Plan and is now managed as "Closed Yearlong" to public OHV use. Only occasional administrative and authorized OHV uses for vegetation treatments, weed control, grazing, and small-scale mining are allowed in the SRMA. This level of ongoing use results in a low level of impact to wildlife resources and has less of an impact on most wildlife than "open" routes. Roads and development within, and adjacent to, the analysis area can disturb wildlife along with fragmentation and loss of habitat. Roads are associated with nearly every type of activity that has the potential to occur in the Scratchgravel Hills including vegetation treatments, timber salvage, mining, access to private lands (ROWs), wildland fire mitigation treatments, fire suppression, powerline corridors and recreation. In general, roads have negative impacts on wildlife and ecosystems. Road impacts on wildlife and ecosystems can include modification of animal behavior, disruption of movement patterns, habitat fragmentation, and an increase use of areas by humans. Most of these roads have been left to naturally revegetate.

The Scratchgravel Hills do provide a refuge and remnants of habitat for big game wildlife species. The most common species found in the SRMA are elk, mule deer, pronghorn, and white-tailed deer. Other species that may be found or occasionally seen in the area include moose, bobcat, black bear, and mountain lion. The most important habitat areas for the common species are used for winter range, security, and calving. Most of the SRMA is considered general range for all these species. Species location information is largely obtained from Montana Fish, Wildlife, and Parks (FWP) GIS layers and Montana Natural Heritage Program information provided to BLM. This area is also managed by the FWP as open to big game hunting with a weapons restriction. Although the SRMA does supply limited winter habitat for these common big game species it is not classified as winter range. However, weather characteristics influence the actual winter use areas by ungulates in any given year.

Although the density of the forest stands does provide hiding cover for mule deer, elk, and white-tailed deer, the Scratchgravel Hills do not contain security habitat. Security habitat, as defined by Hillis et al. 1991, must be a nonlinear block of land ≥ 250 acres in size and $\geq \frac{1}{2}$ mile from any open road. Due to the configuration of the surrounding private lands and administrative access roads, the SRMA lacks the larger unroaded areas needed to be considered security habitat. The limited amount of hiding cover found in the SRMA is currently fragmented by the existing roads found in the SRMA. Hiding cover, as defined by Thomas et al. 1979, was "vegetation capable of hiding 90 percent of a standing adult elk from the view of a human at a distance equal to or less than 61 meters (200 ft)." Currently, it is estimated that there are 1,501 acres of hiding cover in the SRMA. Past vegetation treatments have also reduced the total amount of hiding cover due to the thinning of forests and increase of line of sight. No recognized calving areas are found within the SRMA.

Critical fawning and foraging habitat for pronghorn antelope was historically located in the southwest section of the Scratchgravel Hills. Portions of the Helena area, including the Scratchgravel Hills which provides some of the

remaining habitat, still provide limited pronghorn habitat. Due to the extensive amount of development, the Helena area no longer provides the high-quality habitat for this species that it once did.

Timber treatments in the form of fuels reduction were focused around the Wildland Urban Interface (WUI) which is defined as “The line, area or zone where structures and other human developments meet or intermingle with undeveloped wildland or vegetative fuels”. These treatments totaled 1,191 acres spread across BLM-managed lands in the Scratchgravel Hills and were implemented from 2009 to 2012. The treatments consisted of mechanical thinning of high-density conifer stands where trees were mechanically removed from grassland/shrubland to lessen the hazards associated with fire behavior and increase public and firefighter safety. The prescriptions varied according to habitat type, stocking levels and stand condition, topography, and accessibility of the forest stand. After the removal of trees, which opens the canopy, there is an increase in grasses and forbs that help offset the energy costs to big game from the short-term disturbance of implementation. It is expected that these previous treatment units would be retreated in the future as saplings continue to grow and overstock the stands.

It has been shown that different types of human activities cause different responses in elk. It has also been shown that non-motorized recreation changes elk behavior. Elk display their peak feeding times at dusk and dawn, and it is assumed that recreation could occur at all times during daylight hours including these peak ungulate feeding times. The reduced intake of forage during these peak times could force elk to feed in lower quality habitat or feed during off hours, including nocturnal hours. This would force elk to satisfy their immediate nutritional requirements before and after disturbance occurs. The loss of energy expense during traveling is one of the main disadvantages of disturbances for elk as well as the loss of forage intake. This change in time from preferred forage areas to areas of lesser nutrition (due to a negative response to recreation) could have a negative long-term effect on the elk. Big game species found in the SRMA have been exposed to human disturbance in the past when the 40 miles of routes were open to public OHV use prior to 2009, as well as some minor disturbance over ten years ago associated with small mining operations at very specific locations. There has also been a constant disturbance with the development of the private lands surrounding the SRMA.

Environmental Impacts - Alternative A (No Action)

Under Alternative A (the no action alternative), the additional 40 miles of single-track trails would not be built, nor would the formal disc golf courses be established. There would be no additional wildlife disturbance to big game animals. Also, under the no action alternative the area would continue to see an increase in recreational use over time as the population in the surrounding Helena area continues to grow and expand. There would still be habitat fragmentation occurring from previously established routes in the project area, and there would continue to be marginal habitat for big game species. There would be no additional impacts associated with the no action alternative.

Cumulative Impacts

The Scratchgravel Hills SRMA has seen a variety of activities over the past century, including development of routes, development of private lands, noxious weed management, vegetation treatments, wildfire, recreation, mining, livestock grazing, and hunting. It is expected that the area would continue to see these types of activities in the future.

Unauthorized use of routes that are not designated for travel is also likely to continue, as well as unauthorized off-road motorized travel. The disc golf courses would also be expected to continue without any formal organization or permit. Under the no action alternative there would also continue to be substantial loss of wildlife habitat on private land from adjacent residential development.

Environmental Impacts - Alternative B

Under Alternative B (the Proposed Action) there would be 40 miles of single-track trail constructed and maintained on BLM-administered public lands in the Scratchgravel Hills. This would be in addition to the previously established 40 miles of “Closed Yearlong” routes found in the project area. These closed routes, which would be used as non-mechanized trails for walking and horseback riding, have a trail route density of 4.66 mi/mi². Table 3 summarizes the various route usage categories and densities by alternative. The newly created trail system would also have a trail route density of 4.66 mi/mi² in and of itself. Although the Scratchgravel Hills are not specifically managed for elk, cumulatively the two route systems would have a trail route density much higher than the 2 mi/mi² motorized route density that an area that is managed specifically for elk recommends. This action would alter habitat components such as foraging areas, thermal cover, and hiding cover for big game animals. In addition, BLM-administered public land found within the Scratchgravel Hills are not being managed specifically for any of the big game species found in the area, none of which are sensitive species.

Table 3. Various Route Usage Categories and Density by Alternative

	Alternative A – No Action		Alternative B – Proposed Action	
Trail Use	Length	Trail route density	Length	Trail route density
Closed roads used as non-motorized trails (walking, horseback & bike only)	40 miles	4.66 mi/mi ²	0 miles	0 mi/mi ²
Closed roads used as non-mechanized trails (walking, horseback only)	0 miles	0 mi/mi ²	40 miles	4.66 mi/mi ²
New constructed trail system (pedestrian thru E-bike use).	0 miles	0 mi/mi ²	40 miles	4.66 mi/mi ²

Based on 5500 acres BLM-administered public land (8.59 square miles)

North American Ungulates (including elk, mule deer, white-tailed deer, and moose) are generally associated with a mosaic of open areas used for foraging and forested areas used for cover. There could be a short-term disturbance to big game and other wildlife species during project implementation, and a long-term disturbance associated with overall habitat use. As part of the project layout there would be two leave areas, totaling 870 acres (16% of total SRMA) set aside for wildlife that would be free of designated trails to help offset disturbance. There are seeps and a spring in this leave area, which is uncommon for the Scratchgravel Hills; most of the water for this area is found on private lands. These areas would be located on the north end of the SRMA (see Map 2).

Of the 5,500 acres of BLM-administered public land in the Scratchgravel Hills, approximately 2,161 acres (39%) is forested. This forested land along with topography features provide some degree of hiding cover for big game animals. Of the 40 miles of existing closed routes, 24 of these are found within forested areas in the SRMA. There are also 30 miles of proposed trails to be placed in the forested areas, which would add an additional loss of 591 acres of hiding cover. Assuming that most of the forested areas have similar tree densities, the proposed action would reduce the amount of overall functional hiding cover in the SRMA from 1,501 acres (27% of the total SRMA) to 910 acres (17% of the total SRMA) due to proximity and increased disturbance from the new trail system. It is also expected that there would be short-term disturbance to big game and other wildlife species during project implementation.

Table 4. Acres of Forested areas near Routes

Distance to Routes (ft)	Existing		Implementation		Percent Change
	Acres of Forest	Percent	Acres of Forest	Percent	
0-200	659	30.51%	1,251	57.88%	27.37%
200-400	515	23.83%	556	25.73%	1.90%
400-600	397	18.39%	239	11.07%	-7.32%
600-800	313	14.50%	88	4.05%	-10.45%
800-1000	176	8.14%	14	0.63%	-7.51%
1000-1200	71	3.27%	6	0.26%	-3.01%
1200-1400	26	1.20%	5	0.23%	-0.97%
1400-1600	3	0.14%	3	0.14%	0.00%
1600-1800	0	0.01%	0	0.01%	0.00%
Total	2,161	100.00%	2,161	100.00%	n/a

There has been a considerable amount of scientific effort put forth to evaluate the effects of on-road motorized use on wildlife, but there is a gap in data from studies that show the effects of off-road (non-consumptive) recreation on wildlife. This type of disturbance is poorly understood as wild ungulates are sensitive to human activities. Although recreation is widely recognized as an increasingly important factor affecting wildlife, the study of such impacts is still in its early stages. The most common interactions identified in literature associated with trails is displacement and avoidance where animals were reported as altering their use of habitats in response to roads or trails. Large mammals can and do become habituated to human presence, although constant disturbance to wildlife can result in inefficient foraging patterns (Boyle and Samson 1985).

When analyzing the effects of construction and use of a trail system on big game, the greatest attention has been directed towards elk as they have shown to be the most sensitive to direct and indirect disturbances. This can be seen in a study by (Wisdom et al 2004) where in contrast to elk, mule deer showed less change in movement rates during four non-motorized activities compared to the control periods (showing that deer are much more tolerant of human disturbance). Although this assessment focuses on elk, other big game species are assumed to respond similarly.

Primary recreation activities associated with the proposed SRMA trail system include mountain biking, hiking, and horseback riding. Recreational information (except hunting) on ungulates is primarily based on negative impacts from direct disturbance. Often disturbance levels are described in terms of observed behaviors. Elk responses to human recreation range from an increase in general alertness to a slow retreating movement to outright flight. In areas where alternative sites from disturbance are limited, elk may travel notably shorter distance, leading to a misperception of habituation or lack of effect of disturbance on the animals (Stankowich 2008). Even when animals show no apparent behavioral response, studies have shown that animals may experience physiological stress (Creel et al. 2002). In theory such stress, over time, may create greater susceptibility of animals to disease, lower reproduction, and other negative consequences. Trails like roads, could also cause indirect disturbance or avoidance for individual elk. This avoidance could result in additional fragmentation of habitat to that which is already in place from the previous established roads.

Continued exposure to all forms of disturbance leads to conditioning of elk to disturbance and results in unaltered or reduced responses (i.e. habituation). When elk avoid heavily used trails, they alter their habitat use. This creates a loss in habitat due to fragmentation. Once trails are established elk learn to recognize these as potential human encounters and either avoids them all together or during certain times of the day to conserve energy. This shows that with time disturbances may result in less negative reaction from elk. This type of habituation can also pose a risk to becoming more vulnerable to hunting.

Movement rates vary depending on the type of non-motorized recreation use. In a study (by Wisdom et al. 2004) flight responses for disturbances were 500 meters or less (550 yards) for hikers, 500 meters or less (550 yards) for horseback riders, and 1,500m or less (1,640 yards) for vehicles and mountain bikes. This study also showed that elk moved further distance away when fleeing mountain bikes than for horseback or hikers.

