



**Environmental Analysis Form
Montana State Parks Recreation Programs**



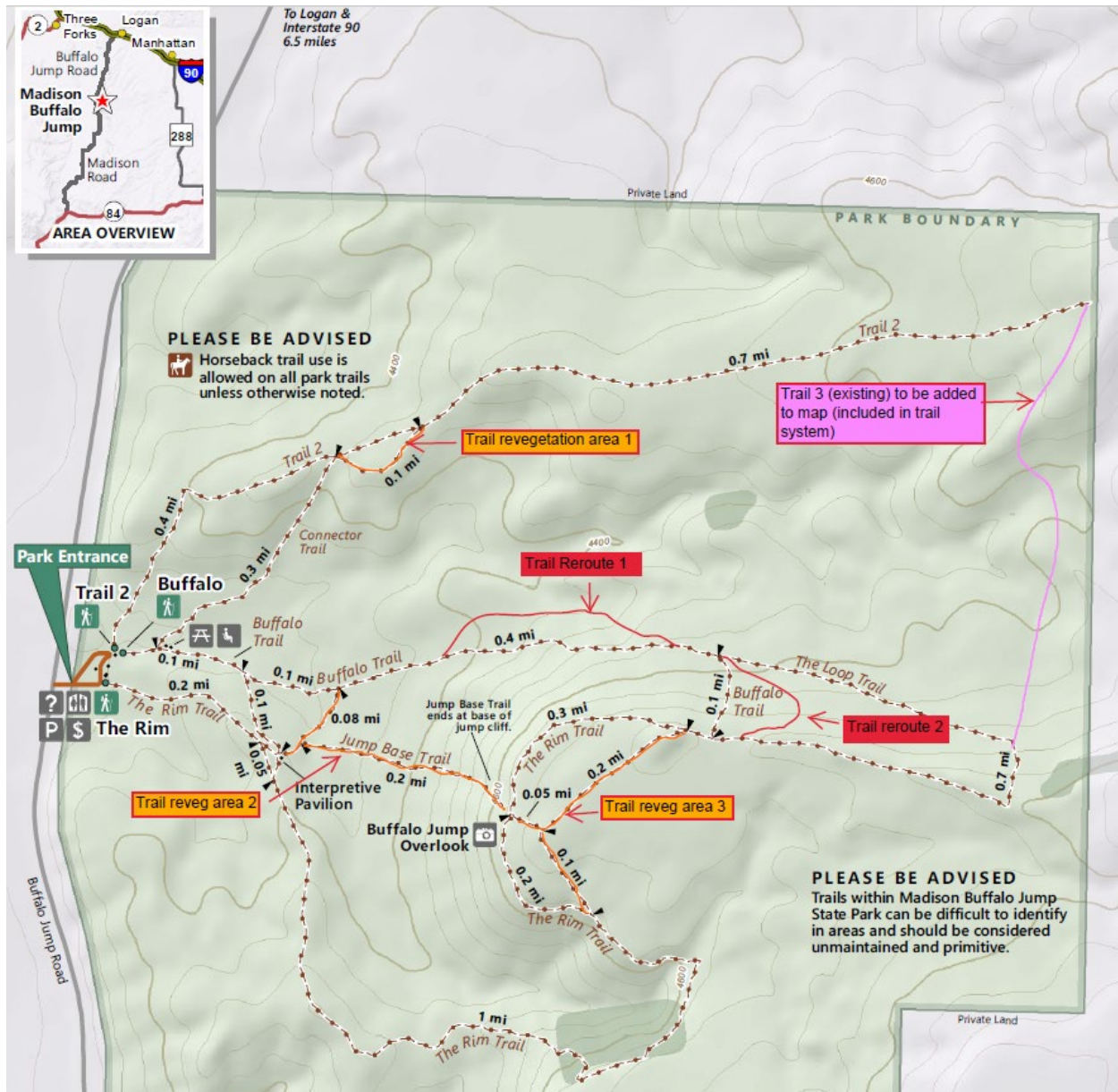
1. **Proposed Project Name:** Madison Buffalo Jump State Park Trails Revegetation and Reroutes
2. **Organization Applying for Funds:** Montana Fish Wildlife and Parks (MT FWP); Montana State Parks (MSP)
3. **Application Year:** 2021

