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E-bikes on Trails

Environmental Assessment

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CHAPTER 1. INTRODUCTION

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of changing the allowable uses on trails to authorize the use of Class 1 electric mountain bikes (e-bikes) in 6 trail systems administered by the Bureau of Land Management (BLM) in the Cedar City Field Office (CCFO) (See identified trail system maps in appendix A). The areas identified for proposed e-bike authorization are the Iron Hills National Recreation Trail System, Thunderbird Canyons Trail System, the proposed Enoch Bench Trail System, Evil Water Trail System, Three Peaks Mountain Bike Trail System, and the Beaver Bench Trail System.

1.1. Background

Since the implementation of purpose-built mountain bike trails starting in 2015, the Cedar City Field Office has become a mountain bike destination. Within the current existing trail systems, two National Interscholastic Cycling Association (NICA) venues and racecourses have been established. Quality built trails, exceptional trail access for communities, and successful local partnerships led the Secretary of the Interior to recognize the Iron Hills Trail System as a National Recreation Trail (NRT) in 2023. Of the six areas identified in this analysis, five are existing and one, the Enoch Bench Trail System, is conceptual and has not progressed past trail design. Aside from the Ghost Flats trail in the Thunderbird Canyons Trail System that is open to motorcycles, all trail systems within the Cedar City Field Office are currently restricted to bicycles and pedestrians.

E-bikes have become increasingly popular in the recent years. Until around 2022, most e-bike manufacturers resided overseas. In 2022, there were 1.1 million e-bikes imported to the United States, more than doubling the number of imports in 2020 (Business Insider, 2023). E-bikes were responsible for 63% of the growth in dollar sales of all bicycles between 2019 and 2023, contributing 20% of dollar sales and 4% of unit sales across the entire measured market in 2023. Electric bike sales in the United States accounted for $878 million in 2022 and $788 million in 2023 (The Nerd Collective, 2024). Local Cedar City bike shops have reported upwards of 70% of total sales being e-bikes since 2020; however, the majority of these sales are urban commuter bikes. The BLM's intent to authorize Class 1 e-bikes is not driven by economic interests. Instead, the noted increase in e-bike sales reflects a corresponding rise in observed e-bike use on CCFO trails.

PeopleForBikes, a non-profit cycling advocacy organization, created three categories that e-bikes would be classified into. These classes are defined below.

- Class 1: E-bike equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches a speed of 20 miles per hour.
- Class 2: E-bikes equipped with a motor that provides assistance regardless of whether the rider is pedaling but ceases to provide assistance when the bicycle reaches a speed of 20 miles per hour. Typically operated with a grip-twist or button throttle assisted system.

- Class 3: E-bikes equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches a speed of 28 miles per hour.

1.1.1. State of Utah Definition of E-Bikes

Utah law identifies e-bikes as a traditional pedal bike that is propelled by human power and equipped with an assisting motor. Utah recognizes three classes of e-bikes. Each class is limited to a 750W (1 Horsepower) motor and has a maximum assisted speed of 20-28mph.

1.1.2. State of Utah E-Bike Policy

- E-bikes are regulated like bicycles. The same rules of the road apply to both electric and human-powered bicycles.
- E-bikes are not subject to the registration, licensing or insurance requirements that apply to motor vehicles.
- Utah designates three classes of E-bikes that categorize E-bikes based on motor size, max assisted speed, and throttle-assist.
- E-bikes are allowed on bike paths.
- E-bikes are not allowed on sidewalks.

Utah State Parks currently does not have an electric mountain bike policy for trails.

Figure 1. Visual from IMBA explaining differences between e-bike classes.

1.1.3. BLM E-Bike Policy & Guidance

In December 2020, the BLM amended its regulations at 43 CFR 8340.0-5 to define e-bikes, which are limited to Class 1, 2, and 3 e-bikes. The revised regulation provides that authorized officers may authorize, through subsequent land-use planning or implementation-level decisions, the use of Class 1 e-bikes on trails open to traditional mountain bikes. This rule came in response to Secretary's Order (SO) 3376, which stated a purpose of increasing recreation opportunities for all Americans through the allowance of e-bikes on public lands.

This document is analyzing the impacts of changing the allowable uses pursuant to 43 CFR 8342.2 to allow for Class 1 e-bike use on trails in six identified trail systems.

1.2. Purpose and Need

The purpose of changing the allowable uses on CCFO trails is to expand recreational opportunities and experiences for Class 1 e-bike users on BLM administered lands while also reducing confusion for Class 1 e-bike users regarding where they are authorized to recreate. The need is to meet FLPMA section 102(a)(8) which mandates that "public lands will be managed in a manner that provides for outdoor recreation."

1.3. Decision to be Made

The BLM CCFO authorized officer will decide whether to approve the change of allowable uses on trails pursuant to 43 CFR 8342.2 to authorize Class 1 e-bike use in the six trail systems identified based on the analysis contained in this EA. Under the National Environmental Policy Act (NEPA), the BLM must determine if there are any significant environmental impacts associated with the Proposed Action warranting further analysis in an Environmental Impact Statement (EIS).[1]

The BLM authorized officer may choose to:

- Authorize the project as proposed.
- Authorize the project with modifications.
- Authorize an alternative to the proposed action.
- Authorize a combination of the alternatives.
- Not authorize the project.

[1] The [BUREAU] is aware of the November 12, 2024, decision in Marin Audubon Society v. Federal Aviation Administration, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, the [BUREAU] has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500– 1508, in addition to the Department's procedures/regulations implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, to meet the bureau's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

1.4. Scoping and Issues

A 30-day public comment period opened on February 14, 2025 and closed on March 17, 2025. A total of 61 comments were received. Of the 61 comments received, 8 were substantive. A list of substantive comments and BLM responses can be found in Appendix B.

Table 1. Issues Analyzed in Detail

RESOURCE AND ISSUE #	ISSUE STATEMENT
[Recreation] - Issue 1	How will allowing e-bikes on trails impact the amount of use on trails?
[Recreation] - Issue 2	How will e-bikes impact visitor experience?
[Recreation] - Issue 3	How will e-bikes impact trail tread surface and maintenance needs?

CHAPTER 2. ALTERNATIVES

2.1. Alternative A – No Action Alternative

The No Action Alternative would result in no change in current allowable uses in the six trail areas identified. E-bikes would continue to not be authorized on any non-motorized trails throughout the Cedar City Field Office.

Alternative B – Proposed Action

The BLM Cedar City Field Office would authorize a change of allowable uses on trails to allow the use of Class 1 e-bikes in these six trail systems located in CCFO (See Appendix A for trail system maps):

- Iron Hills National Recreation Trail System
- Thunderbird Canyons Trail System
- Enoch Bench Trail System (proposed)
- Evil Water Trail System
- Three Peaks Mountain Bike Trail System
- Beaver Bench Trail System

Class 1 e-bikes would not be permitted on trails in Wilderness Study Areas (WSA). Any future trails to be added to the identified trail systems would allow for e-bike use. If the BLM decides to construct new trail systems that are not identified in this document, a separate analysis would be completed to analyze for allowing e-bike use.

2.1.1. Design Features

<u>Adaptive Management</u>

As part of the Proposed Action, the CCFO would implement adaptive management strategies to take inventory and monitor the conditions of both the trails and user experiences following

implementation. Adaptive management would allow the CCFO the ability to make effective decisions if there is a future change of the affected environments and management objectives are not being met. Further analysis would occur if any of the proposed adaptive management strategies require environmental compliance.

Examples of adaptive management strategies associated with the Proposed Action include:

- Public Education: Educational materials such as graphics illustrating what class of e-bikes are authorized, trail user right of way signage, and trail etiquette materials would be placed on kiosks and signs around the trail systems. The BLM and partners would utilize social media to distribute educational messages associated with the Proposed Action.
- Changes in frequency of Law Enforcement patrols. BLM Law Enforcement Officers will be educated on how to distinguish the difference between Class 1,2, 3, and unclassified e-bikes.
- Signage indicating specific trails or trail loops where e-bike use is suggested for enhanced user experiences.
- Implementation of more directional trails to reduce potential user conflicts typically associated with bidirectional travel.
- Construction of new trail to aid in dispersing users throughout the trail systems.
- Expansion of existing trailheads and construction of new trailheads if the BLM experiences increased use beyond what current infrastructure can support.
- If soil impacts are observed through monitoring the BLM may modify segments of routes (i.e. new grade reversals or speed checks) or reroute trail segments if soil erosion can't be fixed by maintenance techniques.

The following thresholds have been set to identify triggers that would initiate execution of adaptive management strategies:

Potential Effects of the Proposed Action	**Thresholds That Would Trigger Adaptive Management**
Increases in Trail Use	If the BLM sees an increase in trail use greater than 10% of the 2019-2024 annual average, adaptive management strategies would be implemented.
Public Complaints/User Conflicts	Prior to the initial public scoping period, the BLM CCFO had not received any formal or informal complaints related to visitor interactions with Class 1 e-bike users. If the BLM begins to receive complaints from the public associated with Class 1 e-bikes on trails, regardless of user group, adaptive management strategies would be selected for implementation based on the nature of the complaints.

Increased Trail Maintenance Needs	BLM staff and local partners will continue ongoing monitoring of trails following implementation. Iron TrailCraft is the local non-profit volunteer trail organization. BLM staff will regularly attend Iron TrailCraft board meetings. If the board indicates an increase in trail maintenance needs as a result of the Proposed Action, the BLM will implement necessary adaptive management strategies in areas of need.

The BLM would use a variety of monitoring and data collection methods to assess if adaptive management is necessary. Visitor use would be monitored in multiple ways. Visitor use data would be collected using existing magnetic and infrared counters placed on trails and at trailhead parking areas. More detailed use information will be tracked using access to online fitness tracking applications, such as Strava Metro, to better understand what modes of transportation individuals are using to recreate. If necessary, the BLM will implement visitor use monitoring and/or surveys to collect data on use types and visitor experience. The BLM will monitor local partner social media pages for public feedback associated with the Proposed Action.

Temporary Closures

The BLM may implement temporary closures of certain trails, trail systems or associated facilities as outlined in 43 CFR 8364.1, for events such as competitive or organized group activities or to protect public health and safety. Any potential temporary closures would be publicly announced in advance, following the requirements defined in this rule.

2.2. Alternatives Considered but Eliminated from Detailed Analysis

2.3.1 Only allow Class 1 e-bikes in the Enoch Bench Trail System once it is constructed.

While this alternative would slightly increase recreation opportunities for Class 1 e-bike users, it would be to a very small scale compared to the number of trails traditional bike users currently have access to. While the Enoch Bench Trail System has been authorized, the trail system's construction is not guaranteed and is dependent on the BLM's funding and staffing capacity. Further, the CCFO Trails Master Plan includes future trails connecting the Enoch Bench Trail System to the Fiddler's Canyon and Thunderbird Canyon areas. Similar to all other trail systems identified in this analysis, once Enoch Bench is connected to other trail systems it would be difficult to convey to users where Class 1 e-bike users were allowed to travel. This alternative would not support the project's purpose of reducing Class 1 e-bike user confusion of where e-bike use is authorized within the CCFO.

2.3.2 Construct e-bike specific trails in areas already managed for motorized use.

During the initial public scoping period, a comment suggested that the CCFO consider following a similar approach that the U.S.D.A Forest Service used in the E-Bike Use Designation on Select Jackson Area Trails Environmental Assessment. This EA analyzed an alternative where instead of authorizing e-bike use on trails where only traditional bikes where allowed, the Forest Service would instead focus on expanding e-bike-specific trails in areas already managed for motorized use.