Mountain biking currently is one of the fastest growing outdoor activities in this area. Although it is assumed to be more disturbing to wildlife than other forms of recreation, there has been minimal scientific evidence available to assess its impacts. This recreational activity is quieter (generally less talking) and quicker, in some ways, than other forms of activities, and could be considered less predictable to wildlife. Since they can travel greater distances and higher speeds, they cause more disruption overall on a single outing. It is well known that animals react to the human form, and mountain bikers, like vehicles, may seem less threatening to elk. Mountain bikes are also confined to set trails that also make them more predictable.

When looking at mountain biking and hiking (Naylor et. al. 2009) found that once travel responses from direct disturbance ended and the elk had moved away from the routes they were no longer disturbed and resumed their foraging activity. Hiking, usually concentrated on trails, can also be associated with off trail use. Hikers may affect elk by being more unpredictable and slower to pass by. Their recognizable form and likeliness to stop and watch wildlife also increases disturbance to elk.

For horseback riding, elk show more of a tolerance or habituation. Unlike elk showing little to no sign of habituation to mountain biking and hiking there is a documented reduction in travel distance during disturbance by this recreation activity (Naylor et al 2009). Few studies document impacts of horseback riding, however in those that do, horseback riders appear to be on the lower end of the spectrum in causing direct disturbance to wildlife.

As recreation continues to become more popular in the area, more user-created trails could be established. These trails are often unsustainable and have the potential to cause degradation to wildlife habitat. Although there are some negative effects on wildlife and their habitat associated with this project, this development of land would help concentrate recreationalists to the designated trails, which would be more sustainable in the long run. One of the design features of Alternative B is to leave areas free of trails, in the form of wildlife leave areas (see map 2), to allow for small animal sanctuaries.

Cumulative Impacts

The Scratchgravel Hills SRMA has seen a variety of activities over the past century, including development of roads, development of private lands, noxious weed management, vegetation treatments, wildfire, recreation, mining, livestock grazing, and hunting. Some of these activities have led to the loss or degradation of wildlife and wildlife habitat, while other have helped to enhance it.

Roads or trails found within, and adjacent to, the SRMA can cause disturbance to wildlife along with fragmentation and loss of habitat. The existing 40 miles of routes in the SRMA are limited to administrative access only and are closed to the general public. These roads are being left in place for future fire suppression, invasive weed control, and mining access. Although the roads are being left in place they are expected to revegetate over time and some of the roads would be reseeded to accelerate the process. Even though the existing routes are closed to public motorized and would be closed to mechanized use under the proposed action, they would still remain open to public equestrian and human foot traffic, and they could still have impacts to wildlife (due to their association of routes to human activity) and cause disturbance adding to the degradation and fragmentation of their habitat. These routes, which are essentially long, wide, continuous breaks in the vegetation with higher rates of human encounters, would continue to provide opportunities for human use in the forms of foot traffic and equestrian

use. This activity, although minimal, would lead wildlife to continue to associate the roads with human activity. No new roads are expected to be created in the SRMA.

Wildlife often avoid travelling near roads and trails to reduce their probability of encountering people. Roads produce a cleared swath through previously continuous vegetation. Although route closures address some of the impacts on wildlife, the major problems arise simply because the routes are there. Impacts from roads to wildlife come from: 1) Direct loss of habitat; 2) Loss of habitat connectivity; 3) Barrier effect; 4) Disturbance; 5) Increased human access, and 6) increased line of site for hunting.

Past vegetation treatments in the WUI focused on excessive organic fuels. This type of treatment removed conifers from stands that had previously helped provide cover for big game. Over the years, vegetation treatments totaling 1,191 acres have occurred in the SRMA. These treatments have focused on the protection of residential housing from high intensity wildfires. With the increasing population/human interaction in the surrounding area, the likelihood of human ignition also increases, thereby adding to the need for these WUI treatments. This reduction in tree density inadvertently increased line of sight and decreased hiding cover that is also useful to big game animals during hunting season. This reduction in tree density also increased forage for big game while the irregularity of terrain in the area still provides some limited hiding cover. In the foreseeable future, it is expected that there would be a retreatment of all 1,191 acres of past vegetation treatments to reduce saplings that have started to replace existing trees.

Fuels treatments conducted on private lands would also likely occur for the foreseeable future with variable effects. Reducing fuels under the controlled conditions of deliberate treatments may benefit wildlife by increasing grasses and forbs as well as reducing the risk of high severity fires in the treated areas. An increase in residential development on adjacent private lands is also likely to continue for the foreseeable future to variable degrees.

Although wildland fire is a random event, there is always the potential for it to occur. In 2012, there was a 1,851-acre wildfire, called the Corral fire, that burned within and adjacent to the BLM managed lands in the Scratchgravel Hills. Of that 1,851 total acres, 1,225 acres burned on BLM-administered public lands and 626 acres on adjacent private lands. Following the wildfire, the BLM implemented various types of rehabilitation on areas that received higher intensity heat or were in areas that were more susceptible to erosion. These treatments consisted of reseeding, herbicide treatments, and mulch treatments on the landscape. The wildfire occurred after the vegetation treatments focusing on the WUI were completed, which helped lower the intensity of the fire in much of the timbered areas in the SRMA. This helped the vegetation recover quickly providing big game with replacement forage in a shorter amount of time.

As the demand for recreation increases, so do the cumulative effects on wildlife species and their habitats over space and time. There has been and there is expected to be continued recreation occurring within the SRMA in the form of hiking, biking, horseback riding, disk golf, hunting, wildlife viewing, and other activities.

Historically, there have been numerous mining sites as well as current active mining claims in the SRMA. These current active sites allow users to access their sites legally on the administrative access roads through gated barricades, but their limited use of the roads would cause minimal disturbance for wildlife. The actual mining site areas do contribute to limited disturbance for big game but overall, they have low impacts. There is a gravel pit located on the east side of the SRMA with potential for rip rap to be taken from the site in the near future. This is in an already disturbed site and is not expected to add to the overall disturbance to wildlife.

There are two active grazing allotments, Iowa Gulch and Iron Siding, on the north and east sides of the SRMA. Although there is low use during the summer months, with most use on the northern edge adjacent to private, it is expected that they would continue to be active into the foreseeable future. Livestock grazing on adjacent BLM-administered public lands and other public and private lands adjacent to the SRMA have created areas of localized

soil erosion and compaction which could have minimal effects on available forage for wildlife. This is also expected to continue for the foreseeable future. These areas adjacent to the SRMA are expected to slowly decline in livestock grazing as more of the ranches and farmland continues to get subdivided and developed. On public lands, ongoing land health assessments and implementation of livestock grazing guidelines would continue to improve or maintain wildlife populations and their habitat.

Montana Fish Wildlife and Parks manage big game species within the SRMA. This area, which is found in Hunting District 388, is managed as a weapons restricted area for big game during the regular hunting season. Weapons in this area are restricted to archery, crossbow, shotgun, muzzleloader, or traditional handgun during big game hunting season only, as established by MT FWP. There are no current or future changes in management of big game hunting in the SRMA proposed by the FWP at this time.

Resource Issue 4 – Soils

1. How would the proposed actions contribute to erosion within Scratchgravel Hills SRMA?
 - a. How would erosion increase during construction activities?
 - b. How would increased use of constructed trails and areas by hikers, bikers, horseback riders, and disc golfers increase the occurrence of erosion?
2. How would the proposed action effect soils with specialized farmland classification designation?

The primary resource issues identified for soil resources within the Scratchgravel Hills RAMP project area are the potential for increased erosion to occur during construction of future paths and trail systems, increased erosion during use of the trail system once in place, and potential impacts to trails if used during wet periods. Below is a brief summary of soil resource issues identified and how they are quantified in this Environmental Assessment.

- **Increased erosion during construction of proposed trails:** When the soil surface is disturbed, there is the potential for soil erosion to occur. Potential for erosion to occur during construction activities was assessed using the Natural Resource Conservation Service (NRCS) fugitive dust resistance rating for soils within the Scratchgravel Hills RAMP project area. This interpretation rates the vulnerability of a soil for eroded soil particles to go into suspension during a windstorm. Categorical ratings are available for the dominant condition of a soil map unit. The categories are low resistance, moderate resistance or high resistance to fugitive dust production. The percent proposed miles of trail that occurs on each categorical rating is used to quantify potential impact of erosion during construction of proposed trails.
- **Occurrence of erosion or soil degradation during use of proposed trails:** Once the trail system is constructed, the area is expected to receive increased use during wet and dry periods. Potential for damage to occur to the constructed trail system was assessed using the NRCS Paths and Trails rating and the Vehicle Trafficability Rating. The Paths and Trails interpretation rates the suitability of a soil for use by hikers and horseback riders. The Vehicle Trafficability interpretations that were used are the Type 6 Dry Season interpretation and the Type 6, 50 passes, Wet Season interpretation. This interpretation was used because it was determined, based upon estimations of exerted pressure on the soil by mountain bikes and various other vehicles, that a Type 6 vehicle would provide the best estimation of potential impacts. The Trafficability interpretations rate the capacity of the soil to support vehicle use during dry periods and when repeated utilized during wet periods. The categories are excellent, good, fair, and poor. The percent miles of proposed trail that occur within each category were used to quantify potential impacts for use of the constructed trail system.

- **Loss of productivity for soils with a special farmland designation:** The Farmland Protection Policy Act of 1981 was intended to minimize the impact of federal programs on the unnecessary and irreversible conversion of farmland to non-agricultural uses. Loss of productivity was determined to occur when soils with a special farmland designation are proposed to be used for purposes that will not support native or agricultural vegetation. Special farmland designations for soils within the project area were determined using the NRCS Farmland Classification interpretation. Special farmland designations include Prime or Unique Farmland, Farmland of Local Importance, Farmland of Statewide Importance, and Prime Farmland if Irrigated. The acres of soils with a special farmland designation no longer able to support vegetation due to proposed actions were used to quantify the impacts of the constructed trail system.

Affected Environment

The dominant soil map unit within the Scratchgravel Hills RAMP project area identified by the NRCS include:

- Musselshell-Crago complex, 2-8% slopes
- Crittenden-Tolman complex, 4-35% slopes
- Assiniboine-Chinook sandy loams, 2-8% slopes
- Hauz-Sieben-Tolman channery loams, 8-45% slopes
- Woodgulch-Elbeth-Rock Outcrop complex, 8-35% slopes
- Musselshell-Crago-Pensore complex, 4-25% slopes
- Crago-Musselshell gravelly loams, 4-35% slopes
- Whitecow-Crago-Pensore channery loams, 8-35% slopes
- Tolex-Tolman-Hauz channery loams, 8-45% slopes
- Tolex channery loams, 8-35% slopes
- Whitecow-Warneke channery loams, 15-45% slopes
- Tolex-Mocmont-Rock outcrop complex, 25-60% slopes

Characteristics and interpretations for each soil map unit are based upon the official soil series description created by the NRCS (USDA NRCS, 2014). These soils generally occur within frigid temperature regimes and within aridic and ustic moisture regimes, and are generally coarse-loamy, fine-loamy, mixed, or loamy skeletal. Soils within the Scratchgravel Hills area are derived from coarse-loamy or gravelly alluvium derived from limestone, residuum derived from granite, argillite, limestone, or igneous rock, and colluvium derived from granite, argillite, or limestone.

There are approximately 40 miles of historic roads and trails that occur throughout the SRMA. Table 5 summarizes the fugitive dust, paths and trails, Type 6 – season, and Type 6 – 50 passes, wet season ratings for existing routes within the Scratchgravel Hills area. Table 6 summarizes the special farmland classification for soils on which existing routes occur. The condition of the existing roads and trails varies by location. Some areas are stable and exhibit no sign of trail widening or natural recovery while other areas are naturally recovering due to lack of use. A minor component of the existing roads and trails do exhibit signs of trail expansion and erosion. These roads and trails generally occur on steeper slopes or on soils that have relatively low strength.

Table 5: Summary of miles of existing routes within each categorical NRCS soil interpretation for Fugitive Dust Resistance, Path and Trails, Vehicle Trafficability, Type 6, Dry Season, and Vehicle Trafficability, Type 6, 50 Passes, Wet Season.