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of proposed action (new trail construction, new snowmobile grooming route, relocation of existing trail, new trailhead structure, etc.):** minor trail reroutes, revegetation of social trails, delineation of trail system

2. **Agency authority for the proposed action:** Montana Department of Fish Wildlife and Parks, Montana State Parks Division. MSP has the authority to develop outdoor recreational resources in the state per Section 23-2-101, Montana Code Annotated (MCA). The public involvement for this EA follows Section 23-1-110 MCA and Administrative Rules of Montana (ARM) 12.2.433
3. **Name, address and phone number of grant applicant (if other than the agency):** Mark Filonczuk, Region 3 Parks Maintenance Supervisor, 1400 S. 19th Ave, Bozeman, MT 59718, 406-570-8735
4. **Anticipated Schedule:**
Estimated Construction Commencement Date: September 2021
Estimated Completion Date: October 2021
Current Status of Project Design (% complete): 20%
Summarize precisely when (what time of year) project phases will be occurring:
July – August 2021 flagging the new trail reroutes and procuring materials for revegetation of old trail. Mid- September begin work on trail reroutes (2 sections approximately 350 yards each), Late September begin revegetation of old trail and social trails with select planting of native materials and barricading where necessary. Install unobtrusive signage in a few key trail junction spots to encourage use of defined trails
5. **Location affected by proposed action. Include a map. If your project will take place on specific trails, ensure they are clearly identified here by name as well as on your map:**

Madison Buffalo Jump State Park
Gallatin County; T1N R2E, Section 34



Trail Reroute 1: north of the main cliff of the Buffalo Jump, new trail (300 yards) will go north of existing route to avoid steep fall line and contour through the drainage with easier grade before tying back into existing trail section.

Trail Reroute 2: north and east of the rim trail, this section (300 yards) will eliminate extremely steep grade by traversing east with one long switchback to tie back in with the rim trail

Trail 3: this section in the north east corner of the park is not currently on our map but a trail already exists. We would like to officially designate this on our map to complete this trail loop (no digging of new trail needed just updated map and signage)

Reclamation of abandoned trail segments: Other than the two above mentioned reroute sections that will require revegetation of the old trails, there are 3 other social trail sections to be reclaimed that are currently on the map as follows:

Trail Revegetation Area 1: North section of Trail 2 (removal of 0.1 miles of trail as we currently have two sections within close proximity of another going to the same spot)

Trail Revegetation Area 2: Jump Base Trail (this heavily eroded 0.2 miles trail dead-ends at the base of the cliff, providing no viewpoint other than what is already provided from an established viewing area at the upper interpretive pavilion)

Trail Revegetation Area 3: Rim trail connectors (removal of 0.35 miles of trail on top of the rim which are heavily eroding. These trails are unnecessary as traffic can be directed to the main scenic trail along top edge of rim)

6. Project size -- estimate the number of acres that would be directly affected that are currently:

	<u>Acres</u>		<u>Acres</u>
(a) Developed:		(d) Floodplain	<u>0</u>
Residential	<u>0</u>		
Industrial	<u>0</u>	(e) Productive:	
(existing shop area)		Irrigated cropland	<u>0</u>
(b) Open Space/ 3-4		Dry cropland	<u>0</u>
Woodlands/Recreation		Forestry	<u>0</u>
(c) Wetlands/Riparian	<u>0</u>	Rangeland	<u>0</u>
Areas		Other	<u>0</u>

8. Permits, Funding & Overlapping Jurisdiction.

(a) **Permits:**
None required

(b) **Funding:**
Montana Trail Stewardship Grant (proposed)
Montana Conservation Corps: \$22,000

(c) **Other Overlapping or Additional Jurisdictional Responsibilities:**

Montana Department of Natural Resources and Conservation, (MT-DNRC) Land Use

License No. 3073220. DNRC owns 617.5 acres of the land on which the park is located. MSP manages it under the land use license and pays an annual fee to DNRC