There are currently no designated motorized trails or routes within the CCFO. It is likely that this alternative would not meet the purpose of reducing confusion on where Class 1 e-bike use is authorized. Traditional motorized users (motorcycle, ATV, UTV) are typically traveling at much higher speeds than Class 1 e-bikes are capable of, especially on flat or uphill terrain, which could generate safety issues for all user types.

The goal of expanding Class 1 e-bike user opportunities and experiences is also related to the social component of the activity. The initial public scoping period brought about multiple comments from the public referring to multi-generational recreation, specifically to how Class 1 e-bikes allow some individuals the ability to recreate with their children or grandchildren. This alternative would continue to segregate e-bike users from traditional bike users and would not meet the purpose of providing increased recreation opportunities and experiences for Class 1 e-bike users.

2.3.3 Only select specific trails that Class 1 e-bikes would be authorized on.

The CCFO trails have been professionally designed and constructed to provide a quality user experience, regardless of whether a trail user is on a bike or on foot. Specifically, many of the CCFO trail systems incorporate directional trails, with some only allowing climbing and some only allowing descending. This aspect of trail design and trail management helps disperse users throughout the systems which increases trail carrying capacity, increases rider and hiker safety by not allowing uphill travel on trails that produce higher speeds, and reduces the opportunities to pass trail users traveling in the opposite direction which enhances user experience. If Class 1 e-bikes were only allowed on select trails within existing trail systems, it is likely that e-bike riders could get "trapped" into areas of the complex systems where they would have to backtrack to legally exit the system. This alternative would also be extremely difficult to enforce, since BLM staff would have to be physically on trails within the large trail systems to note violations. For these reasons, this alternative does not meet the purpose and need and will not be analyzed further.

2.3. Conformance

The Proposed Action and alternatives described are in conformance with the Cedar Beaver Garfield Antimony Resource Management Plan (CBGA RMP), specifically:

Recreation, Objectives (page 63), which states: "*Provide recreation opportunities under the Bureau's basic stewardship responsibilities for unstructured, extensive types of recreation uses, maximizing the visitor's freedom of choice. Continue to maintain important recreational values in Federal ownership to insure this continued diversity of recreation opportunities.*"

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

This chapter defines the scope of analysis contained in this EA, describes the existing conditions relevant to the issues presented in Table 1 in Section 3.2, and discloses the potential impacts of the proposed action and alternatives."

3.1.1. Affected Environment

Below are descriptions of the existing environment in the six trail systems being analyzed in this document.

Iron Hills National Recreation Trail System

Located adjacent to Cedar City, the Iron Hills National Recreation Trail System consists of 36 miles of purpose-built mountain bike trails. Trails within this system range from beginner to expert difficulty levels. Trails traverse a variety of landscape features from 6,000ft to 8,200ft in elevation. The trails in this system traverse through mostly dense pinyon and juniper trees with little understory due to the rocky volcanic basalt that layers most of the soil surfaces. Use in this trail system has grown on an annual basis, which is anticipated to continue due to the National Recreation Trail designation in 2023. This trail system currently receives an estimated 35,000 visitors annually. Trails in this system can be accessed from five different trailheads. Trailheads are currently gravel and delineated with post and pole fencing. Three of the trailheads have restroom facilities and bike repair stations. Efforts are underway to expand trailheads where additional parking is needed due to increased use. Although this system receives the highest amounts of use compared to any other trail systems in the CCFO, erosion-based trail maintenance needs are low due to the trails being constructed using sustainable techniques illustrated in the International Mountain Bicycling Association's (IMBA) and BLM's *Guidelines for a Quality Trail Experience* and IMBA's *Mountain Bike Trail Development Guidelines* documents. Two mountain bike guide companies hold commercial special recreation permits for operating in the Iron Hills and interest for commercial bike shuttle companies is increasing.

Thunderbird Canyons Trail System

The Thunderbird Canyons Trail System located just west of Cedar City currently has 6 trails ranging from beginner to advanced difficulty levels. Hiking is the primary use in this system. Trails here offer users a unique experience through immersion into the vibrant red rock canyons. The Ghost Flats trail is currently the only trail within the designated CCFO trail systems that allows both motorcycle and bicycle use. Thunderbird Gardens Trailhead, the main access point for this trail system, has received more than 50,000 visitors per year; however, a large percentage of these trailhead visitors are using the Thunderbird Gardens Disc Golf Course rather than the trails. Erosive soils and steep terrain occasionally create trail maintenance issues after large rain events. This trail system is accessed from the Red Hollow, Thunderbird Gardens, and 13th Hole Trailheads, all of which are on Cedar City property.

"Proposed" Enoch Bench Trail System

Five miles north of Cedar City, approximately 7-miles of trail have been designed and flagged. Trails in the Enoch Bench Trail System will traverse open terrain through much of a fire fuels reduction project that was approved in the Parowan Front EA. Future trails will be beginner to

intermediate difficulty levels. A trailhead is currently proposed along the west side of I-15 and will provide access to the trail system via a freeway underpass.

Three Peaks Mountain Bike Trail System

The Three Peaks Mountain Bike Trail System has 25 miles of beginner to advanced trails and offers trail user's unique experiences on man-made ladder bridges throughout. Many trails here traverse undulating slickrock, and the soils consist of decomposed granite which offers those recreating great options for riding or hiking after rain or snowstorms. A NICA venue was constructed at this location and hosts up to 3 high school mountain bike races per year. This trail system is the only trail system in the CCFO that receives high use throughout the winter months. Although motorcycle and ATV use is not authorized in this trail system, illegal motorcycle/ATV use on these trails is common due to both the high number of users in the general recreation area and the trails bisecting roadways in many locations.

Evil Water Trail System

Approximately 5 miles east of Parowan, UT, the Evil Water Trail system has three trails totaling 5.4 miles in length. The beginner trails accessed from the Parowan Canyon Trailhead weave throughout the popular Parowan Canyon Disc Golf Course. While the Valentine Peak trail is not closed to bikes, this trail receives very infrequent bike use due to the steep grades and challenging stairstep features.

Beaver Bench Trail System

The Beaver Bench Trail System has 12 trails totaling 17.8 miles in length. Trails in this system receive beginner to intermediate difficulty ratings. Trails are accessed from the Mammoth Crossing and Table Top trailheads. A proposed trailhead has been identified in the center of the trail system, but a vehicle bridge across an irrigation canal would be necessary. Less than 10% of trail segments are through treed corridors due to a past fire fuels reduction project in the area. A NICA racecourse and venue encompasses the northern section of the trail system. Maintenance needs, specifically vegetation clearing within trail tread, have been high in this trail system due to low visitor use numbers. There is also a high threat of trail damage from illegal motorcycle/ATV use since the open terrain and intersecting roads are not conducive to providing natural barrier to limit motorcycle and ATV access to these trails.

3.1.2. Environmental Impacts

Statement 1: How will authorizing e-bike use impact visitor use numbers in the trail systems?

- **3.2.1 Affected Environment**

Recreation visitor use numbers vary throughout each trail system. Refer to Figure 1 for current visitor use numbers. Washington County, just south of Iron County, is projected to increase in population by 155.1% (ranked 1st in Utah for growth) over the next 40 years, while Iron County is project to increase in population 70.1% (ranked 7th in Utah) and Beaver County is projected to increase in population 43.9% (ranked 14th in Utah for growth) (Hollingshaus et al., 2022). An

increase in human population growth is a sufficient predictor of overall growth in total participants of outdoor recreation participation and can cause crowding at recreation sites (White et al. 2016).
In 2021, the National Park Service saw an increase of 60 million visits nationwide, or an increase of 25.3% from 2020 (Ziesler & Spalding, 2022). Zion National Park (ZNP) has experienced record visitation rates in recent years (5.04 million in 2021) and has been steadily increasing year-over-year since 2008 (2.69 million visitations) (Statista, 2022). Due to increasing visitation from nearby national parks and increased tourism, research suggests that visitors will seek additional recreation opportunities outside of the National Park System (White et al., 2016). As a result, more visitors are seeking less-developed recreation areas to find solitude from the high crowding at popular recreation sites. These predictions are consistent with observations in ZNP, located in Washington and Iron County, which places a greater potential of increased recreation east of the I-15 corridor in Iron and Beaver counties (Leaver & Pace, 2021). Mountain bike use on natural surface trails in the United States has increased from 6.9 to 9.3 million users per year since 2011 (Statista, 2024).

TRAFx trail counter data analysis has shown that on average, weekday use numbers on trails are similar to weekend day use, with many weeks of the year showing highest days of use being weekdays. The most frequent use times are between 5:00pm – 7:00pm. This data indicates a likelihood that a large percentage of the use on trails is local use compared to visitors who would be more likely to use the trails on weekend days. This is likely due to the trail systems being adjacent to, or very close to communities in Iron and Beaver Counties. The BLM has utilized data provided from online fitness tracking applications to better understand types of use in trail systems. In 2024, Strava Metro data showed that e-bike use accounted for 7.2% (increasing from 1.6% in 2020) of the cycling activities tracked in Iron County. It is important to note that not all trail users are tracking their activities with applications such as Strava. In rural areas, only 1.5% to 6% of the total users of a trail track their data on the Strava app (Headwaters Economics, 2018). By analyzing the existing fitness application data and incorporating BLM observation, it is apparent that, regardless of current management controls, there is a significant amount of unauthorized e-bike use already occurring throughout the CCFO trail systems.

Figure 2. Trail Counter Data from the Iron Hills, Beaver Bench, and Three Peaks Mountain Bike Trail Systems

Back

Master Summary

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Year	Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ADT†	ADT†x365	Days with data
2019	Green Hollow Trail IR				*2,170**	2,256	188,483	145,577	2,279	1,816	5,991	15,986	4,303	1,462.649	*533,867*	251
	Southview Trail Counter	190	218	411	1,466	1,366	2,818	2,086	1,595	1,852	1,858	899	190	40.956	14,949	365
	Three Peaks MTB Trail Counter[D]	83	17	159	278	256	512	388	366	561	869	185	65	10.244	3,739	365
2020	Green Hollow Trail IR	1,012	512	129	1,042	2,672	2,018	1,840	1,294	1,045	1,043	636	426	37.347	13,669	366
	Mammoth Crossing Trail Counter[D]									*570**	837	647	309	19.479	*7,129*	94
	Southview Trail Counter	179	109	219	2,076	3,332	2,641	2,195	*1,695**					50.532	*18,495*	216
	Three Peaks MTB Trail Counter[D]	138	194	353	915	960	695	653	533	687	564	278	230	16.940	6,200	366
2021	Green Hollow Trail IR	310	213	285	1,393	1,795	1,259	893	935	*1,016**	774	751	235	26.550	*9,691*	342
	Mammoth Crossing Trail Counter[D]	233	281	349	957	1,525	837	773	676	730	593	734	207	21.630	7,895	365
	Southview Trail Counter										*918**	1,629	486	33.784	*12,331*	74
	Three Peaks MTB Trail Counter[D]	241	*280**			*389**	466	443	486	*326**	*313**	177	95	10.535	*3,845*	260
2022	Green Hollow Trail IR	128	153	197	892	6,759	25,226	782	500	728	919	264	68	100.318	36,616	365
	Mammoth Crossing Trail Counter[D]	90	399	151	5,782	941	540	442	425	357	816	720	230	29.844	10,893	365
	Pyramid Ridge Trail Counter					*31,452**	54,413	34,768	*13,420**		*1,077**	148	94	646.470	*235,961*	181
	Southview Trail Counter	193	182	385	2,077	2,825	2,831	2,213	2,587	2,343	1,969	309	143	49.471	18,057	365
	Three Peaks MTB Trail Counter[D]	*1,850**					*45,763**	8,245	921	953	1,399	911	626	218.027	*79,580*	226
2023	Beaver NICA Trail Counter							*705**	*279**	*4,007**	178	105	57	24.141	*8,811*	135
	Green Hollow Trail IR	134	65	25	342	1,176	1,099	769	733	926	5,681	642	78	31.973	11,670	365
	Mammoth Crossing Trail Counter[D]	356	681	141	437	569	933	487	*266**	*388**	*597**	317	195	15.060	*5,497*	331
	Pyramid Ridge Trail Counter	65	0	155	1,380	1,659	1,269	816	1,090	1,315	1,310	606	536	27.948	10,201	365
	Southview Trail Counter	63	79	74	1,268	2,765	2,938	2,494	2,195	2,500	2,584	1,142	379	50.633	18,481	365
	Three Peaks MTB Trail Counter[D]	374	389	737	2,290	2,822	8,876	2,167	*2,394**	1,699	2,174	819	922	70.034	*25,562*	351
2024	Beaver NICA Trail Counter	*812**	52	75	130	184	181	244	328	4,277	356	*113**		20.419	*7,473*	327
	Green Hollow Trail IR	98	81	64	811	1,141	900	579	606	708	557	*425**		17.957	*6,572*	323
	Mammoth Crossing Trail Counter[D]	*209**	266	493	450	605	329	422	264	419	404	*651**		13.400	*4,904*	325
	Pyramid Ridge Trail Counter	184	177	469	1,209	1,888	1,477	817	1,074	1,114	1,203	470	*450**	30.003	*10,981*	337
	Southview Trail Counter	*229**	*220**	564	2,184	2,564	2,409	1,614	2,341	2,495	*1,569**	508	*233**	51.551	*18,868*	321
	Three Peaks MTB Trail Counter[D]	397	599	1,065	2,446	2,239	3,079	3,891	2,374	2,145	1,360	*730**		61.112	*22,367*	331

