Draft
Environmental Assessment

Makoshika State Park Capital Road Project

April 2, 2018

Draft Environmental Assessment

MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action: Stabilization, renovation and repaving of the main access road in Makoshika State Park in Glendive, Montana. The existing road surface had a projected life of 18 to 20 years and is currently 19 years old. The challenging soils of Makoshika' s badlands topography has resulted in holes, cracks and uneven road sections in the park's main road. Many culverts are beginning to show deterioration and some need repair and stabilization. This EA also considers impacts of a new pedestrian bridge across Cains Coulee Creek, replacing an existing bridge that was removed due to poor anchoring into the unstable soils. The new pedestrian bridge would provide access to the Dianne Gabriel Trail and would tie into future trail system expansion. Although the bridge funding is not included in this project, this EA will allow for grant application and other partnering options to proceed. The bridge would be in a proximate but more suitable location to the old bridge, which has been determined as part of the engineering for this project.

2. Agency authority for the proposed action: Montana Fish, Wildlife & Parks
Montana Fish, Wildlife and Parks through its Parks Division has the authority to develop outdoor recreational resources in the state per 23-2-101 Montana Code Annotated (MCA): "*for the purposes of conserving the scenic, historic, archaeologic, scientific, and recreational resources of the state and providing their use and enjoyment, thereby contributing to the cultural, recreational and economic life of the people and their health."*
Statute 23-1-110 MCA and Administrative Rules of Montana (ARM) 12.2.433 guide public involvement and comment for the improvements at state parks, which this document provides. ARM 12.8.602 required the Department to consider the wishes of the public, the capacity of the site for the development, environmental impacts, long-range maintenance, protection of natural features and impacts on tourism as these elements relate to development or improvement to state parks. This document describes the proposed project in relation to this rule.

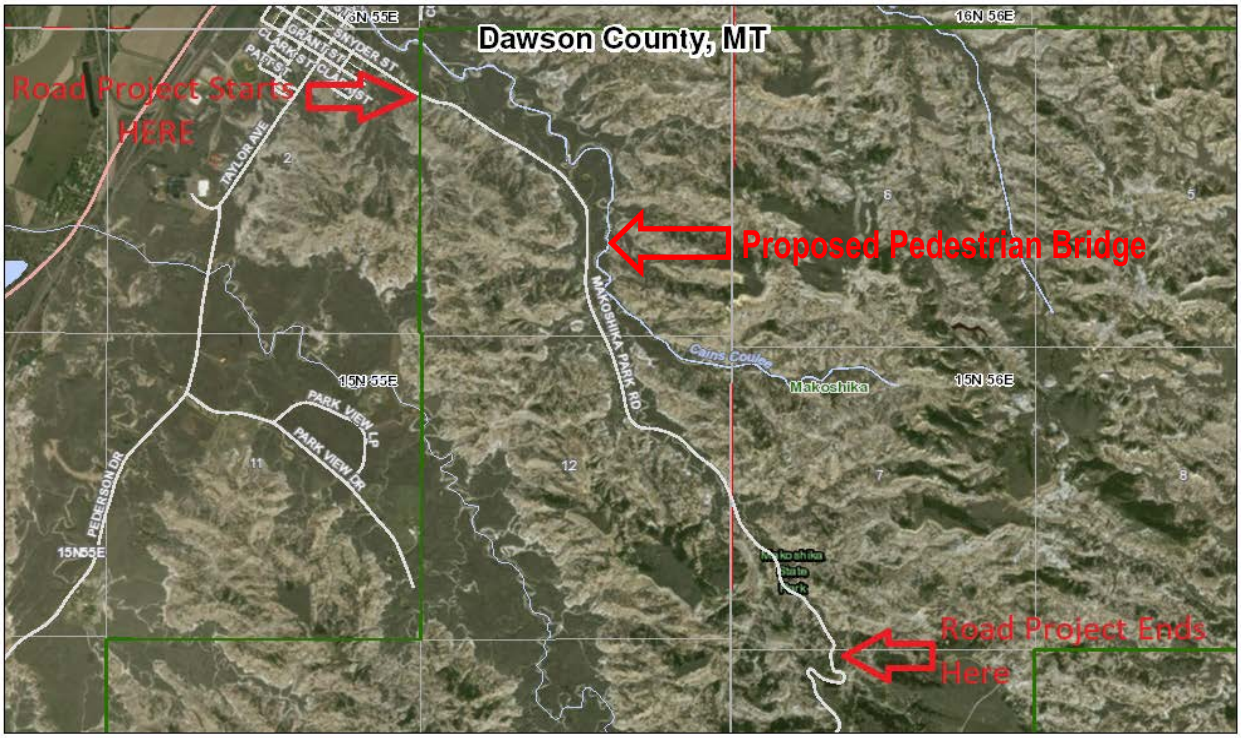
3. Anticipated Schedule:

Estimated Commencement Date: August 20, 2018
Estimated Completion Date: October 1, 2018
Current Status of Project Design (% complete): 50%