Fugitive Dust Rating	Miles	Paths and Trails Rating	Miles	Vehicle Trafficability	Rating - Type 6, Dry Season	Rating - Type 6, 50 Passes, Wet Season
					Miles	Miles
Low Resistance	0.0	Not Limited	0.0	Excellent	3.4	0.0
Moderate Resistance	35.3	Somewhat Limited	14.4	Good	0.0	2.6
High Resistance	0.0	Very Limited	20.9	Fair	5.2	4.8
--	--	--	--	Poor	26.7	27.9

Table 6: Summary of NRCS Farmland Classification for soils within BLM-administered public lands within Lewis and Clark County and for soils on which existing routes occur. Routes were buffered by 30 ft from centerline to account for the amount of area removed from potential agricultural productivity.

NRCS Farmland Classification	Acres of BLM within Lewis and Clark County	Acres Effected by Existing Routes
All Prime Farmland	0.4	0.0
Farmland of Local Importance	531.4	3.5
Farmland of Statewide Importance	1182.7	10.9
Prime Farmland if Irrigated	293.5	2.0

The overall condition of the soils within the Scratchgravel Hills RAMP project area is good. Most of the landscape is well vegetated which protects the soil from both wind and water erosion. In the eastern portion of the project area, there continues to be evidence of a past wildland fire that removed much of the vegetation and did result in observable erosion. This area is recovering but there are still areas that are vulnerable to surface disturbing activities.

Note: The Corral fire occurred in 2012 in the Scratchgravel Hills after the most recent fuels (WUI) treatments were implemented. A total of 1,225 acres burned on BLM-administered public lands and 626 acres on private lands. As designed, the WUI treatments reduced the intensity of the wildfire by keeping it out of the crowns of the trees, resulting in a less severe burn overall. Vegetation recovery after the wildfire was expediated by these treatments and soils quickly stabilized. The only areas that required stabilization were in rugged terrain that equipment was unable to access and treat conifers. The BLM conducted rehabilitation treatments on these areas heavily affected by the fire on BLM managed lands the same year the fire occurred. These treatments consisted of mulch, herbicide and seeding to help progress the recovery of vegetation and minimize soil erosion.

Environmental Impacts - Alternative A (No Action)

Implementation of Alternative A would result in no additional trails constructed and current use levels would be expected to remain the same or slightly increase due to growth in the surrounding area. The occurrence of erosion would generally continue to decrease overall within the Scratchgravel Hills SRMA as the area continues to recover from wildland fire and some of the existing trails continue to recover naturally with lack of use. Some level of erosion would continue to occur on roads and trails that are exhibiting this currently. Additionally, no Prime or Unique farmlands within the project would experience disturbance activities.

Cumulative Impacts

The Scratchgravel Hills SRMA and surrounding areas have historically, and more recently, seen a wide variety of activities that have contributed to increases in soil erosion and degradation. Activities include historic mining operations, user created routes, constructed routes, development of private lands for agricultural and residential uses, the introduction and expansion of non-native plant species, prescribed vegetation treatments, wildland fire, and a variety of recreation uses. Some areas in the Scratchgravel Hills SRMA area have recovered or revegetated from these past uses, while in other areas the soils continue to be exposed and subjected to wind and/or water erosion, loss of soil nutrients or continually compacted. Implementation of Alternative A would not add to the impacts that are occurring to the soils within this area. Additionally, implementation of Alternative A would not improve the condition of the soils as a whole in this area either.

Cumulative impacts to soil resources under Alternative A would be minimal. Disturbance of the soil has already occurred within the Scratchgravel Hills SRMA and no future surface disturbing activities that are not associated with mining activities are expected to occur. The soils in the SRMA have generally already stabilized after past disturbances. No additional prime or unique farmlands would be disturbed.

Environmental Impacts - Alternative B

Implementation of Alternative B would result in the eventual construction of approximately 40 mile of trails that would be used by hikers, horseback riders, and mountain bikers. Tables 7 and 8 summarize the increase in number of miles of trails within the Scratchgravel Hills SRMA for the NRCS fugitive dust rating, path and trails rating, dry and wet season trafficability ratings, and potential acres of classified farmland effected from Alternative B.

Table 7: Summary of miles of proposed trail not overlapping existing routes within each categorical NRCS soil interpretation for Fugitive Dust Resistance, Path and Trails, Vehicle Trafficability, Type 6, Dry Season, and Vehicle Trafficability, Type 6, 50 Passes, Wet Season.

Fugitive Dust Rating	Miles	Paths and Trails Rating	Miles	Vehicle Trafficability	Rating - Type 6, Dry Season	Rating - Type 6, 50 Passes, Wet Season
					Miles	Miles
Low Resistance	0.0	Not Limited	0.0	Excellent	1.9	0.0
Moderate Resistance	39.3	Somewhat Limited	11.8	Good	0.0	1.5
High Resistance	0.0	Very Limited	27.5	Fair	2.9	2.4
--	--	--	--	Poor	34.5	27.9

Table 8: Summary of NRCS Farmland Classification for soils within BLM-administered public lands within Lewis and Clark County and for soils on which existing proposed routes may occur and the total number of acres disturbed, inclusive of existing routes. Routes were buffered by 30 ft from the center line to account for the amount of area removed from potential agricultural productivity.

NRCS Farmland Classification	Additional Acres Effected by Proposed Trails	Total Acres disturbed including existing routes
All Prime Farmland	0.0	0.4
Farmland of Local Importance	2.4	5.9
Farmland of Statewide Importance	11.0	21.9
Prime Farmland if Irrigated	0	2.0

All trails would be constructed on soils that are rated by the NRCS as being moderately resistant to propagation of fugitive dust. This rating indicates that the soil has characteristics that are favorable to dust formation. Soil characteristics that affect fugitive dust propagation include size of surface soil particles, rock fragment content, organic matter content, calcium carbonate content, aggregate stability, and the presence of microbial soil crusts. Construction of the trail system would affect a majority of these soil characteristics resulting in dusty conditions during trail construction.

Approximately 11.8 miles of the constructed trails would occur on soils rated as somewhat limited for use by hikers and horseback riders. A somewhat limited rating indicates that some of the soil characteristics are moderately favorable for this type of use. Limitations, primarily in the form of dust propagation, could be addressed with special planning, design, and proper installation methods. Fair performance and moderate maintenance can be expected. Some 27.5 miles of the constructed trails would occur on soils rated as very limited for this use. Design features may not be able to adequately overcome these limitations, primarily steep slopes and dust, without soil reclamation. Poor performance and high maintenance are expected on these trails. When trails

are constructed on soils rated as very limited for paths and trails, the trail plan would require inspection of specific flagged routes prior to construction activities breaking ground to ensure that construction methods and trail locations incorporate site specific soil concerns.

There are 1.9 miles of the trail to be constructed where soils are rated as Excellent and 2.9 miles as Fair for trafficability during dry conditions. An Excellent rating indicates that the soil generally does not have characteristics that limit the trafficability and the very low maintenance is expected. A Fair rating indicates that the soils are moderately suitable for use. Any limitations, primarily slope, can be addressed with design features and appropriate installation methods. Fair performance can be expected, and moderate maintenance and soil degradation can be expected. A majority, 34.5 miles, of constructed trails would occur on soil rated as poor for trafficability during dry conditions. Generally, any limitations that exist, primarily slope, are difficult to address. Poor performance, high maintenance, and soil degradation can be expected. Trails that are proposed on soils rated as poor for trafficability during the dry season would require inspection of specific flagged routes prior to construction and incorporate design features to ensure that site specific concerns on these soils are addressed.

There are 1.5 miles of trails to be constructed on soils rated as Good and 2.4 miles would occur on soils rated as Fair for repeated use during wet conditions. A majority, 27.9 miles, of the constructed trails would occur on soils rated as Poor. The primary limitations for soils within these trails are low soil strength, slipperiness, stickiness, and slope. Poor performance and high maintenance costs would be expected on most trails during use when the soils are wet. The proposed trail system would be monitored to ensure that damage is not occurring. If damage does occur, then the damaged section of the trail system may be modified or relocated.

Cumulative Impacts

Alternative B would result in the disturbance of up to 39.3 additional linear miles due to the construction of the proposed trail system. Soils would generally exhibit some minor erosion during construction activities but would not continue to degrade due to careful review of trail placement and construction techniques. Additionally, any potential erosion that occurs from use of the trail system would be localized and would not substantially degrade overall soil health and productivity in the Scratchgravel Hills SRMA area.

An additional 13.4 acres of prime or unique farmlands would be disturbed, for a total of approximately 30.2 acres. This would result in a loss of approximately 0.7% of the prime and unique farmlands on BLM-administered public lands within Lewis and Clark County. Soils in these areas would generally see a decrease in productivity due to loss of vegetation and disturbance of the soil surface during construction of the proposed trails.

Resource Issue 5 – Weeds: Noxious and Invasive

1. How would the construction and use of a trail system and the disc golf courses in the Scratchgravel Hills SRMA impact and disperse present and new invaders of noxious/invasive weeds?

Affected Environment

Noxious weeds are defined in the Montana Weed Management Plan as “plants of foreign origin that can directly or indirectly injure agriculture, navigation, fish or wildlife, or public health.” There are many ways to be a weed: different combinations of characteristics allow a plant species to specialize on disturbed habitats. Some species are annuals. They complete their lifespan within less than a year and survive between years as seeds in the soil, such as cheatgrass. Others are biennial plants, which are flowering plants that takes two years to complete its

biological lifecycle such as houndstongue (*Cynoglossum officinale*.) While others are perennial plants such as dalmatian toadflax which can be the hardest to control. The Scratchgravel Hills have historically received substantial surface disturbing activity, and in most instances, the more disturbance, the more opportunities there are for noxious weed establishment.

Currently there are 40 weeds on the statewide noxious weed list including five regulated weeds and five additional Lewis and Clark County listed noxious weeds that infest about 7.6 million acres in Montana. Of these, there are nine that are located in the Scratchgravel Hills at some level of infestation.

- Spotted knapweed (*Centaurea maculosa*)
- Dalmatian toadflax (*Linaria dalmatica*)
- Leafy Spurge (*Euphorbia esula*)
- Whitetop (*Lepidium draba*)
- Cheatgrass (*Bromus tectorum*)
- Russian olive (*Elaeagnus angustifolia*)
- Hoary Alyssum (*Berteroa incana*)
- Musk thistle (*Carduus nutans*)
- Common Mullein (*Verbascum Thapsus*)

The BLM has used Early Detection Rapid Response (EDRR) and eradicated Russian olive in the Scratchgravel Hills. Other plants only seem to appear during a very wet spring such as whitetop. Of the remaining 7 noxious weeds present in the SRMA, only three are a major concern because of their tenacity, ability to spread, and already large infestations: Dalmatian toadflax, spotted knapweed, and leafy spurge.

Some areas, such as the acreages that were burned in 2012, have a denser weed population with a higher percentage of canopy cover, mostly leafy spurge, and Dalmatian toadflax. Other areas may have a low percentage of canopy cover and are sparsely populated with weeds such as spotted knapweed.

The BLM has spent the last several years making a concerted effort managing these three well established perennial weed species and trying to limit the potential spread onto private lands. The BLM has been involved in cooperative weed control efforts with Lewis and Clark County. Throughout this period, the goal has been to prevent new noxious weed infestations and reduce or eradicate existing infestations on public lands using Integrated Pest Management (IPM). Biological controls such as the toadflax stem weevil (*Mecinus janthinus*) and the leafy spurge beetle (*Aphthona nigricutis*) have been released. The harsh climate and shallow soils found in the Scratchgravel Hills appear to be limiting the effectiveness or successful expansion of some biological weed control agents. Along with an active herbicide program and having most of the roads closed in 2009, there has been a steady drop in weed infestations from 2,029 acres in 2014 to 1,683 acres in 2018.

Environmental Impacts - Alternative A (No Action)

Spread of noxious and invasive species outside of known infestations would be prevented or mitigated. BLM would still be involved with cooperative weed control efforts with Lewis and Clark County and the continuation of IPM. Due to resource constraints, density and/or size of current infestations may not be reduced.