ADT† = Average Daily Traffic

* = based upon that month's ADT Learn more Indicates months with less than 6 days of data.

[D] = divide by 2 applied Learn more

* Trail counters can produce false readings at times. Numbers shown are estimates and not exact representations of trail usage.

- **3.2.2 Impacts from the Proposed Action**

Although trends show that visitor use in general will likely continue to increase, it is difficult to determine how the proposed action will affect use numbers for multiple reasons. One reason is that e-bike use is already happening on CCFO trails. Through recreation specialist observation, use of fitness tracking application data and trail camera data, it is apparent that there is already significant e-bike use on the trails. The percentage of trail users currently illegally using e-bikes on trail compared to the percentage of individuals that currently aren't riding e-bikes on trail, but who would choose to if the use was authorized is unknown. Another reason this is problematic to determine is that the data associated with this topic is difficult to record and obtain.

Due to changing technology and use trends there hasn't been much relevant data collected in locations that have chosen to authorize e-bikes at this time. However, there have been studies that have collected data and findings on whether individual use increases when one purchases an e-bike compared to their use on a traditional bike. A 2020 study tracked individuals who formerly used traditional bikes but had purchased e-bikes. The results of the study found that on average, those riding e-bikes' typical range of bike rides grew from 2.1 to 9.2km per day (Fyhri, Sundfor 2020). A Colorado study asked participants what their intended use of an e-bike would be and 78% of people surveyed mentioned that they would use the bike to increase distance

traveled (Perry & Casey, 2021). While it is unknown whether there will be a change in use numbers on trails as a result of implementation of the proposed action, it is appropriate to expect that e-bike use compared to traditional bike use will result in an increase in trail miles being ridden per day. It should be noted that these studies primarily focus on urban commuter type e-bike use, it is unclear how these observations translate to natural surface trails uses.

While the trail systems within the CCFO have been designed to sustain heavy visitor use, trailhead infrastructure in some areas is beginning to become inadequate due to rising use trends. A study in Sweden looked to answer if there was a correlation between the use of e-bikes and a reduction in vehicle use. The study found that in rural areas the e-bike substituted 71–86% of car trips compared to 42–60% of car trips in urban areas (Hiselius, Svensson, 2017). As cited previously, studies found that e-bike riders typically increased their traditional bike range from an average of 2.1 – 9.2km per day. Data showing a decrease in short vehicle trips and an increase in typical distance ridden could suggest that the proposed action would result in a reduction in numbers of those typically driving to CCFO trailheads, consequently reducing pressure on trailhead infrastructure. When those surveyed in Colorado were asked about their intended use of an e-bike, 59% said they would use it to start riding to the trailhead from home. Adaptive management strategies would be used to increase capacity of existing trailheads or plan for the construction of new trailheads if stresses on existing infrastructure are observed as a result of the Proposed Action.

Figure 3. Trailhead Proximity to City Property

Trailhead	*Trail System*	*Approximate Distance to City Property*
Pyramid Ridge Trailhead	Iron Hills Trail System	0.3 miles
Southview Trailhead	Iron Hills Trail System	Within City Limits
"C" Trailhead	Iron Hills Trail System	Within City Limits
"C" Overlook Trailhead	Iron Hills Trail System	1.68 miles
Greens Lake Trailhead	Iron Hills Trail System	1.04 miles
Red Hollow Trailhead	Thunderbird Canyons Trail System	Within City Limits
Thunderbird Gardens Trailhead	Thunderbird Canyons Trail System	Within City Limits
13th Hole Trailhead	Thunderbird Canyons Trail System	Within City Limits
Enoch Bench Trailhead (Proposed)	Enoch Bench Trail System	Within City Limits
Parowan Canyon Trailhead	Evil Water Trail System	1 mile
Three Peaks MTB Trailhead	Three Peaks MTB Trail System	7.5 miles
Mammoth Crossing Trailhead	Beaver Bench Trail System	0.87 miles
Table Top Trailhead	Beaver Bench Trail System	0.95 miles

*figures are approximate straight-line distances and do not represent distance when traveling on roads or paved trails.

3.2.3 Impacts from the No Action Alternative

Under the No Action Alternative, use numbers in the identified trail systems will continue to follow the existing trends. Changes in use directly associated with illegal Class 1 e-bike use would continue to be difficult to accurately gather due to the complicated nature of collecting this data.

- **3.2.4 Cumulative Impacts**

The purpose of the BLM's decision to implement 43 CFR Part 8340 (the E-Bike Rule) was to increase recreation opportunities through the authorization of e-bikes. The Federal Register Notice posted regarding this rule stated that, "Under the final rule, the use of an e-bike could cause increased ridership on these roads or trails." (BLM, 2020). The trails throughout the CCFO have been designed and constructed following the International Mountain Bicycling Association's (IMBA) and BLM *Guidelines for a Quality Trail Experience* and IMBA's *Mountain Bike Trail Development Guidelines*, which have been accepted internationally as a standard for trail planning, development and management. In these documents, IMBA and the BLM define standards for creating sustainable trails and illustrates techniques for design and construction such as using grade reversals, the half-rule max sustainable grade, and speed control methods. Trail design and construction using this guiding document has proven to create trail networks that can sustain high levels of use with minimal maintenance needs. Further, some of the adaptive management strategies identified in the proposed action, such as implementing directional trails and the construction of more trail miles, will be utilized to mitigate any potential impacts if increases in trail use are noticed regardless of whether the CCFO decides to implement the proposed action or not. A future increase in trail use is not expected to create negative impacts now or in the reasonably foreseeable future.

3.3 Statement 2: How will authorizing e-bike use impact trail user experiences?

- **3.3.1 Affected Environment**

Since implementation of the trail systems, public feedback has been gathered using the following methods:

- Input received on trail registers at trailheads.
- Communication with members of the public during community volunteer events.
- Monitoring social media interest group pages.
- Reviewing public comments on non-government online applications such as Trailforks and MTB Project.
- Tracking local volunteer efforts.

Overall, continued local volunteer involvement exceeding 600 hours per year and increasing visitor use suggests that experiences have been positive. Direct feedback related to user experience has been positive with the most common input being requests for more trails. While little negative feedback has been received, a high percentage of the negative comments have been related to the vegetation overgrowth issues in the Beaver Bench Trail System happening as a result of low visitor use. The CCFO commonly receives phone calls from members of the public asking if they can use their e-bikes on trails within the field office.

- **3.3.2 Impacts from the Proposed Action**

It is expected that those who currently oppose e-bike use on trails will feel some level of impact to user experience if e-bike use is authorized, though these impacts could be mitigated with the adaptive management strategies defined in Chapter 1. While some traditional bike users opposed

to e-bike use may experience an impact to their trail experience as a result of the proposed action, a study in Durango, CO found that of study participants, nearly all non-motorized trail users stated that they would continue to use the trails if e-bikes were permitted (Clay, 2022). As a conclusion to this study, experts stated "Trail crowding (which was the main concern related to experience of those opposed to e-bikes in this study) will occur with or without eMTB's. The solution is not to restrict access, but to build more trails."

For trail user experience to be impacted, trail users will need to know that a bike that they are passing is an e-bike, which has shown to be difficult to discern, especially in most trail corridor settings. During the previously mentioned Colorado study, surveys were conducted to analyze people's perceptions during an e-bike on trails trial period. The study found that most respondents, whether opposed to e-bikes or not, reported that they did not notice any eMTB's on the trail despite the fact that there were eMTB riders present. This same study found that during the public comment period, the most common topic that individuals identified as a perceived issue was excessive speeds of e-bikes. A review on e-bike safety prepared for PeopleForBikes analyzed multiple studies that recorded data on e-bikes compared to traditional bikes. This analysis noted that while Class 1 e-bikes have a max motor use speed of 20mph, riders are rarely riding at this max speed. The compilation of multiple studies on speeds found that there is only an average difference in speeds of 1.8mph when comparing e-bikes to traditional bikes (Cherry & MacArther, 2019).

A 2019 study on people's perceptions of e-bikes and e-bike use highlighted that most of the respondent's concerns about e-bikes on non-motorized trails revolved around trail access and impact. The respondents in this study that were opposed to e-bike use worried that an increase in eMTB's may lead to a loss of trail access for all mountain bike users (Chaney, 2019). The proposed action would not restrict or reduce any trail access.

Better Experiences and Inclusivity for the Disability Community: Recreation For All

It is likely that the Proposed Action would result in a positive impact for those in the disability community and for those that require a Class 1 e-bike to recreate due to mobility issues. The purpose and need of the proposed action is to increase recreation opportunities for all members of the public on BLM lands. The lack of trails that e-bike use is authorized on throughout the U.S. has created ever growing issues for members of the public that need adaptive equipment to recreate on trails and for those that need Class 1 e-bikes due to mobility issues.

Figure 4. Disability Information from 2020 Census in Iron County, UT

DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION		
Population 5 to 20 years	**10,418**	**100.0**
With a disability	784	7.5

Population 21 to 64 years	**17,149**	**100.0**
With a disability	2,239	13.1
Percent employed	60.2	(X)
No disability	14,910	86.9
Percent employed	76.3	(X)
Population 65 years and over	**2,755**	**100.0**
With a disability	1,100	39.9

*2020 U.S. Census Data – Iron County, UT

The technology of adaptive mountain bikes, such as those from companies like Bowhead Corps, ReActive Adaptations, and Lasher, has increased tremendously. Adaptive mountain bikes are now more capable than ever, allowing those with disabilities more opportunities to get out and recreate on the same trails that able-bodied individuals commonly use. While some adaptive mountain bikes are solely propelled by a hand crank, many of these bikes utilize an electric motor. In 2011, the Department of Justice created a law defining *Other Power-driven Mobility Devices* (OPDMD), which adaptive mountain bikes meet the definition of, that specified that OPDMD's could be used by individuals with mobility disabilities on any trails regardless of if the trail was intended for motorized or non-motorized use. Unfortunately, members of the public often are not aware of these definitions or this law, and each year there are countless accounts via videos and online blogs of individuals with disabilities being harassed on non-motorized trails. These incidents of harassment stem from the common perception that the person with a disability's equipment has a motor and is not allowed on a non-motorized trail. Some adaptive equipment users have noted that they actively avoid recreating in some areas due to the fear of harassment and the feeling of exclusion.