4. Location affected by proposed action: T16NR55E, T15NR55E, T15NR56E. Please see attached maps.

Project Area in Makoshika State Park

Proposed bridge location



State Parks (Boundaries)

State Parks (Boundaries)

Printed from fwp.mt.gov
March 20, 2018

1:36,112

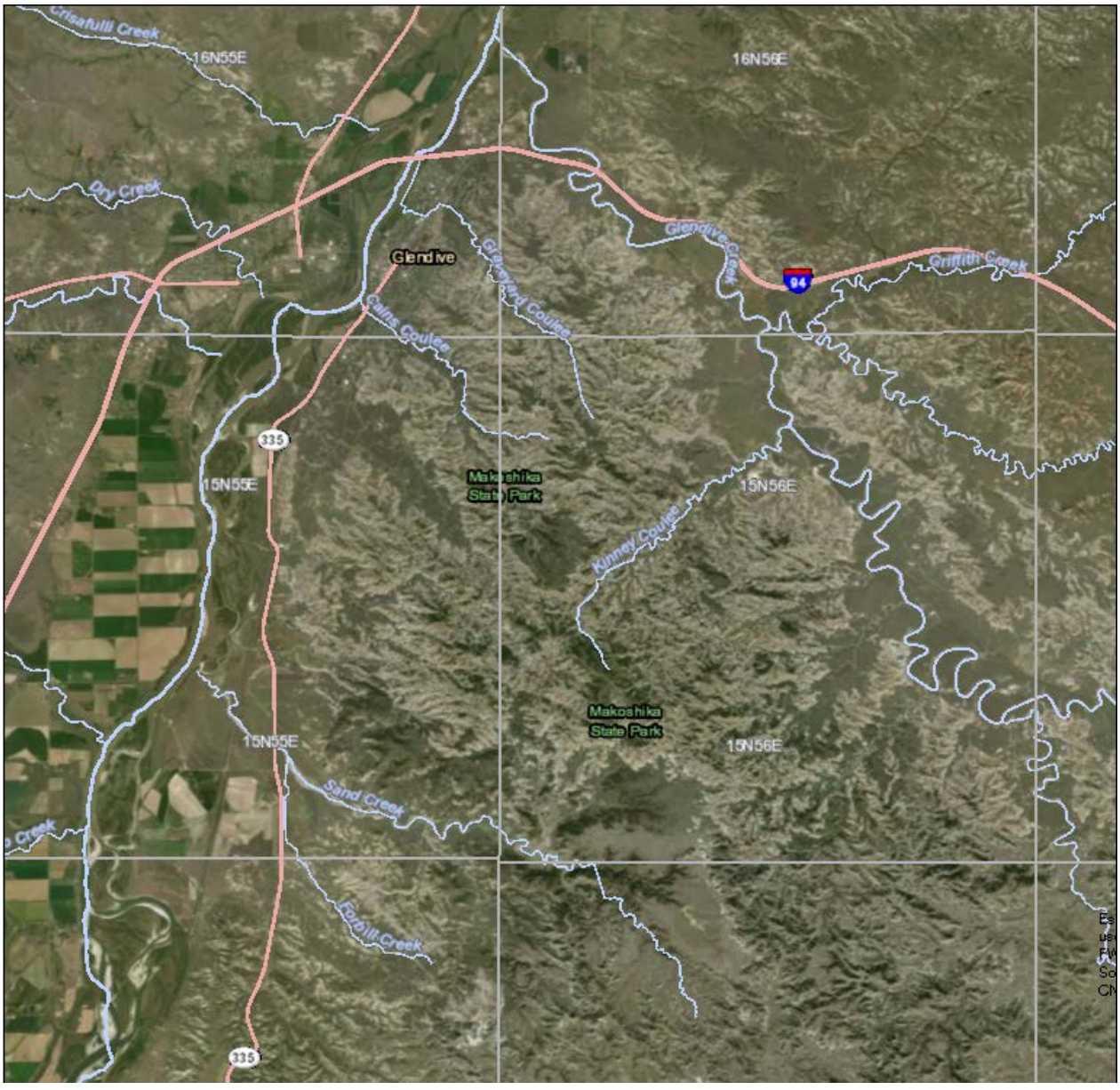
0 0.3 0.6 1.2 mi

0 0.5 1 2 km

This map was generated from the Montana Fish, Wildlife & Parks (FWP) internal FWP Mapper online mapping system. Data layers on this map may depict sensitive species level information. This map is not intended for distribution or use beyond work associated with FWP.

Some layers may not appear in the legend due to page size limitations.

Makoshika State Park Location



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

	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial	0	(e) Productive:	
(existing shop area)		Irrigated cropland	0
(b) Open Space/	0	Dry cropland	0
Woodlands/Recreation		Forestry	0
(c) Wetlands/Riparian	0	Rangeland	0
Areas		Other	4.5

6. Permits, Funding & Overlapping Jurisdiction.

(a) Permits: Contractor will be responsible for all required permits for this project.