Since the Scratchgravel Hills are a popular recreation area for local residents, there is a chance of new invasive plants becoming established. Early detection, rapid assessment and rapid response is a critical second defense against the establishment of invasive populations. EDRR increases the likelihood that localized invasive populations would be found, contained, and eradicated before they become widely established. EDRR can slow range expansion and avoid the need for costly long-term control efforts.

Cumulative Impacts

Fuel reduction projects that occurred in the Scratchgravel Hills from 2003-2012 treated approximately 1191 total acres. These treatments opened up the tree canopy and allowed established noxious weeds the opportunity to expand. The Corral Fire in 2012 burned a total on 1863 acres (1220 BLM acres) and contributed to an increase in noxious weeds. Even though the Scratchgravel Hills has been closed to motorized use since 2009 the 40 mile of previous road footprint is still visible today. Historic mining such as hard-rock mining in the uplands, created wide-spread areas of soil disturbances.

Because of the aggressive and competitive nature of noxious weeds, they have spread throughout the area, primarily along road systems, utility corridors, and other disturbed areas, but have also spread into some undisturbed uplands. Noxious weed seeds are often carried along roadways in the undercarriage of vehicles. A Montana State University study showed that a vehicle driven several feet through a spotted knapweed infestation could pick up about 2,000 seeds. Only 10 percent of the weed seeds remained on the vehicle 10 miles from the infestation. Similarly, weed seeds are dispersed by machinery.

Wildlife and livestock disperse seeds two ways. First, animals ingest noxious weed seeds. These ingested seeds can pass through the stomach unaffected, introducing seeds into new areas. Second, many weed seeds can become tangled in the hair coat of animals. When animals are moved to weed free areas, these seeds fall to the ground. Little can be done to limit weed seed dispersal by wildlife. Hikers, dog walkers, disc golfers, and other recreationists spread noxious weed seeds on their clothing or as they pick the flowers and discard the wilted parts along trails and recreation access sites. Even though discarded, these plants continue seed development. Clothing and camping equipment should be brushed, and discards should be burned in a hot fire before leaving an area. Prudence in limiting weed seed dispersal is critical for all recreationists.

Environmental Impacts - Alternative B

Under Alternative B (Proposed Action), there would be 40 miles of new trails constructed and maintained on BLM-managed lands in the Scratchgravel Hills SRMA. This would be in addition to the previously established 40 miles of "Closed Yearlong" (to public OHVs) routes found in the project area. Some existing roads/trails are naturally being revegetated and annually sprayed, which decreases the amount of weed infestations. Ground disturbance from building new trails would most likely increase the number of weeds found in Scratchgravel Hills for a short time until these sites can be treated.

With the larger number of recreational visitors into the Scratchgravel Hills, there is a higher chance of weed dispersal from BLM-administered public lands onto private lands. Even the best prevention efforts cannot stop all invasive species. With new users in the Scratchgravel Hills, new invasive plants could also become established. Early detection, rapid assessment and rapid response is a critical second defense against the establishment of invasive populations. EDRR increases the likelihood that localized invasive populations would be found, contained, and eradicated before they become widely established. EDRR can slow the range expansion and avoid the need for costly long-term control efforts. Treatments along a designated trail system would decrease the chance of weed dispersal along trails from humans/animals compared to open trail system, but off trail hiking by animals/humans still has the unintended risk of transporting weeds and their seeds.

In an effort to reduce noxious weeds in the SRMA, BLM proposes to increase enforcement of the Montana County Weed Control Act (Title 7, Chapter 22 Part 21) by developing a compliance plan or strategy. BLM will also work to establish Cooperative Weed Management Areas and continue weed control efforts through Cooperative Management Assistance Agreements and other management implementation.

Noxious weeds are a problem at each of the Scratchgravel Hills SRMA trailheads because these invasive plants thrive in disturbed areas. Trailheads are ideal for weed establishment because there is frequent concentrated activity in a relatively small area. This repetitive disturbance at trailheads provides the perfect habitat for noxious weeds to become established and increases their ability to spread.

Once established, noxious weeds slowly make their way up trail systems, often hitchhiking as seeds in mud in the treads of mountain bikes, in the socks, shoelaces or gear of hikers and hunters, in the hair or fur of pets, riding and pack animals.

A great prevention tool for noxious weeds is to control them in small areas, such as on the trail system, which helps reduce their spread to weed free areas. Adopt-A-Trail Montana (AATM) is a cooperative volunteer program to help protect Montana's trails from further spread of noxious weeds. The most important component of the AATM program is the volunteer groups. To show appreciation and recognition to the volunteer groups, a sign with the name of the volunteer group would be placed at the site acknowledging the group providing maintenance.

Cumulative Impacts

Under Alternative B (Proposed Action), there would be 40 miles of new trail constructed and maintained in the Scratchgravel Hills SRMA. Ground disturbance from building the trails would most likely increase the number of weeds found in Scratchgravel Hills SRMA for a short time until these sites can be treated. Without the added trail system there is currently 1683 acres inventoried 2018, but when these trails are built that number could increase without proper treatment.

Resource Issue 6 – Cultural Resources

1. How would the proposed action impact historic mining properties?

Affected Environment

To date, no prehistoric archeological sites have been observed in the area and therefore it is impossible to characterize the prehistoric use of the area. The Scratchgravel Hills feature offers spectacular views across the Helena valley, east and south all the way to the Big Belt Mountains, and north to the Little Belt Mountains and the Sleeping Giant feature. They were undoubtedly used for number of purposes, but so far, no trace of any particular site type that would reflect a particular use has been found. This is most likely due to the fact that the entire area was mined during the latter half of the 19th and early portions of the 20th centuries.

Previous inventories have shown an intensive amount of disturbance related to historic mining. The larger mines operated underground, and the openings to those mines are confined to private land. However, public land in the Scratchgravel Hills is heavily marked with prospecting pits of various sizes and depths (over 110), as well as numerous small mines. (Kiely, 2007)

Major activities in the Scratchgravel Hills district encompass an 80-year period of mining developments, beginning with the placer operations of the 1860s to World War II. Sporadic attempts to recover nuggets continues to the present day.

The first placer mining in the Scratchgravel Hills was reported to have occurred even before the Last Chance Gulch placer deposits were found in 1864. These initial placer deposits in Iowa Gulch on the northwest side of the hills

were thin and mined only on an intermittent and small-scale basis. Other placer areas in the Scratchgravel Hills were also small and scattered. Sizeable nuggets, however, were occasionally found after heavy rains in Butcher Knife Gulch in the northeastern part of the district (Swallow 1891; Pardee and Schrader 1933; Wolle 1963; McClernan 1983). Some small-scale mining is still taking place in these locations.

In the south part of the Scratchgravel Hills, the deposits were in a layer of gravel close to the surface. A farmer named E. R. Tandy plowed a few acres in the area and claimed to have turned up a 27-ounce nugget of gold. Others then plowed and raked the area for more nuggets. It was not recorded what was found but the activity did give the Scratchgravel Hills their name. Total placer production is not known but it was never very large, and it ended within a few years of the initial discoveries (Pardee and Schrader 1933; Wolle 1963).

Lode mining in the district got underway in the early 1870s and proved to be profitable although relatively short-lived. The first lode mine to come into production in the district was the Lexington which was in operation during the 1870s. It was said to have produced \$250,000 worth of silver, lead and gold ore before it closed in 1880. Some of the ore was rich enough to make it profitable to ship it to Swansea, Wales for smelting and refining (Pardee and Schrader 1933; Wolle 1963; McClernan 1983).

Another profitable lode mine was the Franklin located at the southern end of the district. Initial, small-scale lode mining was done on the Sam Gaty and Doctor Steele claims as early as 1870. The property was then acquired by Thomas Cruse, the mining entrepreneur who discovered the bonanza Drumlummon mine at Marysville. Cruse operated the Franklin mine from 1914 to 1918 and produced ore worth nearly \$500,000, 90 percent of which was in gold and the remainder in silver (Pardee and Schrader 1933; Wolle 1963; McClernan 1983).

Over 15 underground mines extracted tens of thousands of tons of metal ores, both precious and industrial. A small amount of development work and reworking of old dumps was also carried out up to World War II, but no activity associated with lode mining has been carried out since then (<http://deq.mt.gov/Land/abandonedmines/linkdocs/104tech>).

Environmental Impacts - Alternative A (No Action)

Inventories have identified numerous mining features throughout the Scratchgravel Hills. Most of the features consist of prospecting pits of varying sizes; some of which are straight-sided and exceed 10 ft. in depth. There would be no effect to these features under Alternative A.

Cumulative Impacts

While recent wildfire and fuel reduction projects have increased the visibility of historic mining features, Cumulative Impacts under Alternative A would not affect the current condition of those features.

Environmental Impacts - Alternative B

Development of the new trail system could bring the public within proximity to mine openings, presenting a safety hazard. Mitigation of this hazard would require a pedestrian inventory of marked trails well ahead of construction to accommodate re-routing options to keep the public safe.

New trails and disc golf courses offer opportunities for inadvertent discoveries of unrecorded mining features. Mitigation of this potential issue is best accomplished by making sure the holes and course pathways are at a

reasonable distance from mining *features* to prevent discs from drifting too close. *New hazardous features that may be discovered would be closed.* A recent wildfire, and fuel reduction projects, have exposed more of these features and created more open space, which would facilitate planning simply by making those features more visible than they otherwise would be allowing for BLM to include them in its Abandoned Mine Land inventory and remediation program.

Cumulative Impacts

Cumulative Impacts from this RAMP would bring a wider variety of public land users, and thus more people, in closer contact to historic abandoned mines and current mining activities. A Class III survey of flagged trail locations would be completed prior to any construction activities. Careful planning of use areas that create reasonable distances between use areas and mining hazards would mitigate the potential of adverse impacts to the trail user and to the historic mining features.

Impact Summary

Table 9. Summary of Impacts

Impact Summary		
Action	Alternative A: No Action Current Management	Alternative B: Proposed Action Proposed RAMP
Recreation and Travel Management Existing Travel Routes. Approximately 40 miles unmaintained (see Map 1).	40 miles of existing roads, primitive roads, and trails would continue to be open to all non-motorized uses and administrative/authorized motorized uses. No additional trails would be built, which would result in continued undefined recreation opportunities resulting in negative experiences and outcomes.	40 miles of existing primitive roads and trails would be open to hikers and equestrian users only. Mechanized travel, including traditional and E-Bikes, would be restricted to the new trail system (40 miles approximately). This would result in improved overall recreation experiences for all users. Hikers and equestrians would be able to utilize the new trail system or disperse into areas not open to bicycles on the existing trails.
Recreation and Travel Management New trail construction. Approximately 40 miles of purpose-built trails (see Maps 2 & 3)	No additional trails would be built, which would result in continued undefined recreation opportunities. This would result in negative experiences and outcomes. Specifically, the desires of recreation users would continue to not be met because the existing route system was user-created for non-recreation purposes and is not sustainable.	A new, purpose-built trail system would be built (approximately 40 miles) and would be open to bicycles (traditional and E-Bikes), hikers and equestrians. This would improve overall experiences and outcomes by providing a fun, sustainable, recreation opportunity with varying degrees of difficulty for all user groups.

Impact Summary		
Action	Alternative A: No Action Current Management	Alternative B: Proposed Action Proposed RAMP
Recreation Disc/Frisbee Golf (Folf)	The two existing courses would remain in place, which would cause negative experiences due to poor esthetics and lack of defined areas.	The two courses currently in existence at Tumbleweed and Norris Trailheads would be formalized, which would greatly improve experiences by defining appropriate areas and improving overall esthetics.
Travel Management Public road access and maintenance	No additional trails would be built, which would result in only minor increases in use of the area. Maintenance of existing public access routes would continue to occur only by BLM, as time and resources allow, which could cause unsatisfactory conditions for local residents and area users.	A new, purpose-built trail system would be built (approximately 40 miles). This would result in increased traffic to the area. BLM would work with the public to develop, long-term, sustainable maintenance solutions.
Travel Management Private property interface	No additional trails would be built, which could result in continued negative experiences for users inadvertently accessing private property due to a lack of defined opportunities. It could also result in increased instances of users accessing private property looking for desired experiences that are not being provided on the existing route system.	A new, purpose-built trail system would be constructed (approximately 40 miles). This would result in increased traffic to the trailheads and greater road maintenance needs which impact adjacent landowners. Trail users would have access to a sustainable defined trail system, which could decrease ongoing conflicts with surrounding private landowners.
Recreation and Travel Management Bicycles	Class I, II, and III E-Bikes are not allowed to utilize the existing travel route system under the current regulations. Traditional bicycles are allowed.	All bicycles, traditional and Class I, II, and III E-Bikes would be allowed only on the newly created 40-mile trail system. This would result in increased recreation opportunities for a greater segment of the public. Traditional mountain bikes and E-Bikes would obtain improved recreation experiences by operating on a well-designed, sustainable, purpose-built trail system that would also be open to hikers and equestrians.