The BLM has also begun to receive an increasing number of Reasonable Modification requests in areas that receive high mountain bike use. These requests are coming from the basis that individuals are claiming that age, fitness, or other mobility issues have led to "mobility disabilities" and are requesting that their Class 1 e-bike be considered an OPDMD because it would be the only means to allow them the opportunity to access trails. While public education on this topic is necessary, it is expected that authorizing Class 1 e-bikes on trails would reduce the confusion on what equipment is allowed or not on trails, consequently enhancing the

experience and providing more recreation opportunities for adaptive equipment users and those needing a Class 1 e-bike to recreate. The purpose and need of the proposed action to increase inclusivity and equity aligns with "Recreation for All," another one of the strategic pillars for the agency's *21st Century Blueprint for Outdoor Recreation.*

- **3.3.3 Impacts from the No Action Alternative**

Under the No Action Alternative, current trail user experiences would remain the same. Individuals using adaptive mountain bikes may still experience user conflicts and individuals with mobility issues would still need an Authorized Officer approved Reasonable Modification request to use their Class 1 e-bike on CCFO trails.

- **3.3.4 Cumulative Impacts**

The introduction of e-bikes on natural surface trails has followed a similar initial pattern as when snowboards were introduced at ski resorts, another example of initial negative perceptions of a new type of use that has become much more accepted over time. Many studies on people's perceptions of e-bikes have found that those that have seen e-bikes on trails tend to be more tolerant of e-bike use than those who said they had not yet seen e-bikes on trail.

When analyzing studies on perceptions that have been done over the last ten years, respondents with positive attitudes towards e-bikes and e-bike users have tended to increase over time. Factors such as proper trail network design, adaptive management tools, as well as trail user's increasing acceptance of Class 1 e-bikes support the CCFO's acknowledgement that no cumulative impacts are expected.

3.4 Statement 3: How will authorizing e-bike use impact trail tread surface and maintenance needs?

- **3.4.1 Affected Environment**

Trail tread surfaces throughout the CCFO have experienced different levels of maintenance needs since initial construction. Maintenance needs are often tied to soil types, trail design, level of trail builder experience, and the amount of use the trails are receiving. The professionally designed and constructed trails in the Iron Hills National Recreation Trail System and the Beaver Bench Trail System have shown to hold up the greatest to natural weather events when compared to other trail systems in the CCFO. The Three Peaks Mountain Bike Trail System soils consist of decomposed granite and tend to develop tread better when wet but become very sandy and lead to increased soil displacement when dry. Thunderbird Canyons and Evil Water Trail Systems contain erosive soils and commonly show signs of erosion after heavy storms. Soils throughout the proposed Enoch Bench Trail System are similar to those in the Iron Hills National Recreation Trail System. The Beaver Bench and Evil Water Trail Systems both currently require frequent tread vegetation removal due to the current lack of recreation use.

Trails throughout the Cedar City area have received much attention by local volunteers. Iron Trailcraft, the local IMBA chapter volunteer organization, currently spends more than 600 hours per year working on public lands trails in and around Cedar City. The majority of the contributed work this organization completes is in the Iron Hills Trail System, Three Peaks Mountain Bike Trail System, and Thunderbird Canyons Trail System.

- **3.4.2 Impacts from the Proposed Action**

As with all recreation pursuits regardless of what type of use, mountain biking contributes some degree of environmental degradation (Marion and Wimpey, 2017). An IMBA research review found that there are no scientific studies that show that mountain bikers cause more wear on trail than other users (Sprung, 2018). IMBA conducted a study in 2015 to analyze the environmental impacts of soil displacement and erosion on bike-optimized trails. In this study, a test site was identified and both an e-bike and traditional bike rode 500 laps through multiple sections of trail. Impacts to trail tread surface were analyzed on a roadbed climb, a bermed turn entrance, and a bermed turn exit. These three trail features were thought to be the typical trail features that would best illustrate differences in results from the two types of bikes, if any. The study found that there were some differences between the impacts of Class 1 e-bikes and those of traditional mountain bikes. It was noted that these differences were mainly found in trail segments with turns or grade changes. IMBA was unable to identify the direct cause of these differences but explained that the differences were typically shown in locations where braking was likely occurring. Trail segments where braking is occurring implies that speed is a variable at play. Traveling speed was not tracked in this study and speeds are expected to differ from rider to rider regardless of what type of bike is being used. At the conclusion of this study, IMBA stated that the eMTB soil displacement measured in this study was not significantly different (statistically) from that associated with traditional mountain bikes. This study was conducted in a much wetter environment than the affected environment of the Proposed Action. Trail degradation has shown to be much more significant in wet environments (Wilson and Seney, 1994). A parallel correlation of use levels and impacts to tread surface is commonly expected with any trail. The concept of the level of impacts to tread surface and the concept of increases in traditional and e-bike use are expected to have a linear relationship, where if levels of trail use increases, impacts to tread surface will as well. Trail tread maintenance needs will continue as a result of overall trail use, not specific to e-bike use.

- **3.4.3 Impacts from the No Action Alternative**

Under the No Action Alternative, annual trail maintenance needs would likely remain the same. If illegal e-bike use or regular mountain bike use rises in the future, tread maintenance needs are expected to rise.

- **3.4.4 Cumulative Impacts**

Any level of trail use will result in some level of trail degradation, and trail maintenance plans are necessary to ensure long-term sustainability. The relationship between ecological change and recreation use follows a curvilinear pattern, and that the majority of change typically occurs

during initial use, with additional use resulting in minimal change (Monz, 2021). If ecological impacts are identified after initial use following the implementation of the proposed action, adaptive management strategies will be implemented and little change is expected to follow. For these reasons, no cumulative impacts are expected now or in the reasonably foreseeable future.

3.1.2.1. *Methodology*

The BLM analyzed potential impacts from visitor use trend data collected by the Cedar City Field Office and the use of relevant research on the topic. Scientific and social research studies conducted from 1994 – 2023 were analyzed and referenced. Research findings were analyzed from visitor use data collection, soils impact analysis, and social perception studies. While most of the research analyzed was from within the United States, some studies from Europe were utilized. Data collected from outside of the United States was utilized since the introduction of Class 1 e-bikes in Europe gained popularity in the early 1990's, allowing for more long-term research to be gathered relevant to the Proposed Action.

CHAPTER 4. PUBLIC COMMENT, CONSULTATION AND COORDINATION

4.1. Public Comments

4.2. Consultation and Coordination

Consultation and coordination pertinent to cultural and wildlife resources is discussed in the Interdisciplinary Team Checklist located in Appendix C.

The BLM is unaware of an inconsistences in the Proposed Action with state or local land use planning intended for the protection of the human and natural environment.

CHAPTER 5. LIST OF PREPARERS

A list of individuals who participated in the drafting, analysis, and review of this EA is included in the Interdisciplinary Checklist located in Appendix C.

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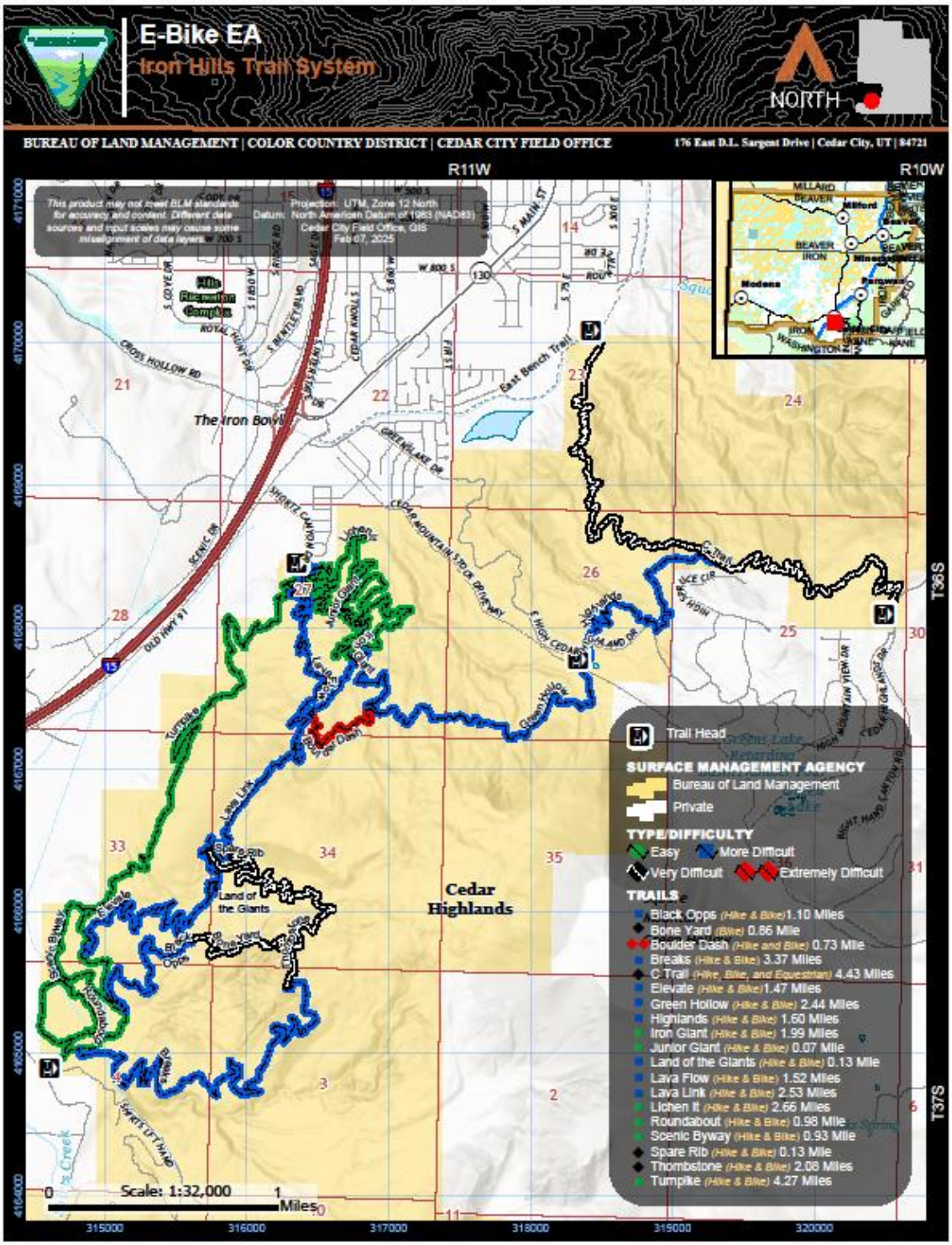
APPENDIX A:

Maps


E-Bike EA
Iron Hills Trail System
NORTH
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R11W
R10W
T36S
T37S
Projection: UTM, Zone 12 North
Datum: North American Datum of 1983 (NAD83)
Cedar City Field Office, GIS
Feb 07, 2025
The Iron Bowl
Cedar Highlands
Land of the Giants
East Bench Trail
Trail Head
SURFACE MANAGEMENT AGENCY
Bureau of Land Management
Private
TYPE/DIFFICULTY
Easy
More Difficult
Very Difficult
Extremely Difficult
TRAILS
Black Opps (Hike & Bike) 1.10 Miles
Bone Yard (Bike) 0.86 Mile
Boulder Dash (Hike and Bike) 0.73 Mile
Breaks (Hike & Bike) 3.37 Miles
C Trail (Hike, Bike, and Equestrian) 4.43 Miles
Elevate (Hike & Bike) 1.47 Miles
Green Hollow (Hike & Bike) 2.44 Miles
Highlands (Hike & Bike) 1.60 Miles
Iron Giant (Hike & Bike) 1.99 Miles
Junior Giant (Hike & Bike) 0.07 Mile
Land of the Giants (Hike & Bike) 0.13 Mile
Lava Flow (Hike & Bike) 1.52 Miles
Lava Link (Hike & Bike) 2.53 Miles
Lichen It (Hike & Bike) 2.66 Miles
Roundabout (Hike & Bike) 0.98 Mile
Scenic Byway (Hike & Bike) 0.93 Mile
Spare Rib (Hike & Bike) 0.13 Mile
Thombstone (Hike & Bike) 2.08 Miles
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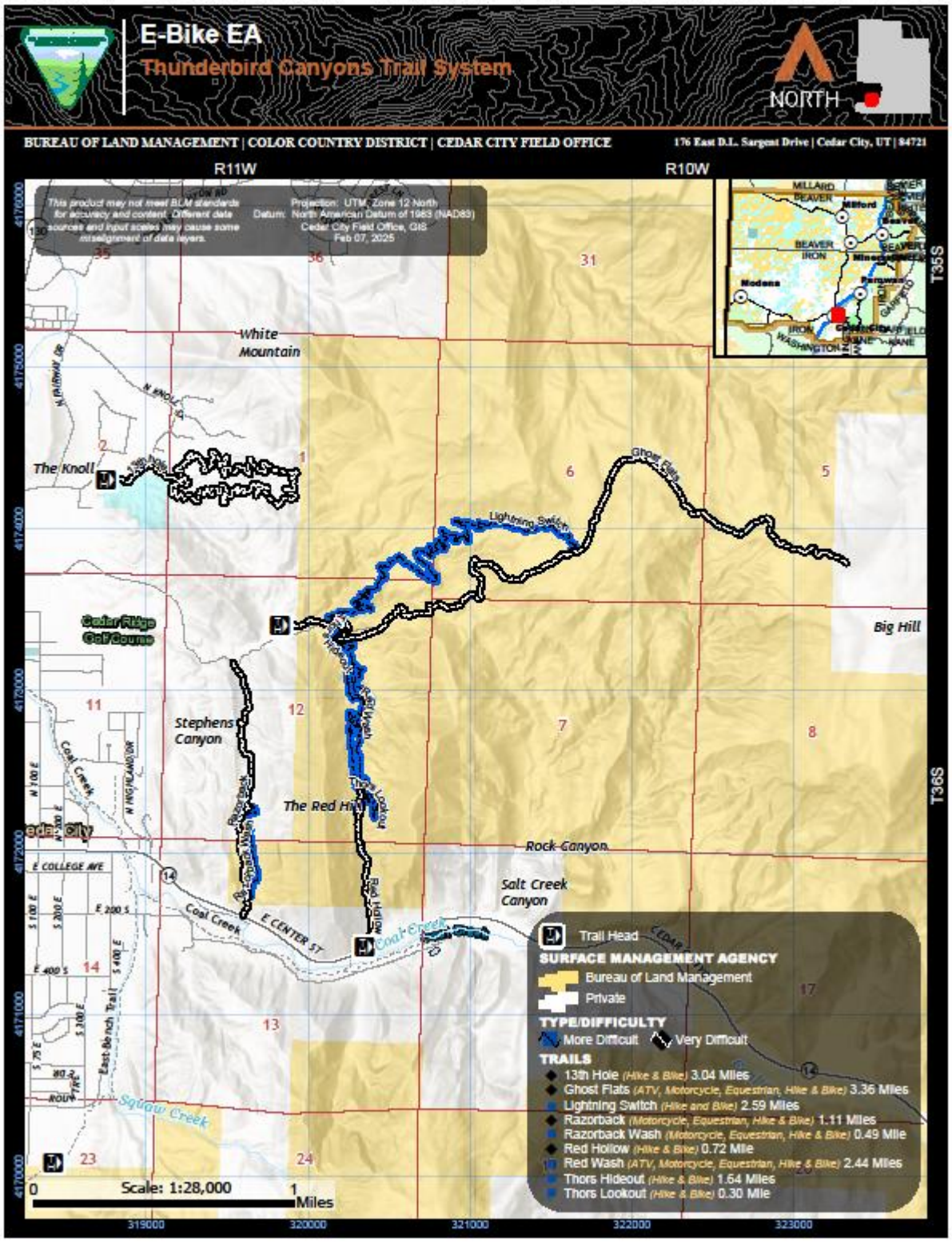
E-Bike EA
Thunderbird Canyons Trail System
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Projection: UTM, Zone 12 North
Datum: North American Datum of 1983 (NAD83)
Cedar City Field Office, GIS
Feb 07, 2025
White Mountain
The Knoll
Cedar Ridge Golf Course
Stephens Canyon
The Red Hill
Rock Canyon
Salt Creek Canyon
Big Hill
Ghost Flats
Lightning Switch
Razorback
Razorback Wash
Red Hollow
Thors Lookout
Coal Creek
Squaw Creek
E CENTER ST
E COLLEGE AVE
East Bench Trail
Trail Head
SURFACE MANAGEMENT AGENCY
Bureau of Land Management
Private
TYPE/DIFFICULTY
More Difficult
Very Difficult
TRAILS
13th Hole (Hike & Bike) 3.04 Miles
Ghost Flats (ATV, Motorcycle, Equestrian, Hike & Bike) 3.36 Miles
Lightning Switch (Hike and Bike) 2.59 Miles
Razorback (Motorcycle, Equestrian, Hike & Bike) 1.11 Miles
Razorback Wash (Motorcycle, Equestrian, Hike & Bike) 0.49 Mile
Red Hollow (Hike & Bike) 0.72 Mile
Red Wash (ATV, Motorcycle, Equestrian, Hike & Bike) 2.44 Miles
Thors Hideout (Hike & Bike) 1.64 Miles
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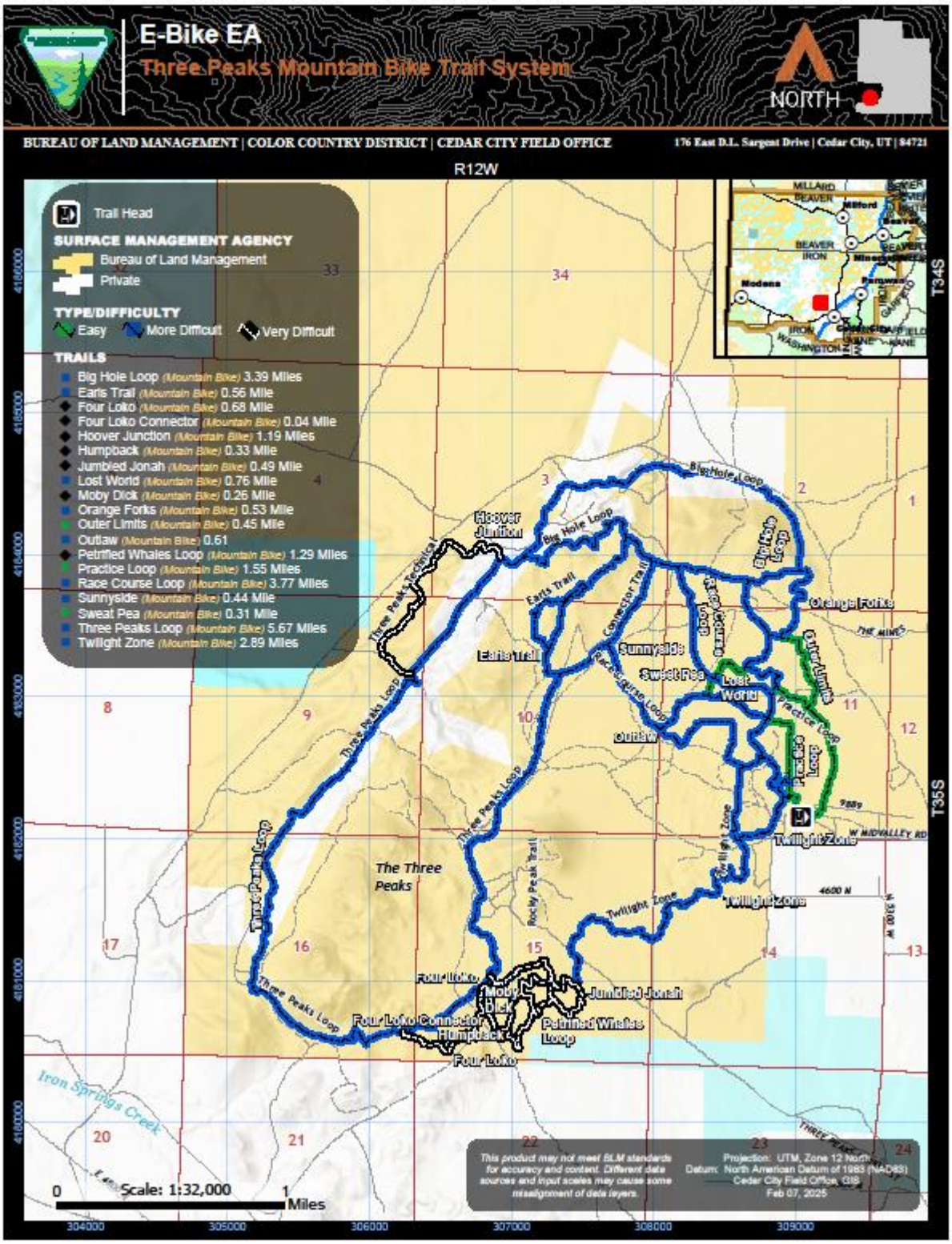
E-Bike EA
Three Peaks Mountain Bike Trail System
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Trail Head
SURFACE MANAGEMENT AGENCY
Bureau of Land Management
Private
TYPE/DIFFICULTY
Easy
More Difficult
Very Difficult
TRAILS
Big Hole Loop (Mountain Bike) 3.39 Miles
Earls Trail (Mountain Bike) 0.56 Mile
Four Loko (Mountain Bike) 0.68 Mile
Four Loko Connector (Mountain Bike) 0.04 Mile
Hoover Junction (Mountain Bike) 1.19 Miles
Humpback (Mountain Bike) 0.33 Mile
Jumbled Jonah (Mountain Bike) 0.49 Mile
Lost World (Mountain Bike) 0.76 Mile
Moby Dick (Mountain Bike) 0.26 Mile
Orange Forks (Mountain Bike) 0.53 Mile
Outer Limits (Mountain Bike) 0.45 Mile
Outlaw (Mountain Bike) 0.61
Petrified Whales Loop (Mountain Bike) 1.29 Miles
Practice Loop (Mountain Bike) 1.55 Miles
Race Course Loop (Mountain Bike) 3.77 Miles
Sunnyside (Mountain Bike) 0.44 Mile
Sweat Pea (Mountain Bike) 0.31 Mile
Three Peaks Loop (Mountain Bike) 5.67 Miles
Twilight Zone (Mountain Bike) 2.89 Miles
Hoover Junction
Big Hole Loop
Earls Trail
Connector Trail
Race Course Loop
Orange Forks
Outer Limits
Practice Loop
Sunnyside
Sweat Pea
Lost World
Outlaw
Three Peaks Loop
Three Peaks Practice Loop
Twilight Zone
Rocky Peak Trail
The Three Peaks
Four Loko
Moby Dick
Jumbled Jonah
Four Loko Connector
Humpback
Petrified Whales Loop
Iron Springs Creek
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Feb 07, 2025
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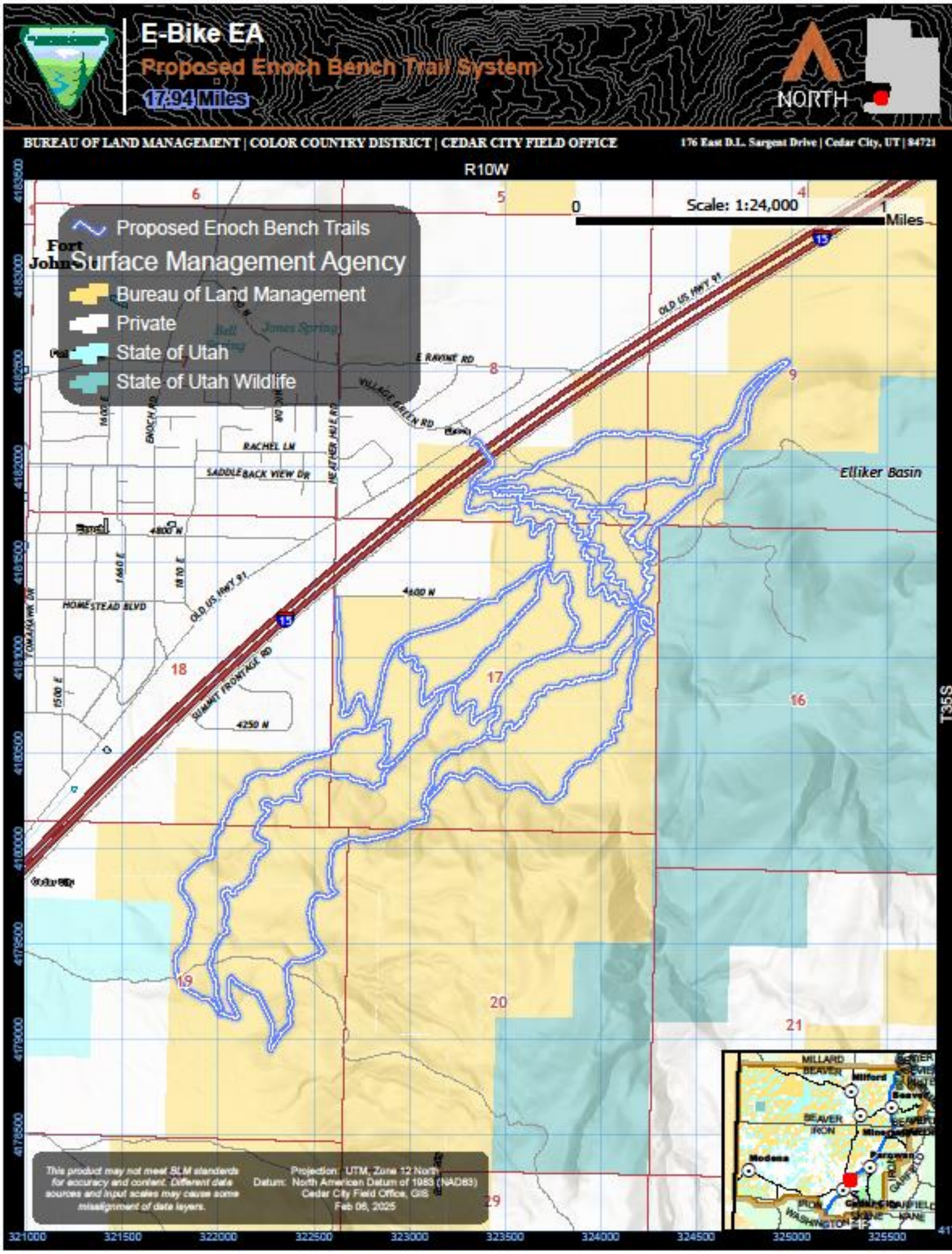
E-Bike EA
Proposed Enoch Bench Trail System
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BUREAU OF LAND MANAGEMENT | COLOR COUNTRY DISTRICT | CEDAR CITY FIELD OFFICE
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Proposed Enoch Bench Trails
Surface Management Agency
Bureau of Land Management
Private
State of Utah
State of Utah Wildlife
Elliker Basin
OLD US HWY 91
SUMMIT FRONTAGE RD
HOMESTEAD BLVD
RACHEL LN
SADDLEBACK VIEW DR
4250 N
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Projection: UTM, Zone 12 North
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Cedar City Field Office, GIS
Feb 06, 2025