Photo from top of cliff showing abundance of social trails (Interpretive pavilion at center)

9. Narrative summary of proposed action:

Madison Buffalo Jump State Park is a 638.4-acre day use only, primitive, cultural park located seven miles south of the community of Logan in Gallatin County. The park protects one of the best-preserved examples of traditional hunting site commonly called a buffalo jump in the state of Montana. Buffalo jumps were used by Native American peoples to acquire food and other resources from the harvesting of North American Bison or common name Buffalo. It is believed that as many as 14 different American Indian tribes used this historic site. To protect this legacy while still providing visitors access, Montana State Parks wishes to rehabilitate

numerous social trails and re-route sections of steep trail to improve the safety of the trail user and decrease erosion.

Land that, for generations, has been able to withstand encroaching development and increased usage is now facing unprecedented degradation. The trail system of Madison Buffalo Jump State Park has seen an exponential increase in use (up 58% in 2020). These impacts are seen in the increase in erosion that has occurred due to the arid soil composition and lack of native vegetation needed in places to stabilize tread surface. The project will eliminate some of the social trails that currently lead to the same areas while still providing plenty of options to engage the user to explore the existing trail system. The project will also eliminate some extremely steep trail grades, providing a safer hiking experience and less future trail maintenance for work crews. The project will also provide a better viewshed for the public through elimination of unnecessary social trails and the subsequent restoration of the native landscape. One other benefit is that by directing trail users to a better defined and safe trail system we can discourage off-trail travel and impacts to the many sensitive cultural sites that exist in the small park footprint. Restoration of the trails using native plants will also help maintain biodiversity within the park.



Photo showing erosion of Jump Base trail

10. Description and analysis of reasonable alternatives:

Alternative A: No Action

As a result of keeping the existing trails in place, erosion of soil would continue through impacts of trail users on social trails and the inability to correctly drain existing trails with steep grade in need of reroutes. There would be a continued public safety risk with the steep trails causing potential slip injuries. Sensitive cultural sites may be impacted. Loss of biodiversity could happen from a decrease in native vegetation.

Alternative B: Proposed Action

Corrective action would improve visitor safety, park aesthetics, and preserve cultural resources by eliminating steep grade, restoring native vegetation and defining a more efficient trail system.

Other alternative(s):

Alternative C: Conduct revegetation of social trails and improve trail signage, but no construction of trail reroutes. This will save the cost of constructing the trail reroutes, but not address the issue of erosion on the steep sections of trail and the safety of hikers using these trails.

Alternative D: Conduct trail reroutes but no revegetation of social trails. This would also save the cost of the overall project in labor and materials, but users would continue to use the social trails creating more erosion and possibly impact cultural sites. Also, if these trails are kept in place there is an increase in the cost of maintenance due to the need for erosion structures to be constructed.

11. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

A work agreement would be in place for Montana Conservation Corps crew to provide labor for the trail work (supervised by MT FWP Region 3 maintenance supervisor)

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture			x		x	1
2. Air quality or objectionable odors				x		
3. Water quality, quantity and distribution (surface or groundwater)				x		
4. Existing water right or reservation				x		
5. Vegetation cover, quantity and quality			x		x	2
6. Unique, endangered, or fragile vegetative species				x		
6. Terrestrial or aquatic life and/or habitats				x		
7. Unique, endangered, or fragile wildlife or fisheries species				x		
8. The nesting or movement of migratory bird species				x		
9. Introduction of new species into an area				x		
10. Changes to abundance or movement of species				x		

1. The trail reroutes will disturb existing soil but planned to achieve proper drainage as to not incur future erosion of the trail tread. Soil stability will be improved on social trails with planting of native plants and grass seed, and by hauling in soil to fill in the exposed deep ruts. Also a few select boulders will be imported to keep the soil in place on steep sections.
2. The proposed project would require clearing some vegetation, mostly native grasses and shrubs. Wherever possible these plants will be reused to rehabilitate the former access road. To mitigate these impacts, FWP will plant native vegetation in disturbed areas and continue to manage the area for noxious weeds in accordance with Montana Fish Wildlife and Parks noxious weed program and plan. The proposed project will likely have a positive impact on the area by providing a clearly identified route for visitors to follow, thereby reducing establishment of social trails. No wetlands or riparian vegetation would be disturbed. Planting native vegetation and seed will help preserve the vegetative community and reduce future damage by directing future foot traffic onto designated trails.

B. HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				x		
2. Land use		x				1
3. Risk and/or health hazards			x		x	
4. Community impact			x			2
5. Public services/taxes/utilities				x		
6. Potential revenue and/or project maintenance costs			X			3
7. Aesthetics and recreation		x			x	4
8. Cultural and historic resources	x				x	5
9. Evaluation of significance			x			
10. Generate public controversy			x		x	6

1. This project will encourage proper land use through creation of a sustainable trail system. This is seen as a positive impact by reducing erosion of the land and creating an improved visual landscape. With an improved trail system an increase in use may be a result, but the visitors will be entering a safer and naturally restored environment.
2. Positive for local residents of the Three Forks area to have an improved trail system.
3. Increase in visitation could provide more local revenue to this community as well. The short trail reroutes will have minor maintenance costs to be absorbed by MT State parks maintenance staff as part of regular trail maintenance.
4. Improved trails for hiking and restored landscape for nature/wildlife viewing is seen as a positive impact
5. In accordance with the Montana Antiquities Act (22-3-421 to 22-3-442) and with FWPs ARM rules (12.8.501 to 12.8.10), a heritage resource review is in progress, conducted by MT State Parks, State Parks Heritage Resources Program Manager Rachel Reckin, and will be complete before start of the project. A compliance letter will be submitted to SHPO detailing her findings and requesting concurrence. If sites are identified and cannot be avoided, in accordance with MCA 22-3-430, mitigation measures will be devised in consultation with the Montana State Historic Preservation Office (SHPO).
6. Although the cultural significance of this park is well known, this project will have a small yet positive impact on the visual landscape and recreational hiking opportunity.

Public comment period will provide feedback necessary to take into consideration. The improvement of visitor safety and reduction of resource damage should help solidify this project having a positive impact.

PART III. NARRATIVE EVALUATION AND COMMENT

1. Summarize the impacts of the proposed action and address any cumulative impacts:

The project will have minor, temporary impacts along the existing trail corridors with soil displacement and impacts of using minor equipment to haul restoration materials (this includes any heavy materials that are too difficult to manually transport on the trail). Any vegetation impacts will be addressed through additional seeding or planting of the soil if necessary and kept as minimal as possible. Every care will be taken to limit any additional impact to the natural, undisturbed areas in order to preserve the aesthetic of the park. One of the primary purposes of this project is to restore the native ecosystem by reclaiming the abandoned trail segments. This should help alleviate cumulative impacts to the park by providing a safe and more clearly defined network of trails. The hope is to educate the public by restoring these impacted areas and still providing plenty of recreational opportunity. The addition of some low visual impact, unobtrusive trail signage would also help achieve this goal.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public notice and participation outlined below is appropriate for a project of this scope having limited impacts, which can be mitigated. The public will be notified about this EA and opportunity to comment through the following actions:

- Two public notices will be published in the *Bozeman Chronicle* and *Independent Record*
- One statewide press release
- Public notice on the Montana State Parks web page: <http://stateparks.mt.gov/>

2. Comment Period:

The public comment period will extend for (30) thirty days and written comments will be accepted until 5:00 p.m., April 8, 2021. The public can submit written comments to Madison Buffalo Jump State Park Trail Project, FWP Region 3 Headquarters, 1400 S. 19th Ave Bozeman, MT 59718, or email to: mark.filonczuk@mt.gov

3. This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

PART V. EA PREPARATION

1. Summary evaluation of significance and the need for an EIS:

Because of the proposed project being small and designed to protect the land resources while still providing for the public's desire to access a significant heritage resource the impacts to the physical and human environments would be minimal. MSP will mitigate these minimal, adverse impacts by replacing soil and planting native vegetation on any disturbed areas. This project would positively impact local and statewide recreation and tourism related to hiking and wildlife viewing. Based on this analysis, an Environmental Assessment is the appropriate level of analysis and an Environmental Impact Statement is not required