Impact Summary		
Action	Alternative A: No Action Current Management	Alternative B: Proposed Action Proposed RAMP
Wildlife	No additional 40 miles of single-track trails would be built, and no formal disc golf courses would be established, which would not add wildlife disturbance to big game animals found in this area.	There would be an increase in trail density in the project area. This action would alter habitat components such as foraging areas, thermal cover, and hiding cover for big game animals.
Soils	Soils have generally stabilized after past surface disturbing activities. Minimal erosion is observed within the Scratchgravel Hills SRMA No additional prime or unique farmlands would be disturbed.	An additional 39.3 miles of trails would be constructed within the Scratchgravel Hills SRMA on soils that are not rated by the NRCS as performing well under these uses. Design features and construction plans would be reviewed onsite prior to construction. This would provide for all site-specific soil concerns to be addressed to ensure that long-term use and maintenance of the trail system would be manageable. An additional 13.4 acres of prime and unique farmland on BLM-administered public lands in Lewis and Clark County would be disturbed. This would result in an increase in 1.4% of prime and unique farmlands on BLM-administered public lands within Lewis and Clark County would be removed from productivity due to activities within the SRMA.
Weeds	No new trail system would be created. Spread of noxious and invasive weed species would increase minimally due to a slight rise in expected recreation activities.	The added 40 miles of single-track trails and formal disc golf courses would create temporary ground disturbance and chance for new areas to be infested by weeds.
Cultural Resources	No change	New trails and disc golf courses offer opportunities for inadvertent discoveries of unrecorded mining features.

Appendix 1 – List of Preparers

Name	Title	Resource Responsibility
Brad Colin	Project Lead - Outdoor Recreation Planner	Recreation & Travel Management
Jason Brooks	Wildlife Biologist	Wildlife and Threatened & Endangered Species
Lacy Decker	Weeds Program Lead	Weeds
Courtney Frost	Geospatial Ecologist	Geographic Information Systems
Carrie Kiely	Cultural Resources Specialist	Cultural Resources
Brandy Janzen	Natural Resource Specialist	Soil, Air & Water
Corey Meier	Assistant Field Office Manager Acting Field Office Manager	Overall Project Review

Appendix 2 – Glossary

Alluvium - Sediment deposited by running water of streams and rivers, typically occurring on terraces well above contemporary streams, on floodplains or deltas, or in alluvial fans.

Avoidance- behavior to withdraw from any potential escalation in the situation at hand.

Aridic Soil Moisture Regime - One of the 5 major soil moisture regimes in Soil Taxonomy. Occurs where soils have no water available for plants for more than half the growing (warm) season, and during the same season there is no period as long as 90 consecutive days when there is water available to plants. Typical of arid regions (deserts).

Colluvium - Unconsolidated, unsorted earth materials transported under the influence of gravity, assisted by water, and deposited on lower slopes.

Displacement- the involuntary physical removal of individuals from their historic or existing home area as the result of humans.

Erosion - The wearing away of the land surface by running water, wind, ice, or other agents that detach geologic materials and transport them elsewhere, usually downslope, including such processes as creep, slope wash, and erosion due to tillage.

Fragmentation - the conversion of contiguous habitat into smaller patches of different habitat or land use. **Frigid Soil Temperature Regime** - A soil with a frigid regime is warmer in summer than a soil with a cryic regime, but its mean annual temperature is lower than 8°C and the difference between mean summer (June, July, and August) and mean winter (December, January, and February) soil temperatures is more than 6°C either at a depth of 50 cm from the soil surface or at a densic, lithic, or paralithic contact, whichever is shallower.

Habitat- the physical and biological surroundings of an organism or, more precisely, as sites having appropriate levels of the biotic and abiotic features required by a species for survival and reproduction. **Habituation**- when animals are exposed to the same stimuli repeatedly, and eventually stop responding to that stimulus.

Hiding cover- vegetation capable of hiding 90 percent of a standing adult...elk from the view of a human at a distance equal to or less than 61 meters (200 ft)

Leave Area-a specified area found within the SRMA that did not have additional trails added, to specifically decrease the overall impacts to wildlife in Alternative B

Refuge- a concept in ecology, in which an organism obtains protection from predation by hiding in an area where it is inaccessible or cannot easily be found.

Residuum - The unconsolidated weathered, at least partly, mineral material that accumulated as consolidated rock disintegrates in place.

Security habitat- must be a nonlinear block of land ≥ 250 acres in size and $\geq \frac{1}{2}$ mile from any open road. **Ustic Soil Moisture Regime** - One of the 5 major soil moisture regimes in Soil Taxonomy, intermediate between aridic and udic, that is common to temperate sub-humid or semiarid regions, or in tropical and subtropical regions with a monsoon climate. Although a limited amount of water is available for plants, water is present at times when the soil temperature is optimum for plant growth.

Wildland Urban Interface (WUI) - The line, area, or zone where structures and other human developments meet or intermingle with undeveloped wildland or vegetative fuels.

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Appendix 4 – Maps

Map 1 – Existing Travel Routes

Map 2 – Proposed Action

Map 3 – Proposed Trails (Area 10)

Map 4 – Distance to Existing Travel Routes

Map 5 – Distance to Existing and Proposed Travel Routes

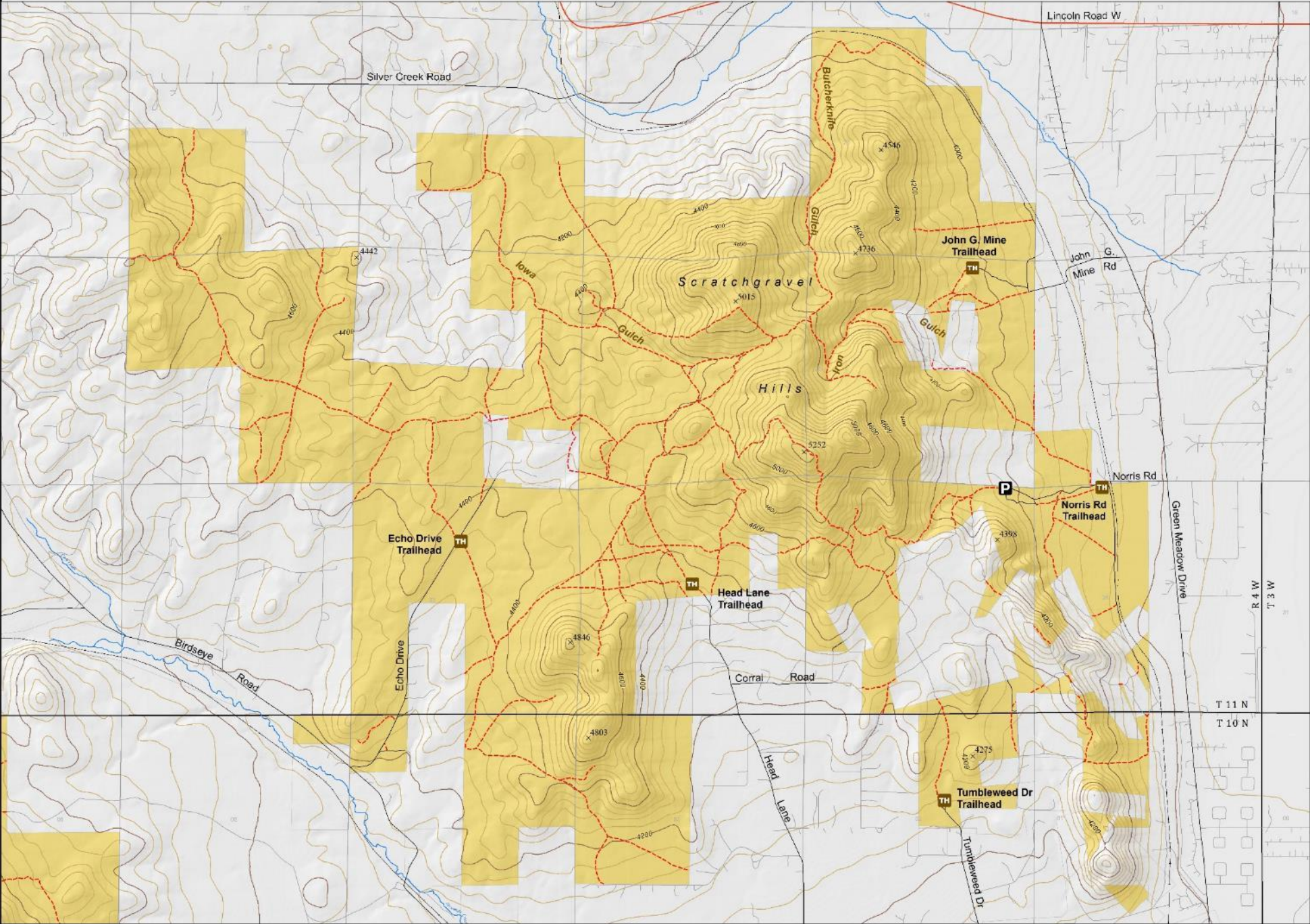


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Bureau of Land Management

Map 1: SGHRA Existing Routes



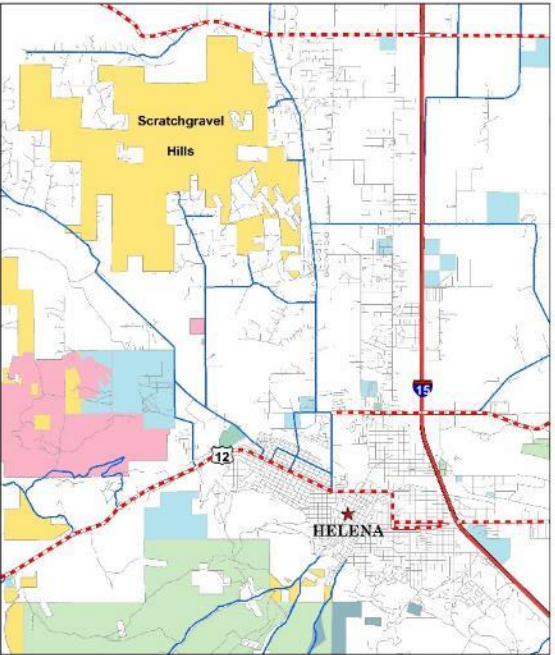
BLM Butte Field Office
106 North Parkmont, Butte, MT | 406-533-7600



- TH Trail Head
- P Parking Area
- Existing Routes
- Rail Lines
- Yellow BLM
- White Private