E-Bike EA
Evil Water Trail System
NORTH
BUREAU OF LAND MANAGEMENT | COLOR COUNTRY DISTRICT | CEDAR CITY FIELD OFFICE
176 East D.L. Sargent Drive | Cedar City, UT | 84721
R9W
R8W
Trail Head
SURFACE MANAGEMENT AGENCY
Bureau of Land Management
Private
TYPE/DIFFICULTY
Easy
TRAILS
Electric Avenue (Hike & Bike) 1.48 Miles
Megawatt (Hike & Bike) 0.84 Mile
Parowan Creek
Maple Spring Hollow
Megawatt
Electric Avenue
143
T34S
19
30
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Scale: 1:10,000
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0.5
Miles
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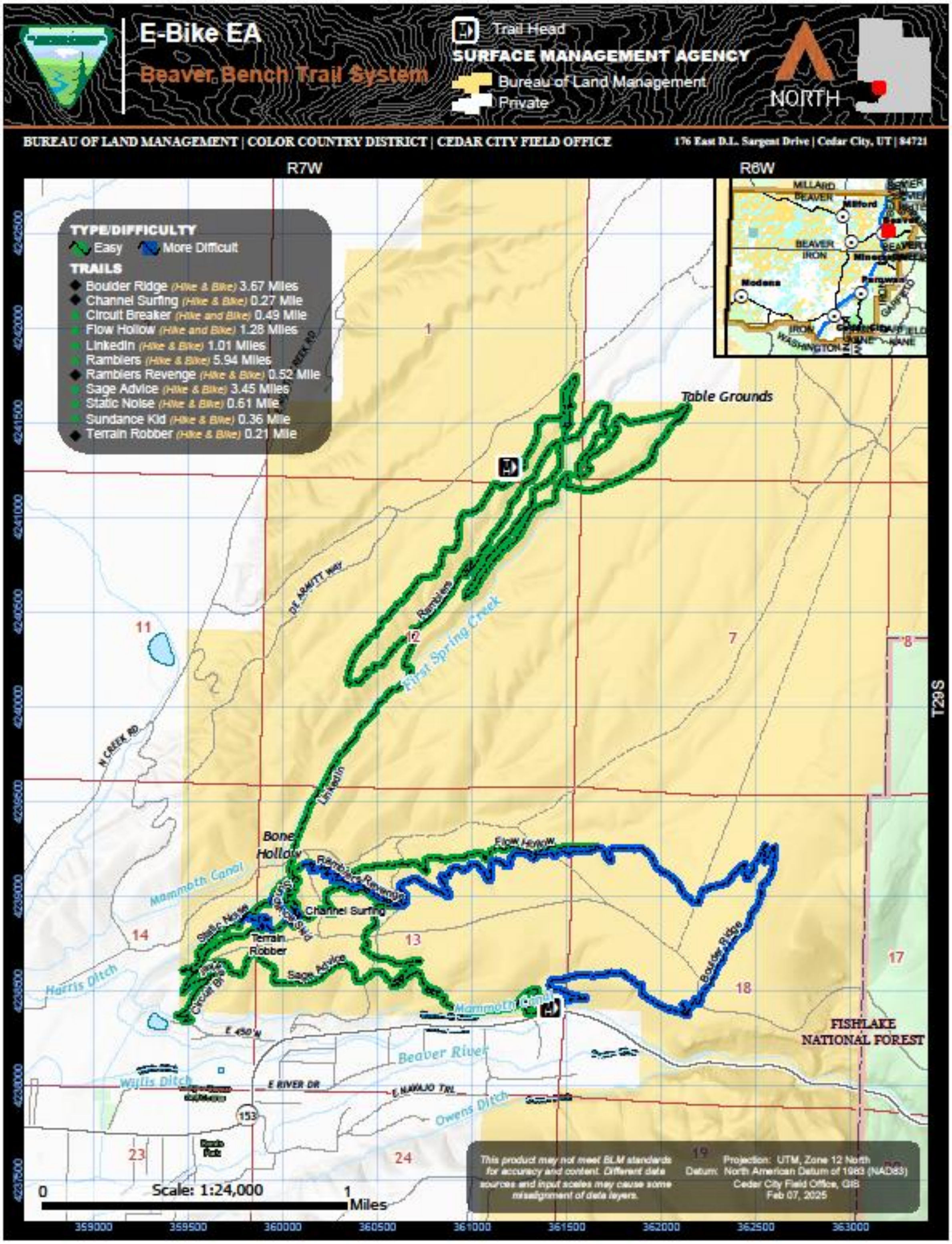
E-Bike EA
Beaver Bench Trail System
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SURFACE MANAGEMENT AGENCY
Bureau of Land Management
Private
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BUREAU OF LAND MANAGEMENT | COLOR COUNTRY DISTRICT | CEDAR CITY FIELD OFFICE
176 East D.L. Sargent Drive | Cedar City, UT | 84721
R7W
R6W
TYPE/DIFFICULTY
Easy
More Difficult
TRAILS
Boulder Ridge (Hike & Bike) 3.67 Miles
Channel Surfing (Hike & Bike) 0.27 Mile
Circuit Breaker (Hike and Bike) 0.49 Mile
Flow Hollow (Hike and Bike) 1.28 Miles
LinkedIn (Hike & Bike) 1.01 Miles
Ramblers (Hike & Bike) 5.94 Miles
Ramblers Revenge (Hike & Bike) 0.52 Mile
Sage Advice (Hike & Bike) 3.45 Miles
Static Noise (Hike & Bike) 0.61 Mile
Sundance Kid (Hike & Bike) 0.36 Mile
Terrain Robber (Hike & Bike) 0.21 Mile
Table Grounds
First Spring Creek
Ramblers
Linkedin
Bone Hollow
Flow Hollow
Ramblers Revenge
Channel Surfing
Static Noise
Terrain Robber
Sage Advice
Boulder Ridge
Mammoth Canal
Harris Ditch
Beaver River
Willis Ditch
Owens Ditch
E RIVER DR
E NAVAJO TRL
153
FISHLAKE NATIONAL FOREST
T29S
Scale: 1:24,000
0
1
Miles
This product may not meet BLM standards for accuracy and content. Different data sources and input scales may cause some misalignment of data layers.
Projection: UTM, Zone 12 North
Datum: North American Datum of 1983 (NAD83)
Cedar City Field Office, GIS
Feb 07, 2025

APPENDIX B: Public Scoping Substantive Comments & BLM's Response or Actions

Comment: It would be helpful to briefly explain why Class 1 e-bikes are being considered and the expected benefits or concerns.

> Response/Action: This is explained in both the background and purpose and need sections of the EA.

Comment: Consider specifying whether the EA is limited to analyzing only Class 1 e-bikes or if future evaluations for Class 2 or 3 could be considered.

> Response/Action: Explained in the Proposed Action.

Comment: The mention of the RTP and the reclassification of trails to "Diverse Use" is important, but it would be helpful to clarify if this designation automatically includes e-bike use or if additional authorization is required.

> Response/Action: "Diverse Use" RTP funds may be used for both motorized and non-motorized trail projects.