2. Person(s) responsible for preparing the EA:

Mark Filonczuk, Region 3 Parks Maintenance Supervisor
Montana State Parks
1400 S. 19th Ave.
Bozeman, MT 59718
mark.filonczuk@mt.gov

3. List of agencies or offices consulted during preparation of the EA:

Montana Fish, Wildlife and Parks: Parks, Wildlife, Fisheries, Design and Construction Divisions; Montana State Historic Preservation Office, Montana Department of Natural Resource Conservation, Montana Conservation Corps

_____ Marina Yoshioka, Regional Supervisor, 406-577-7890

TOURISM REPORT

MONTANA ENVIRONMENTAL POLICY ACT (MEPA) & MCA 23-1-110

The Montana Department of Fish, Wildlife and Parks has initiated the review process as mandated by MCA 23-1-110 and the Montana Environmental Policy Act in its consideration of the project described below. As part of the review process, input and comments are being solicited. Please complete the project name and project description portions and submit this form to:

Jan Stoddard, Bureau Chief, Industry Services and Outreach
MOTBD, Montana -Department of Commerce
301 S. Park Ave.
Helena, MT 59601

Project Name: Madison Buffalo Jump State Park Trail Rehabilitation and Reroutes

Project Description: The trail system of Madison Buffalo Jump State Park has seen an exponential increase in use (up 58% in 2020). These impacts are seen in the increase in erosion that has occurred due to the arid soil composition and lack of native vegetation needed in places to stabilize tread surface. The project will eliminate some of the social trails that currently lead to the same areas while still providing plenty of options to engage the user to explore the existing trail system.

The project will also eliminate some extremely steep trail grades, providing a safer hiking experience and less future trail maintenance for work crews. The project will also provide a better viewshed for the public through elimination of unnecessary social trails and the subsequent restoration of the native landscape. One other benefit is that by directing trail users to a better defined and safe trail system we can discourage off-trail travel and impacts to the many sensitive cultural sites that exist in the small park footprint. Restoration of the trails using native plants will also help maintain biodiversity within the park. This project would help enhance the visitor experience and possibly increase visitation to this park, therefore increasing the economic impact to the Three Forks area.

Would this site development project have an impact on the tourism economy?

NO

YES

If YES, briefly describe:

Yes, as described, the project has the potential to positively impact the tourism and recreation industry economy if properly maintained. Montana's 12.6 million non-resident visitors spent over \$3.8 billion in the state in 2019 (University of Montana's Institute for Tourism and Recreation Research, 2020). Recreation access and activities in state parks are in high demand for visitors with continually increasing intent to visit a state park while visiting Montana. This intent to visit has dramatically increased this year as a result of the pandemic and a desire for safe outdoor recreation experiences. Additionally, Montana residents use and value state parks. A 2018 ITRR study confirmed that over half of Montana residents 18 and older use Montana State Parks at least once a year and that the importance of having state parks is agreed upon by all residents. Madison Buffalo Jump State Park offers a unique insight into the Native American culture with all the main geographical features of a buffalo jump site accessible by short walks.

In 2020, there was a record 3.4 million Montana resident and non-resident visitors to Montana state parks, an increase of 30% over 2019. The resulting exponential increase in visitation at Madison Buffalo Jump State Park has resulted in erosion impacting visitor experience and sustainability of this trail system. This project will discourage off-trail travel, eliminate unnecessary social trails, and native plant restoration to biodiversity and provide a better viewshed.

Does this impending improvement alter the quality or quantity of recreation/tourism opportunities and settings?

NO

YES

If YES, briefly describe:

Yes, as described, the project has the potential to improve quality and quantity of tourism and recreational opportunities. This project develops a better defined and safe trail system eliminating extremely steep trail grades and providing a safer hiking experience. With these improvements, we are assuming the agency has determined it has necessary funding for the on-going operations and maintenance once this project is complete.

Signature Jan Stoddard

Date: 2/16/21