0 0.5 1 1.5 Miles

North American Datum 1983
UTM Projection, Zone 12
Elevation displayed in feet



Map Produced in 2020

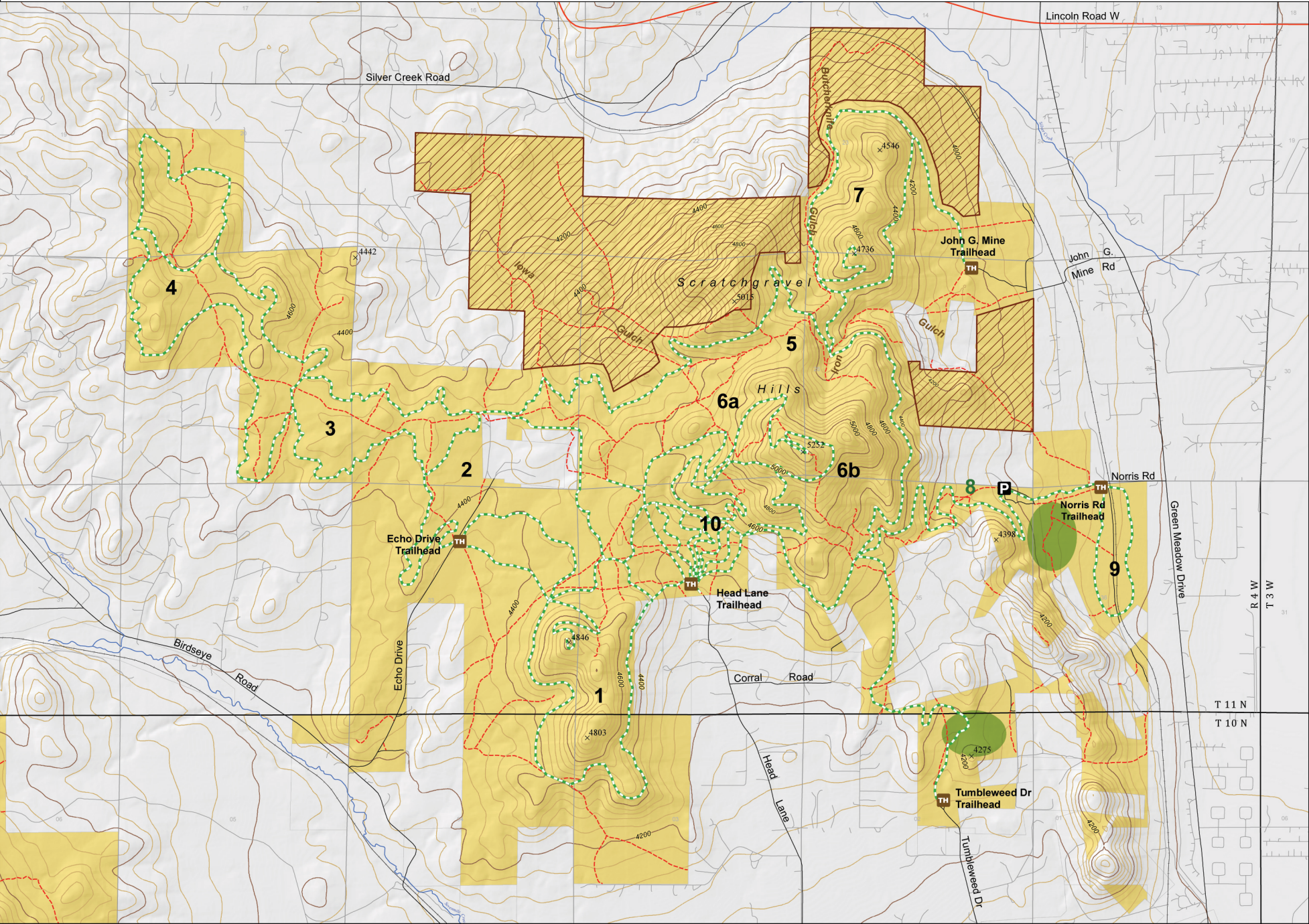


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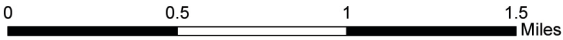
Map 2: SGHRA Proposed Action



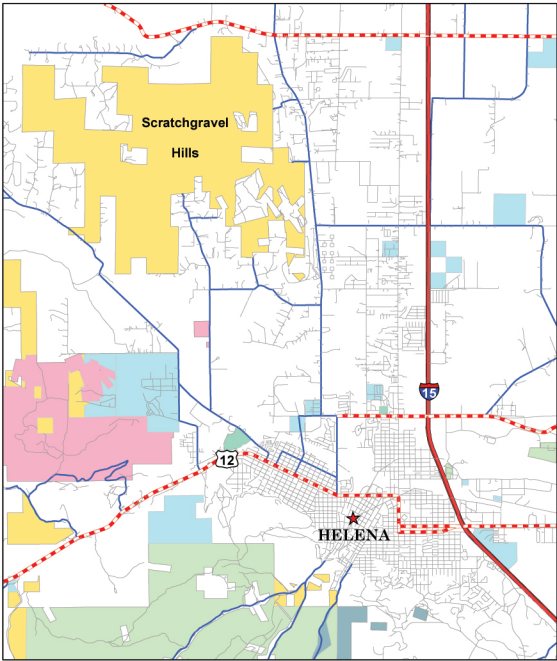
BLM Butte Field Office
106 North Parkmont, Butte, MT | 406-533-7600



- TH Trail Head
- P Parking Area
- Proposed Trail
- - - Existing Routes
- Rail Lines
- ▨ Wildlife Leave Area
- Disc Golf Areas
- BLM
- Private



North American Datum 1983
UTM Projection, Zone 12
Elevation displayed in feet





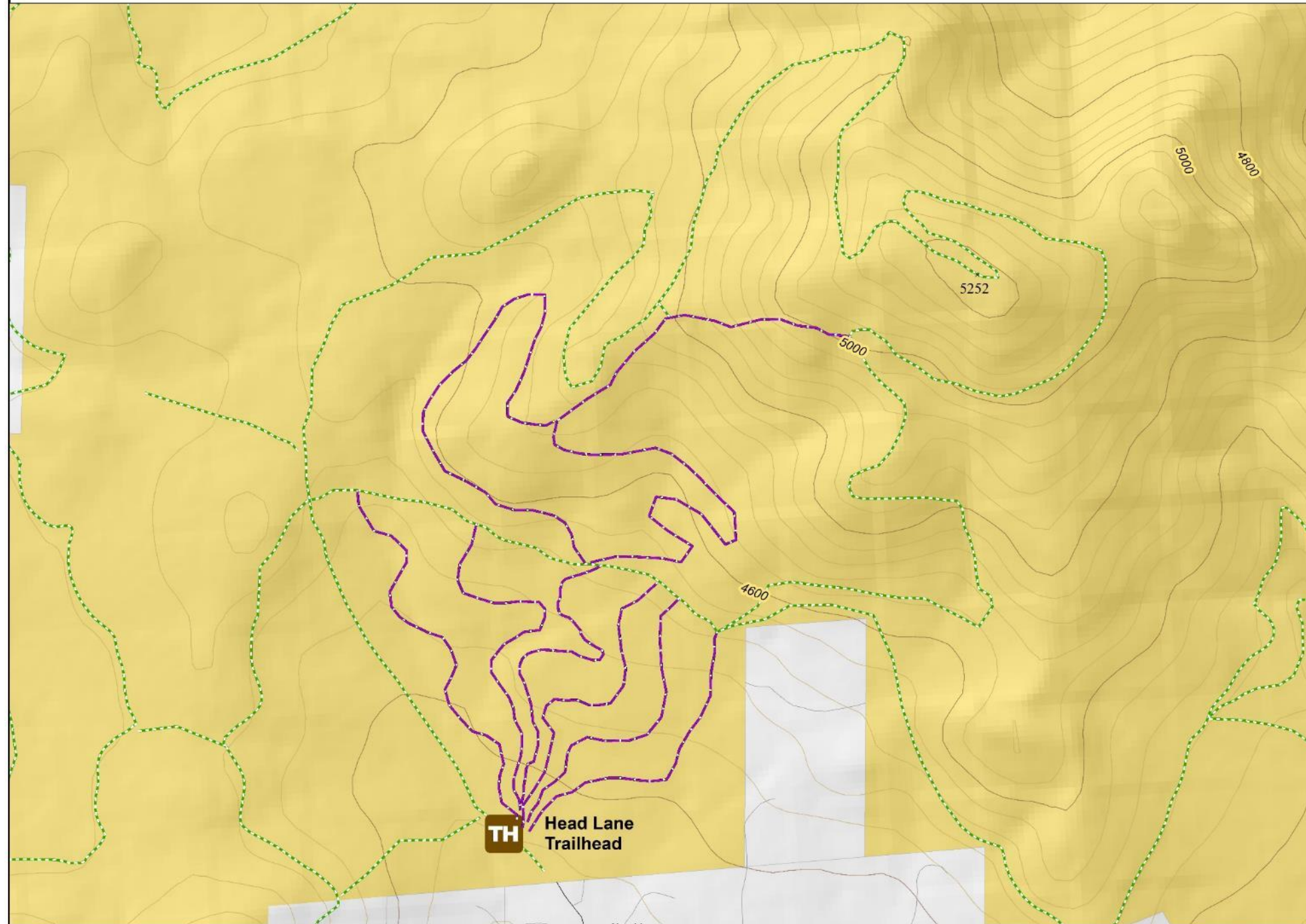
U.S. Department of the Interior
Bureau of Land Management

Map 3: SGHRA Proposed Trails (Area 10)



MONTANA

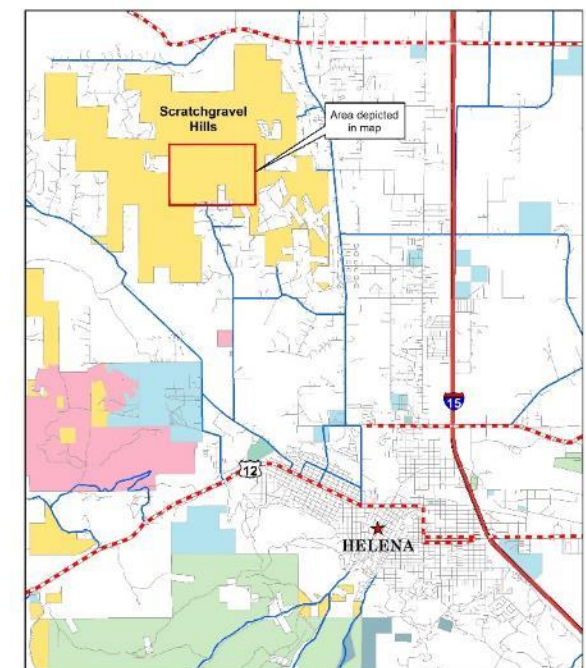
BLM Butte Field Office
106 North Parkmont, Butte, MT | 406-533-7600