Comment: If possible, include data specific to off-road or trail use-bikes.

> Response/Action: The decision will be supported by the most relevant and up-to-date data currently available.

Comment: It may be beneficial to add a brief summary of how Utah's policy aligns (or conflicts) with BLM guidance.

> Response/Action: Both Utah policy and BLM guidance is outlined in the background section of the EA.

Comment: The proposal clearly outlines the specific trails affected, but it could also highlight why these particular trail systems were selected (e.g., existing infrastructure, accessibility, user demand).

> Response/Action: Addressed in section 2.3.1 of the draft EA.

Comment: Specify the criteria or thresholds that would trigger certain actions in implementing adaptive management strategies.

> Response/Action: Thresholds have been incorporated into the Proposed Action.

Comment: Recommends trails within crucial winter range habitat be closed from Dec 1 - Apr 30.

Response/Action: Seasonal closures are not a connected action, similar action, or cumulative action as defined in 43 CFR 1508.24(a) and will not be analyzed in this document.

Comment: Large events should be avoided during hunting season, specifically rifle deer hunt.

Response/Action: Events are reviewed for approval on a case-by-case basis. Additional analysis would occur for any future event proposals.

Comment: The EA should consider cumulative impacts of connecting, adjacent or planned trail systems and increased recreation on wildlife, particularly big game winter ranges.

Response/Action: The EA is analyzing the change of allowable uses on trails and not analyzing new trail construction or trail system expansion.

Comment: Coordinate with the state to have consistent signage.

Response/Action: The BLM is not required to coordinate with the state of Utah on any sign plans on BLM administered lands.

Comment: Set a speed limit that is marked and enforced.

Response/Action: Speeds on trail, regardless of type of bike, are not enforceable. The CCFO will continue to design and construct trails that incorporate natural features, such as narrowing trail segments, utilizing rock "chokes", and keeping sustainable average grades not exceeding 15%, that slow riders to safe speeds.

Comment: Describe the process the BLM will use to develop a range of alternatives. What factors result in the prioritization of e-bike use and what considerations support the expansion of new e-bike trail systems.
• How the benefits of e-bike use authorization are weighed against the potential impacts from e-bike use to ecosystem services and natural resources, such as soil, water, and wildlife.
• How the benefits of e-bike use authorization, such as greater recreational access and new recreational opportunities for e-bike users, are balanced against the needs of other recreational users who may be affected by increased e-bike use, especially those engaging in non-motorized recreational activities.

Response/Action: Only allowing class 1 e-bikes in certain trail systems is discussed in Section 2.3. Impacts to other user groups are addressed in the Proposed Action adaptive management strategy section.

Comment: Recommend consulting the U.S. Forest Service’s recent 2025 E-Bike Use Designation on Select Jackson Area Trails EA, which provides two distinct action alternatives for e-bike use. One which authorizes e-bike use on non-motorized trails and roads, and one which instead expands e-bike trails in areas already managed for motorized use.

Response/Action: Addressed in section 2.3.2 of the draft EA.

Comment: Recommends discussing construction details for the Enoch Bench Trail System (where, timelines, types of equipment).

Response/Action: This document is analyzing the changes of allowable uses, not impacts of new trail construction.

Comment: Include high-resolution maps and GIS shapefiles depicting authorized trails, newly constructed trails and trailheads, trail reroutes, and any other proposed development under each alternative.

Response/Action: We are in the deliberative process and are not required to release the GIS shapefiles at this time.

Comment: Recommends discussion emission-generating activities and provide a roster and schedule for use of equipment needed.

Response/Action: This is not a trail construction document. Emissions related to increased vehicle traffic is mentioned, however, trends suggest that Southern Utah overall vehicle traffic will increase regardless of the authorization of e-bikes.

Comment: Recommends identifying nearby residences and identify BMP's to address impacts. Example, address air emissions from equipment and fugitive dust associated with construction, maintenance, increased traffic, sound impacts and lighting impacts.

Response/Action: This document is analyzing potential impacts of changing the allowable uses on trails. This is not a new trail construction document.

Comment: Recommends section in EA discussing existing aquatic resource conditions (wetlands, riparian, and springs), impacts on aquatic invertebrates and e-bike impacts on watershed conditions.

Response/Action: Aquatic resources are not present in any existing trail corridors.

Comment: Recommends that we analyze impacts to soil conditions and if highly erodible soils will contribute to water quality impairment.

Response/Action: Addressed in impact analysis section of the draft EA. IMBA Guidelines to a Quality Built Trail Environment are used to create trails in the most sustainable locations, resulting in the least amount of soil displacement over time.

Comment: Recommends considering keeping trails closed to e-bikes in areas with biological soil crusts.

Response/Action: After reviewing data from 713 AIM plots across land administered by the Cedar City Field Office, we found that biological soil crusts were present at less than 1% of monitoring sites. As such, we do not believe biological soil crusts to be a resource that requires further analysis relating to trail management.

Comment: Recommends including a monitoring plan.

Response/Action: Monitoring methods are addressed in the adaptive management section of the Proposed Action.

Comment: Recommends analysis of carrying capacity for each trail or trail system using the Interagency Visitor Use Management Council's website.

Response/Action: Addressing carrying capacity could suggest management to limit use of public lands, which is out of the scope of this analysis.

Comment: Recommends analyzing impacts to wildlife and listed species as well as noxious and invasive weeds.

Response/Action: See Interdisciplinary Team checklist attached to the draft EA.

Comment: Addresses signage and outreach to explain trail etiquette guidelines.

Response/Action: Trail etiquette is already depicted through signage at trailheads.

Comment: Incorporate design elements that naturally encourage slower speeds.

Response/Action: These elements are incorporated during trail design and construction phases.

Comment: Requests that we provide SUWA with a copy of the letter from the state reclassifying RTP funded trails. Also requests copy of all trail grant requests and approvals.

Response: This request would need to be formally submitted through a Freedom of Information Act (FOIA) request.

Comment: Recommended compliance with 43 CFR 8341.2(a).

Response: The BLM is already mandated to comply with any CFR’s.

Comment: Conflicts between eMTB and other trail users on non-motorized trails must be analyzed in the Draft EA.

Response/Action: Potential conflicts with other user groups is addressed in section 2.2.1 of the draft EA.

Comment: EA must address potential consequences of riders on eMTB's of an unapproved class (2 or 3).

Response/Action: Law Enforcement Officers will enforce trail use violations pursuant to 43 CFR 8341.

Comment: Draft must disclose and analyze the safety, user conflict, and environmental impacts associated with the reasonable expectation that riders of other eMTB classes, or riders who have hacked their e-bike's speed governing system, would access the proposed class 1 eMTB systems and cause user conflicts, create unsafe conditions, and cause excessive environmental damage.

Response/Action: This document is analyzing the potential impacts of allowing class 1 e-bikes on trails. It is not addressing potential illegal manipulation of equipment.

Comment: BLM should obtain concurrence from the AD, National Conservation Lands and Community Partnerships.

Response/Action: The BLM no longer needs AD concurrence for the decision to be made.

Comment: No purpose and need in scoping. Identified that it appears that the purpose may be based on increasing popularity and economics. Highlighted the local bike shop sales stat and claimed that since it was majority commuter bikes that it isn't a valid need.

Response/Action: Purpose and Need is addressed in the draft. The economic data is not highlighting the economic value of the bikes, but rather showing use trend data.

Comment: BLM must analyze a range of alternatives. Suggested no action, opening only one or a few trail systems to eMTB use, making all eMTB trails one directional, and opening only select trails within each system to eMTB use. Suggested using Enoch Bench as the only eMTB trail system since they claim that there are different trail requirements for a eMTB and that system could be constructed to eMTB specifications.

Response: This is addressed in the proposed action section of the draft EA.

Comment: BLM must prepare a separate EA to analyze the Enoch Bench Trail System.

Response: The Enoch Bench Trail System was approved in document DOI-BLM-UT-C010-2018-0061-DNA.

Comment: The proposal is too broad. Need to define which trail they could be used on now and that all future trails to be identified must be evaluated for use of e-bikes.

Response/Action: The proposed action states, "Any future trails to be added to the identified trail systems would allow for e-bike use. If the BLM decides to construct new trail systems that are not identified in this document, a separate analysis would be completed to analyze for allowing e-bike use."

Comment: All areas that are considered non-motorized now (wilderness or have wilderness character, perhaps roadless, maybe monuments) should remain closed to e-bikes.

> Response: The proposed action is not considering allowing e-bikes in any areas designated as wilderness or Lands with Wilderness Characteristics.

Comment: Non-motorized trails that have long (>100m), steep (>8%), narrow passage (especially to gain speed going downhill) should be removed from consideration.

> Response/Action: This is addressed in the "Alternatives considered but removed from analysis" section.

Comment: It would be helpful notification could be offered when trails are going to be closed, particularly for events.

> Response: EA notes that the public would be notified prior to implementing any temporary closures as required by the CFR.

Comment: I would like you to consider Class 2 e-bikes along with the class 1 currently being considered.

> Response/Action: Class 2 have throttles, making increases in speed more uncontrollable for some. Class 3 are capable of propelling the rider at higher speeds which would present safety concerns. Class 2 and 3 e-bikes are still authorized on all of Cedar City and Beaver City's paved bike paths.

APPENDIX C: Interdisciplinary Team NEPA Checklist

INTERDISCIPLINARY TEAM NEPA CHECKLIST

Project Title: E-bikes on Trails
NEPA Log Number: DOI-BLM-UT-CO10-2025-0014-EA
File/Serial Number:
Project Leader: Mike Innes

DETERMINATION OF STAFF: ***(Choose one of the following abbreviated options for the left column)***

NP = not present in the area impacted by the proposed or alternative actions
NI = present, but not affected to a degree that detailed analysis is required
PI = present with potential for relevant impact that need to be analyzed in detail in the EA. **The NEPA Handbook states that issues need to be analyzed in detail if: 1) Analysis of the issue is necessary to make a reasoned choice between alternatives; 2) The issue is significant...or where analysis is necessary to determine the significance of impacts.**
NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form.

RESOURCES AND ISSUES CONSIDERED:

Determination	Resource	Rationale for Determination	Signature	Date
NI	Air Quality	Any impacts to air quality from fugitive dust generated by mountain biking activities on trails would be temporary and localized. Moreover, whatever impacts to air quality that mountain biking on trails contribute, are already present, and would not be expected to increase beyond temporary and localized due to added use of class-1 e-bikes.	Ryan Oberhelman	4/16/2025
NP	Areas of Critical Environmental Concern	There are no ACECs within the Cedar City Field Office	Ryan Oberhelman	4/16/2025
NI	Cultural Resources	All existing trails within the trail system have been subjected to previous cultural resources inventories. All proposed trails will also be subjected to inventory and consulted on the potential impacts to cultural resources as part of that undertaking. As no changes to existing trails are permitted with the Proposed Action, no additional inventory is required. During consultation, the Utah State Historic Preservation Office (SHPO) voiced concerns over potential impacts to cultural resources from increased use of trails. While long term changes in trail condition from the use of Class 1 E-bikes is not expected, monitoring of a few particularly vulnerable sites along or near existing trails will be conducted. A Class I literature review of the trail system identified three historic properties for which existing trails pass immediately nearby. One of these sites is currently being monitored by volunteers through the Utah Cultural Site	Joey LaValley	5/5/2025

		Stewardship program. The BLM will monitor these three sites for any changes in condition. The BLM requested concurrence from SHPO on this plan and is awaiting a reply.		
NP	Farmlands (Prime or Unique)	Use of E bikes will not affect any prime or unique farmlands.	Mike Moulton	5/19/2025
NP	Floodplains	The use of E bikes is not expected to have any impact on floodplain connectivity or funciton.	Mike Moulton	5/19/2025
NI	Fuels/Fire Management	The use of e-bikes on existing and proposed trails is not expected to impact fuels or fire management. No vegetation would be removed under the proposed action outside of construction of the Enoch Bench Trail system. Providing developed systems where the public can recreate reduces risk of fire start because trails are maintained to be free of vegetation. Fire danger and fire restriction information would be posted as trailheads to inform the public about potential causes of fires when recreating.	Abigail Barker	4/25/2025
NI	Geology / Mineral Resources/Energy Production	A review of MLRS data shows the proposed project would cross one active mining claim in S ½ NE ¼ sec 9, T35S-R12W. However, there is not any active mining notice or plans of operations within the proposed boundary and further analysis is not required. There is a mineral material site in NW ¼ of NE ¼ sec 17, T35S-R10W (40 ac) authorized to the Federal Highway Administration, listed as a ROW in MLRS. Aerial photography shows the acreage to be reclaimed; Realty is advised to review this ROW agreement. Oil and gas, geothermal, and mineral materials (construction aggregates, fill material) may be prospective in the area, but currently no active lease sales, leases, or pits are located within the path of the project, and no further analysis is required.	Edgardo Covarrubias	4/28/2025
NP	Greenhouse Gas Emissions	Class 1 E-bikes do not emit greenhouse gases and would not contribute impacts to greenhouse gas emissions.	Ryan Oberhelman	4/16/2025
NI	Invasive Species/Noxious Weeds	The use of Class 1 E-bikes on trails authorized for mountain bike use would not impact the introduction, spread, or ability to control noxious weeds and invasive species. The monitoring and adaptive management plan described in the Proposed Action would be adequate to ensure early detection and rapid response to treat any noxious weed or invasive species infestations that would occur on mountain bike trail systems in CCFO.	Rebekah Stout	5/22/2025
NI	Lands/Access	Protect Surveying Monuments	Robert Turley	4/21/2025
NP	Lands with Wilderness Characteristics	There are no LWC units within or near the trail systems.	Mike Innes	5/19/2025
NI	Livestock Grazing	The use of e-bikes on proposed and existing trails is not expected to impact livestock grazing.	Lara Kitchen	5/19/2025

NP	National Historic Trails	There are no National Historic Trails within the identified trail systems.	Mike Innes	5/19/2025
NI	Native American Religious Concerns	Pursuant to federal law and Bureau policy, the following Native American tribes were consulted on February 12, 2025: Paiute Indian Tribe of Utah including the Cedar Band, Indian Peaks Band, Kanosh Band, Koosharem Band, and Shivwits Band; Kaibab Band of Paiute Indians of the Kaibab Indian Reservation; Moapa Band of Paiute Indians of the Moapa River Indian Reservation; Ute Indian Tribe of the Uintah & Ouray Reservation; Navajo Nation; Ute Mountain Ute Tribe; Ute Mountain Ute Tribe – White Mesa Community; Pueblo of Zuni; and The Hopi Tribe. On February 24, 2025, the Paiute Indian Tribe of Utah Cultural Resource Manager, Autumn Gillard, requested a meeting to discuss further. During the meeting, which was held virtually on March 3, 2025, Autumn had no comments on the Proposed Action. No comments regarding sacred sites were provided. No responses were received from other Tribes as of May 5, 2025. This Proposed Action would not limit access or impede the ceremonial use of known Indian sacred sites, nor would it adversely affect the integrity of any known sacred sites.	Joey LaValley	5/5/2025
NI	Paleontology	Based on GIS data, the Project study area crosses areas with Class 1, 2, 3, and 4 Potential Fossil Yield Classification System (PFYC). The Beaver Bench and Evil Water Trails Systems are predominantly PFYC 2, basin fill sedimentary rocks with low paleontological occurrence potential. The Three Peaks Trail System is predominantly PFYC 1, intrusive rocks. Western portions of the Three Peaks Loop, Hoover Junction, and the western-most section of the Big Hole are PFYC 4, with very high potential for tracks and invertebrates. The Enoch Bench Trails System is predominantly PFYC 2, alluvial fan and landslide deposits, followed by PFYC 3 in SW ¼ Sec 8, SW ¼ SW ¼ sec 9, E ½ of NE ¼ and E ½ of SE ¼ sec 17, T35S-R10W where Pleistocene vertebrate fossils are possible. The 13th Hole Trail system is predominantly PFYC 4, Navajo Sandstone with tracks and other trace fossils possible, followed by PFYC 3, where Pleistocene vertebrate fossils are possible. Razorback, Red Wash and Ghost Flats Trails are predominantly PFYC 4, with vertebrate tracks and traces possible, while Lightning Switch and the west half of Ghost Flats is PFYC 2, landslide deposits. The majority of the Iron Hills Trail System is PFYC 2, landslide deposits. Portions of Breaks, Thombstone, Bone Yard, Green Hollow, and C Trail are PFYC 4, with abundant vertebrate tracks and traces. The Cedar City RMP states that areas	Edgardo Covarrubias	4/28/2025

		containing PFYC Class 3, 4, or 5 will require a paleontological survey and assessment prior to any surface disturbance activties. The proponent should cease operations and notify the BLM if a significant paleontological discovery is uncovered. Because these are all pre-existing trails and no new surface disturbance is required, no further analysis is required.		
NI	Rangeland Health Standards	The use of e-bikes on proposed and existing trails is not expected to impact rangeland health standards.	Lara Kitchen	5/19/2025
PI	Recreation	Potential impacts to visitor use numbers and visitor experience may be impacted and will need further analysis.	Mike Innes	5/19/2025
NI	Socio-Economics	Recreation, specifically mountain biking, provides an economic benefit to local communities throughout the Cedar City Field Office. Expanding mountain biking opportunities to users of class-1 e-bikes would ostensibly increase the economic benefit described above. However, the BLM is unaware of any existing economic analysis pertinent to the geographic areas and activities described in the alternatives that would make this issue ripe for detailed analysis.	Ryan Oberhelman	4/16/2025
NI	Soils	Research regarding impacts to soils from the use of class-1 e-bikes on mountain bike trails is limited. A peer-reviewed article in Global Ecology and Conservation that there is insufficient data and study to draw any definite conclusions regarding the impacts of e-bikes to soils (Kuwaczka et al. 2023.). A study prepared by the International Mountain Bicycling Association in a non-peer-reviewed article concluded that there is no significant difference between class-1 e-bikes on trails and traditional mountain bikes (International Mountain Bicycling Association. 2015). However this study ultimately concedes that "more research is needed before conclusions can be drawn regarding the environmental impacts of Class 1 eMTBs as compared with traditional mountain bicycles." In short, literature concerning this topic is limited with non-definitive suggestions of small or no impacts to soils resulting from the use of class 1 e-bikes as opposed to traditional mountain bikes. It would be speculative to assume impacts to soils that rise to a threshold of significance and warranting detailed analysis. Monitoring of trail conditions and adaptive management as described in the Proposed Action would adequately identify and address any impacts to soils that might occur as a result of the Proposed Action.	Lara Kitchen	5/20/2025
NI	Special Status Plants	Previous Environmental Assessments (EAs) conducted within the jurisdiction of the Cedar City Field Office (CCFO) for non-motorized trail systems have documented that no occurrences of Special Status plant species are present within the project areas. Based on existing analysis, the soils, geology, and habitat types in these areas are not	M. Bayles	4/29/25

		conducive to supporting populations of Special Status plant species known to occur within the CCFO. As such, no additional botanical surveys are warranted. Furthermore, the proposed use of Class 1 e-bikes is anticipated to result in negligible new surface disturbance and would not alter the prior conclusions regarding plant species impacts.		
NI	Vegetation	This Environmental Assessment does not propose any new trail construction beyond the scope of previously analyzed bike trail systems within the Cedar City Field Office (CCFO). All routes considered are located within areas previously evaluated in existing Environmental Assessments. Therefore, no new surface disturbance is anticipated, and no additional analysis related to ground disturbance is required.	M. Bayles	4/29/25
NI	Visual Resources	The project does not consist of any surface disturbing activities and will not impact visual resources.	Mike Innes	5/19/2025
NP	Wastes (hazardous or solid)	There are no known hazardous materials sites on authorized and existing trails where the Proposed Action would occur. Moreover, class-1 E-bikes do not contain the potential to create a hazardous material site via spill or accident.	Travis Carlson	
NI	Water Resources/Quality (drinking/surface/ground)	The use of E bikes on existing or new trails is not expected to have any impacts to water resources.	Mike Moulton	5/19/2025
NP/NI	Wetlands/Riparian Zones	The Use of E bikes on existing or new trails is not expected to have any impact to wetlands or riparian zones.	Mike Moulton	5/19/2025
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers in CCFO.	Mike Innes	5/19/2025
NP	Wilderness/WSA	There is no designated wilderness or WSA's within any of the identified trail systems. Proposed E-bike authorization is not being considered on the trail in Spring Creek Canyon WSA.	Mike Innes	5/19/2025
NP	Wild Horses	The Proposed Action is not within or near any HMAs and therefore would not impact the ability to manage wild horses.	Ryan Reese	5/19/2025
NI	Wildlife & Fish	Proposed project area is within mule deer and elk winter range. Recent published literature suggests impacts to wildlife from ebikes are greater than normal mountain biking. Displacement and/or loss of habitat may occur dependent on intensity of use. Recommend seasonal trail closures Dec 1 to Apr 30 consistent with CBGA RMP and Secretarial Order 3362 to mitigate negative impacts to wintering big game.	Dustin Schaible	5/6/25
NP	Wildlife - Greater Sage-Grouse	Project is not within Sage-Grouse Habitat.	Kade Willardson	4/21/2025
NI	Wildlife – Migratory Birds	The proposed project area already includes existing bike trails where migratory birds were analyzed in the original Environmental Assessments for these trails. The introduction of e-	Derek Christensen	5/19/2025

		bikes to these routes may increase the number of mountain bikers and the speed of travel on the existing trails. This potential increase in both the volume and speed of biking could elevate impacts on migratory birds that rely on the habitat in this area. However, the extent of additional impacts from e-bikes on migratory birds remains uncertain and is not currently measurable. Research by Kuwaczka et al. (2023) suggests that the inclusion of e-bikes on existing trails is likely to intensify impacts on wildlife, including migratory birds, which are already affected by current mountain bike recreational activities. The study emphasizes that the most significant adverse effects on wildlife stem from initial disturbances associated with the creation of new trails and their initial use. Further research is needed to better understand the long-term impacts of e-bike usage on wildlife.		
NI	Wildlife-Special Status (not TEC)	Recent published literature suggests impacts to wildlife from e-bikes are greater than normal mountain biking or casual trail use. Impacts are difficult to quantify however avoidance behaviors and/or loss of (seasonal) habitat of the area are the most likely impact/result to sensitive wildlife. Significant impacts beyond those already present are not expected.	Dustin Schaible	5/20/2025
NI	Wildlife T&E and Candidate	Informal consultation was conducted with the U.S. Fish and Wildlife Service (USFWS) regarding the original Environmental Assessments (EAs) associated with the existing trail systems and mountain bike usage. The proposed addition of e-bikes to these trails, for this EA, is not anticipated to significantly impact threatened, endangered, or candidate species or their designated critical habitats. Furthermore, none of the existing bike trails fall within designated critical habitat for any threatened or endangered species.	Derek Christensen	5/2020 25
NP	Woodland / Forestry	Woodland/Forestry resources are not present in the area impacted by the proposed or alternative actions	C. Peterson	4/16/25

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator			
Authorized Officer			