- TH Trail Head
- Downhill Routes
- Proposed Trail
- BLM
- Private

0 0.1 0.2 0.3 Miles

North American Datum 1983
UTM Projection, Zone 12
Elevation displayed in feet

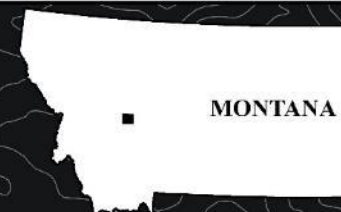


Map Produced in 2019

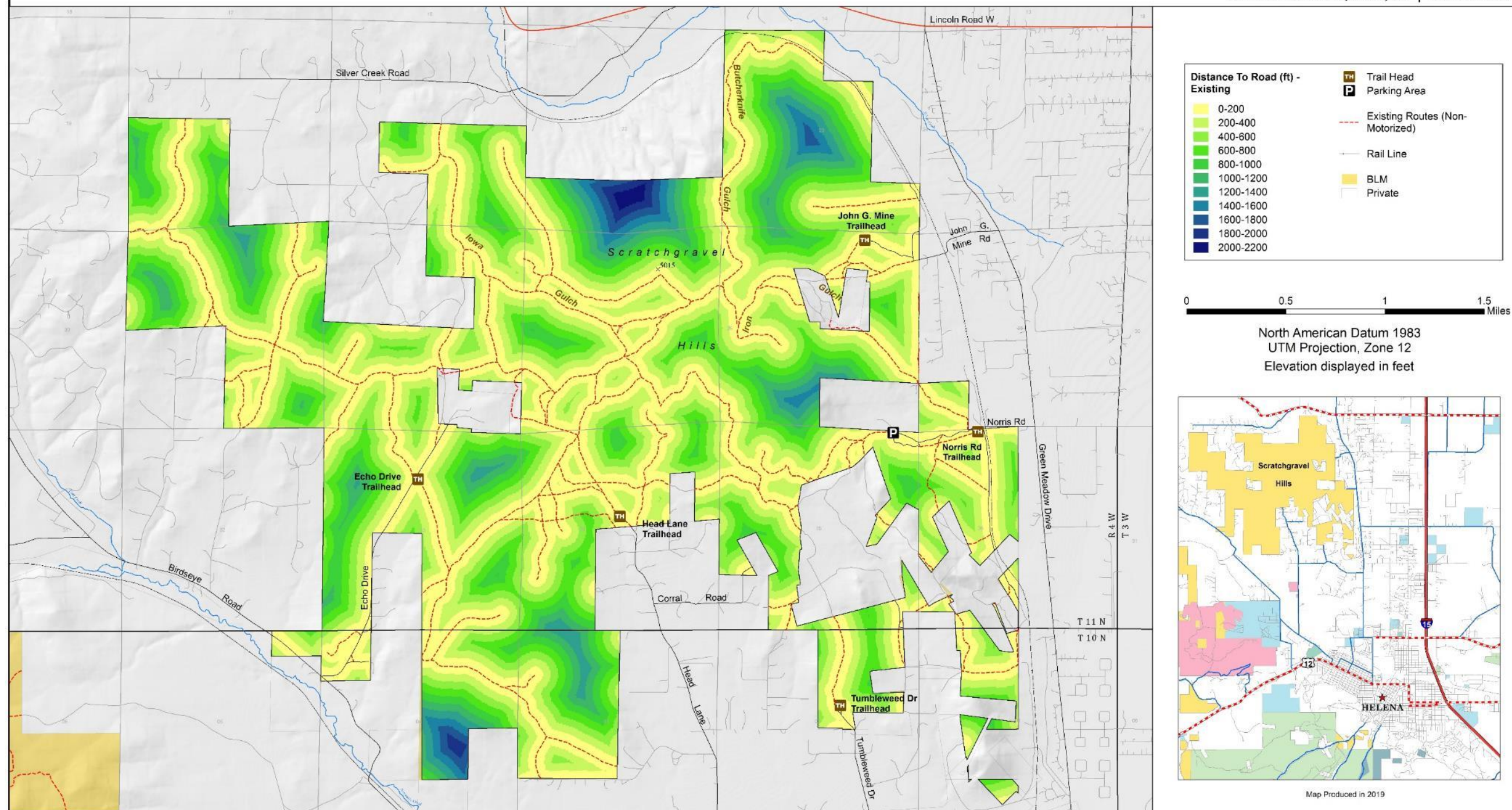


U.S. Department of the Interior
Bureau of Land Management

Map 4: SGHRA Distance to Existing Routes



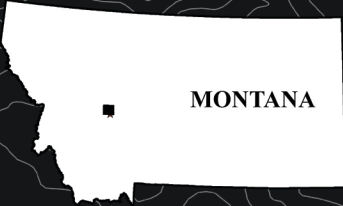
BLM Butte Field Office
106 North Parkmont, Butte, MT | 406-533-7600



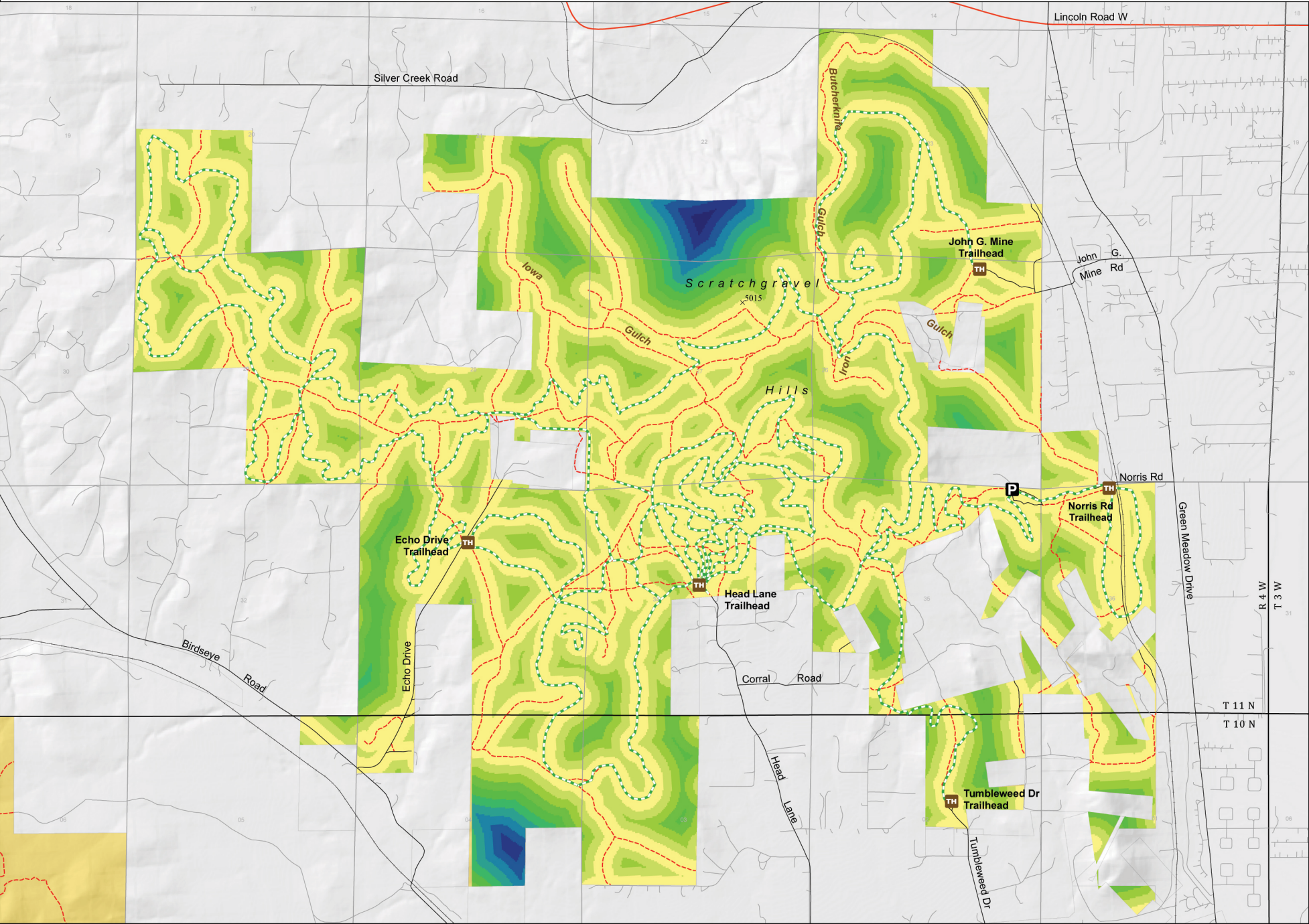


U.S. Department of the Interior
Bureau of Land Management

Map 5: SGHRA Distance to Existing and Proposed Routes



BLM Butte Field Office
106 North Parkmont, Butte, MT | 406-533-7600



Proposed Trail

Distance to Road (ft) - Implementation

0-200

200-400

400-600

600-800

800-1000

1000-1200

1200-1400

1400-1600

1600-1800

1800-2000

2000-2200

TH

P

Trail Head

Parking

Existing Routes (Non-Motorized)

Rail Line

BLM

Private

North American Datum 1983
UTM Projection, Zone 12
Elevation displayed in feet

Map Produced in 2019

Appendix 5 – Travel Route Designations

To properly address E-bike use on the proposed, new trail system, a route-by-route evaluation was completed, in accordance with 43 CFR § 8342.1 – Designation Criteria (see below).

“The authorized officer shall designate all public lands as either open, limited, or closed to off-road vehicles. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and various uses of the public lands, and the minimization of conflicts among various users of the public lands; and in accordance with the following criteria:

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

A total of 11 trails were evaluated utilizing these criteria. The results of these evaluations are provided below.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	1			2	Length	2.0								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: The trail would be optimized to appeal to pedestrians, equestrians, and mountain bikers (traditional and E-Bikes Class I, II, & III). The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. The trail would utilize terrain contours for most of its length, but wind through various terrain to maintain trail interest. The trail would transition for most of its length between forest and grassy hillsides. An easy route for all users that would create a readily accessible loop from the Head Lane trailhead. The trail would connect to another easy loop that would allow access to the Echo trailhead, as well as additional intermediate loops. It would provide users the opportunity to build either short or intermediate length trail experiences within an easy setting.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, and the trail is adjacent an intermittent or ephemeral stream.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.											

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none"> • Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none"> • Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none"> • Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none"> • Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns. • Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet • Intermittent or Ephemeral Stream – Final trail location would be evaluated by Soils Specialist to minimize any impacts to intermittent or ephemeral stream <p>Weeds:</p> <ul style="list-style-type: none"> • Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none"> • Historic mining properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	2			2	Length	4.1								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route:</p> <p>The trail would incorporate some enhanced, natural features that would appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. The trail would cross rolling grasslands and utilize contours for most of its length, utilizing draws and coulees to offer some fun ups and downs. An easy route for all users that creates a readily accessible loop from the Echo trailhead. The trail would connect to another easy loop allowing access to the Head Lane trailhead, as well as additional intermediate loops. It would provide users the opportunity to build either short or intermediate length trail experiences within an easy setting.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route:</p> <p>Note Regarding E-Bikes</p> <p>Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, and the trail crosses two intermittent or ephemeral streams.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none">• Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none">• Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none">• Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none">• Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns.• Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet• Intermittent or Ephemeral Streams – Final trail location would be evaluated by Soils Specialist to minimize any impacts to the two intermittent or ephemeral streams that the trail would cross. <p>Weeds:</p> <ul style="list-style-type: none">• Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none">• Historic mining properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	3			2	Length	3.0								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: This trail would incorporate more natural, enhanced features to appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. The trail would transition between grasslands and pine forest. It would utilize contours for most of its length, utilizing draws and coulees to offer some fun ups and downs. Connects to a popular trailhead via a parking area loop and allows longer, less strenuous options for adventurous runners and hikers. Still easy terrain but connects to an intermediate loop.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, the trail crosses an area that has been designated by the NRCS a farmland of local importance, and a portion of the trail crosses the headwaters of an intermittent or ephemeral stream.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

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11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	4			2	Length	5.6								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: This trail would incorporate more natural, enhanced features to appeal to pedestrians, equestrians, and mountain bikers. The trail tread would be narrow (24") with grades from moderate to steep. The trail transitions between grasslands and pine forest. The directional designation optimizes trail design and reduces the chance for user conflict. A more difficult trail for all users with intermediate length climbs and descents. Mountain bikers would find some challenging climbs, but also fun descents.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, the trail crosses areas that has been designated by the NRCS a farmland of local importance, and a portion of the trail crosses the multiple intermittent or ephemeral streams.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none">• Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none">• Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none">• Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none">• Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns.• Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet.• Farmland of Local Importance – Final trail location would be evaluated by Soils Specialist to minimize impacts to viable farmland.• Intermittent or Ephemeral Streams – Final trail location would be evaluated by Soils Specialist to minimize any impacts to the intermittent or ephemeral streams. <p>Weeds:</p> <ul style="list-style-type: none">• Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none">• Historic mining properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	5			2	Length	8.6								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: This trail would incorporate some natural, enhanced features that would appeal to pedestrians, equestrians, and mountain bikers. It would provide a slightly more technical trail tread as it traverses the rocky, east side of the SRMA, overlooking the Helena Valley. The trail tread would be wider (30") than a normal single-track (usually 18-24"") to allow for easy passage for a full spectrum of users. Additionally, this trail would allow users to experience all four directional aspects of the project area. An easy trail in the core of that project area that would circumnavigate the highest point in the Scratchgravel Hills SRMA. The trail would form a loop that effectively connects all the existing trailheads together, providing users with the longest possible loop in the system. The trail would follow contours over its length but would incorporate some moderate climbs and descents.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, and portions of the trail crosses multiple intermittent or ephemeral streams.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.											

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none">• Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none">• Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none">• Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none">• Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns.• Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet.• Intermittent or Ephemeral Streams – Final trail location would be evaluated by Soils Specialist to minimize any impacts to the intermittent or ephemeral streams. <p>Weeds:</p> <ul style="list-style-type: none">• Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none">• Historic mining properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	6a			2	Length	1.8								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users, including hikers, equestrians, and mountain bikers. It would provide access to climbs and descents from the highest point in the SRMA, utilizing moderate to steep grades through pine and fir forest. The trail would be accessed from every trailhead utilizing easier, lower elevation trails. The trail would be two-way with features designed to curb speed and allow comfortable and safe passage between ascending and descending users. The descent option would be "preferred use" for pedestrians and equestrians. This would be the most challenging trail in the proposed system for all users. It would include a strenuous climb for all users but would be even more challenging for mountain bikers. The trail would provide access to the area's high point, providing users with panoramic views of the entire Helena area.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion and seasonally wet soils.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

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11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	6b			2	Length	1.5								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route:</p> <p>The trail would be slightly wider at 24". It would descend from the highest point in the SRMA on moderate to steep grades. The main descent would be open to hikers and equestrians but would be directional preferred and have mountain-bike specific features constructed from natural materials, including jumps, drops and challenging tread sections. The trail would be directional with a "yield to downhill user" requirement. This would connect to the most challenging trail in the proposed system, with directional design and both play and challenge features for mountain bikers.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route:</p> <p>Note Regarding E-Bikes</p> <p>Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion and seasonally wet soils.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.											

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none">• Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none">• Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none">• Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none">• Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns.• Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet. <p>Weeds:</p> <ul style="list-style-type: none">• Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none">• Historic mining properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA/RAMP Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	7			2	Length	2.3								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: This trail would be open to hikers and equestrians but would incorporate some "flow" features and a few challenging tread sections to appeal to mountain bikers. It would provide scenic views of the north valley, a high point, and encourage use of the project area by nearby residents. The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users. An easy route providing access from the John G Mine trailhead. It would offer an easy, stand-alone loop that showcases the SRMA's more open, hilly terrain with a connection to the larger system. The trail would follow contours over its length but would incorporate some moderate climbs and descents.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, and a portion of the trail crosses multiple intermittent or ephemeral streams.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none">• Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none">• Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none">• Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none">• Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns.• Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet.• Intermittent or ephemeral Streams – Final trail location would be evaluated by Soils Specialist to minimize any impacts to the intermittent ephemeral streams. <p>Weeds:</p> <ul style="list-style-type: none">• Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none">• Historic mining properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
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* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	8			2	Length	2.3								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: The trail tread would be wider (30") than a normal single-track (usually 18-24") to allow for easy passage for a full spectrum of users, including hikers, equestrians, and mountain bikers. This route would climb through pine-covered forest with rocky terrain as it ascends to the main, core loop (route #5) of the trail system. This route would provide access to one of the SRMA's disc golf courses (Norris area) as well as a mid-valley connection to the core of the proposed trail system. Once visitors trail into the system, they would be able to choose moderate-to-long loops of varying physical and technical difficulties. The trail would present moderate to steep climbing in connecting to other routes.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

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Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
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Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
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* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
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Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

Note: There is a presumption that boxes left unmarked were considered by the interdisciplinary team, and the team determined that a purpose and need is not present and/or user/resource conflicts do not exist.

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	9			2	Length	1.3								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: The trail tread would be smooth and wide for comfortable, stable footing. This trail would travel through open grasslands and would offer a very short, easy loop for families with small children and dog walkers. This route would be the easiest of the proposed system for all users. Accessed immediately from the trailhead it would provide a short loop on level terrain.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, the trail crosses areas that has been designated by the NRCS a farmland of statewide importance, and a portion of the trail crosses multiple intermittent or ephemeral streams.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
9	<p>Route Designation Alternatives</p> <table border="1"> <tr> <td>No Action</td> <td>No trail system would be built</td> <td></td> <td>Alternative B Proposed Action</td> <td>OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.</td> <td></td> <td></td> <td></td> </tr> </table> <p>Comments: N/A</p>							No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.			
No Action	No trail system would be built		Alternative B Proposed Action	OHV – Limited to Designated Routes. E-Bikes Class I, II, III, non-motorized and mechanized (traditional bicycles) uses allowed.											

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

10	<p>Recommended Mitigation Measures to Minimize User and Resource Conflicts for Action Alternative:</p> <p>Recreation</p> <ul style="list-style-type: none"> • Opportunities and experiences – Allow hiking and equestrian use cross-country and on existing and newly proposed trail systems. <p>Travel Management</p> <ul style="list-style-type: none"> • Traditional bicycles and E-Bikes – Restrict bicyclists (traditional and E-Bikes) to the newly constructed trail system. <p>Wildlife:</p> <ul style="list-style-type: none"> • Big Game Habitat – Propose utilizing 3 wildlife “leave areas” in the northern and eastern lands in the area, totaling 1001 acres. <p>Soil, Water and Air Resources:</p> <ul style="list-style-type: none"> • Erosion – Final trail location would be evaluated by Soils Specialist to minimize erosion concerns. • Seasonally wet soils – Signage should include information about the impacts from using biking trails when soils are wet. • Farmland of Local Importance – Final trail location would be evaluated by Soils Specialist to minimize impacts to viable farmland. • Intermittent or Ephemeral Streams – Final trail location would be evaluated by Soils Specialist to minimize any impacts to the intermittent or ephemeral streams. <p>Weeds:</p> <ul style="list-style-type: none"> • Noxious/invasive weeds – Increase enforcement of the Montana County Weed Control act. Work to establish cooperative Weed Management Areas. Continue weed control efforts through Cooperative Management Assistance agreements. Implement Adopt-a-Trailhead program and install boot brush stations and improved signing. <p>Cultural Resources</p> <ul style="list-style-type: none"> • Historic Mining Properties – A Class III Cultural Resource Survey would be completed on proposed trail. Relocations to trail locations would be completed, as needed, to avoid cultural resources. <p>See Environmental Assessment for more details on each of the items mentioned above.</p>
11	<p>Summary Regarding the ID Team’s Proposed Action Recommendation:</p> <p>The BLM Interdisciplinary Team (IDT) did not identify any specific reasons to disallow E-bikes on this trail. Recreation and Travel Management are analyzed, pointing out that some traditional bicyclists may not be in favor; however, it is assumed that e-bikers would welcome the opportunity provided by allowing E-bikes on this trail.</p>

Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Checklist for Interdisciplinary Route Analysis					
Purpose & Need Criteria			Resource Criteria		
Administrative Uses			Resource	Potentially Affected? Yes/No	Comment
Use	Yes/No	Comment			
Compliance/Enforcement Monitoring	Yes		* Air Quality - Dust	No	
Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
Dispersed Camping	No	Primarily Day Use	* ACEC	No	
Developed Camping	No		* Wilderness	No	
* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
* Equestrian	Yes	Refer to BLM's Guidelines for a Quality Trail Experience (GQTE)	Other Wilderness Characteristic Considerations	No	
* Mountain Biking	Yes	Refer to GQTE	* Wild & Scenic River	No	
* Hiking	Yes	Refer to GQTE	* National Historic Trail	No	
Permitted Motorized Events	No	Per 2009 ROD/RMP, motorized SRPs are not allowed in this area	Special Recreation Management Area	Yes	
Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
Woodcutting	No		* Adjacent Communities	Yes	Helena Valley
Other Recreational Uses	No		Other Criteria	N/A	N/A

* Signifies that there is an applicable law, regulation, Executive Order, or policy that REQUIRES this use, resource, or conflict to be considered.

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Appendix 5: Evaluation Form for Interdisciplinary Route Analysis

Evaluation Form for Interdisciplinary Route Analysis															
1	Route ID	10			2	Length	7.5								
3	Location	Lewis and Clark County – Scratchgravel Hills			4	Date	03/02/2020								
5	ID Team	Brad Colin, Jason Brooks, Lacy Decker, Carrie Kiely, Brandy Janzen, and Corey Meier													
6	Route Type/Asset Classification	Road	Primitive Road	Trail	X	Way									
7	<p>Purpose & Need of Motorized and Non-Motorized Travel on the Route: This series of 9 short, directional trails (see Map 3) would be open to hikers and equestrians, but would utilize several rocky ravines and low grade, undulating terrain to offer jump lines, drops, and flow features for mountain bikers with easy access from the Head Lane trailhead. A connecting trail from route #1 would allow users to "session" the trails with a short, easy ascent. Route 6b would feed into these trails, allowing a continuous descent to the trailhead from the SRMA's highest point. This area would contain a series of relatively short trails adjacent to the main parking area at the Head Lane trailhead. It would be designed to provide a skills and play area for all ages and ability levels of mountain bikers. There would also be a pedestrian "preferred use" option to provide an easy loop opportunity from the Head Lane trailhead.</p> <p>Additional Comments Regarding the Purpose & Need of Motorized and Non-Motorized Travel on the Route: Note Regarding E-Bikes Electric Bicycles (E-Bikes) are currently defined as a motorized vehicle (43 CFR § 8340.0-5), and thus are currently not allowed in the Scratchgravel Hills SRMA. However, on August 29, 2019, Secretary of the Interior David Bernhardt issued Secretarial Order 3376 for the purpose of increasing recreational opportunities through the use of e-bikes. S.O. 3376 defined Class I, II, and III e-bikes and identified that low-speed electric bicycles operated in pedal assist mode should generally be given the same access as traditional bicycles. Due to this development, E-Bikes have been included in the analysis and are covered under BLM's 43 CFR § 8340.0-5 Off-Highway Vehicle (OHV) regulations.</p>														
8	<p>Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route:</p> <p>Recreation: Opportunities and experiences</p> <p>Travel Management: Traditional bicycles and E-Bikes</p> <p>Wildlife: Big Game Habitat</p> <p>Soil, Water and Air Resources: Erosion, seasonally wet soils, and a portion of the trail crosses multiple intermittent or ephemeral streams.</p> <p>Weeds: Noxious/invasive weeds</p> <p>Issue 6 – Cultural Resources: Historic mining properties</p> <p>See Environmental Assessment for more details on each of the items mentioned above.</p> <p>Additional Comments Regarding Potential Resource and/or User Conflicts from Motorized and Non-Motorized Travel on the Route: None</p>														
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Use	Yes/No	Comment			
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Fire Suppression	No		* Air Quality - Non-Attainment Area	No	
Predator Control	No		* Wildlife	Yes	See EA – Chapter 3
Public Safety	Yes	Separates Uses	* Special Status Species #1 Habitat	No	
Training Area/Facility	No		* Proximity to Special Status Species #1 Habitat	No	
Vegetation Treatment Area	No		* Special Status Species #2 Habitat	No	
Wildlife Water	No		* Proximity to Special Status Species #2 Habitat	No	
Other Administrative Uses	No		In a Wash	No	
Commercial Uses			Wash Crossing	No	
Use	Yes/No	Comment	Proximity to a Wash	No	
Ranching/Grazing	No		Redundant Route	No	
Mining	No	Access is gained on existing route system	Herd Management Area	No	
Mineral/Materials	No		* Vegetation	No	
Fluid Minerals	No		* Special Status Plant Species #1	No	
Renewable Energy	No		* Special Status Plant Species #2	No	
Right-of-Way	No		Invasive Non-Native Vegetation	Yes	
Utility	No		Other Vegetation	No	
Special Recreation Permits	No	Per RMP, only Non-Motorized SRPs would be considered on a case-by-case basis	* Soils	Yes	
Other Commercial Uses	No		Erosive Soils	Yes	See EA – Chapter 3
Public Uses			Other Sensitive Soils	No	
Use	Yes/No	Comment	* Watershed	No	
Property Access	No		Water Quality	No	
Public Access	Yes		Stream Crossing	No	
Other Public Uses	No		* Cultural Resource Site	Yes	See EA – Chapter 3
Recreational Uses			Proximity to Cultural Resource Site	Yes	See EA – Chapter 3
Use	Yes/No	Comment	High Probability Cultural Resource Area	Yes	See EA – Chapter 3
OHV Use	Yes	E-Bikes Class I, II, III	* Paleontological Resources	No	
Trailhead Access	Yes		* Visual Resource Management Class	No	
Loop/Connector Trail	Yes		Known Visual Scar	No	
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* Hunting	No		* Wilderness Study Area	No	
* Recreational Shooting	No		* Natural Area	No	
* Fishing	No		Wilderness Characteristics	No	
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Wildlife Viewing	Yes	Secondary benefit of trail	Recreation Management Zone	No	
Rock hounding	No		Prescribed Recreation Setting (ROS)	Yes	
Picnicking	No		* Conflicts with Other Recreational Users	Yes	See EA – Chapter 3
Pullouts	No		* Noise	No	
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