(b) Funding:

Agency Name	Funding Amount
Montana State Parks Capital Fund	$1.85 Million Dollars

7. Narrative summary of the proposed action:

Makoshika State Park was designated a state park in 1953 and is Montana's largest state park with a total of 11,501 acres. Makoshika State Park received 94,308 visitors in 2017. The park has been titled the "Crown of Eastern Montana" and includes beautiful eroded canyonlands and elevated plateaus with a diversity of plant and animal life. The park has many amenities including a campground, visitor center, 11 designated trails, pavilion, archery area, 200-seat amphitheater, and a PDGA disc golf course. In 2017 Makoshika State Park was voted by the public as the USA Today's number one attraction in Montana. Makoshika State Park works with many community and state partners including the Friends of Makoshika, the Glendive Chamber of Commerce, the Glendive Lion's Club, and our many volunteers and community supporters.

Makoshika State Park is known for its paleontology resources as over 10 species of dinosaur fossils have been found in the park. The park visitor center also has a planetology lab where many fossils are stored. Paleontology partners include the Museum of the Rockies and Carter County Museum.

The road was last paved in 1999 and has cracks, drainage problems, potholes, upheaving, rutting, and other structural and deterioration issues. Soils at Makoshika are poor and subject to high erosion, sloughing, and movement of the gumbo mud soils that also provide for the scenic beauty of Makoshika State Park. The road surface problems indicate that road subgrade problems are developing (piping, moisture accumulation, etc.), and the road is at the end of its life and will deteriorate at even a faster rate. The

project would improve the road base as well as provide surface repairs and structural repairs to culverts, ditches and other drainage features. Various road construction techniques are proposed to be utilized including concrete additives, recycling of the existing pavement material, geo fabric, dig outs and varied depth of fill based on slope, soils and specific location conditions.

Proposed Action: Renovate and rebuild the primary Makoshika State Park access road. Utilize techniques for recycling the existing pavement, deeper dig outs, and concrete additives to improve and strengthen the road so it will be more stable in the moving soils of the park's badlands topography.

- A facility condition inventory (FCI) report conducted in 2015 identified the main park road as in poor condition as it is plagued with subgrade failures; shoulder push, rutting and potholes. It also identified the bridge as a significant safety concern and recommended that it be replaced.
- Makoshika' s importance and the need for a safe and durable road was recognized by the 2017 Montana Legislature by providing funding for this purpose.

Need for the Action: The 19-year road has over 40,000 vehicles on it every year, has reached the end of its practical life and needs to be repaved from the lower switchback to the park boundary near the visitor center.

Objectives for the Action(s): The objective for this project is to provide a stable road that will provide for safe visitor travel for at least 20 years or more.

8. Description and analysis of reasonable alternatives:

<u>Alternative A:</u> No Action

If no action is taken the road will continue to deteriorate as piping, sloughing and moisture accumulation continues. Visitation would be discouraged, and visitor vehicle damage would likely occur, as well as lower visitor satisfaction. Culverts and other expensive infrastructure will likely fail, and expensive emergency repairs would be necessary. Regular maintenance activities are not sufficient to prevent deterioration of the existing road surface. Poor road conditions could make it difficult to access an important and expanding portion of the park trail system.

<u>Alternative B:</u> Proposed Action

The project as described above, which would utilize a variety of road construction techniques which is estimated to keep the road in good working order for the next 20 years. Included in this project is a new pedestrian bridge across Cains Coulee, which would provide access to an expanding trail system.

<u>Alternative C:</u> Dig out and fill individual holes and pave over

This alternative would not provide the varied techniques required to provide a twenty year plus life for the road and would only be a short-term repair for a small portion of the

road.

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

The contractor selected for the project will be responsible for all required permits for this project.

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

1. LAND RESOURCES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		X				
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				

No negative impacts are anticipated.

2. AIR Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)			X			12a
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				

2a. Some dust will be generated during construction. Air quality would be minimally and temporarily impacted during construction of the proposed improvements and would return to normal levels following construction. Watering and other techniques will be utilized to minimize dust.

3. WATER **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				

No negative impacts are anticipated.

4. VEGETATION **Will the proposed action result in?**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				
f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		X				
g. Other:						

No negative impacts are anticipated.

5. FISH/WILDLIFE **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				

5. FWP Wildlife Biologist, Melissa Foster, and FWP Fisheries Biologist, Mat Rugg, were both contacted about the project and they did not have any concerns about the project.

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Increases in existing noise levels?		X				
b. Exposure of people to serve or nuisance noise levels?			X			6b
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				

6b. Construction noise during the project will occur but will return to normal after completion of the project. The public enjoying the visitor center may encounter an increase in noise level when the road construction gets closer to the visitor center.

7. LAND USE **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				

The proposed project may temporarily impact access to portions of the park. The visitor center will remain open to the public during construction and the remainder of the park will be available for use to the greatest extent possible while providing for visitor safety and project expediency.

8. RISK/HEALTH HAZARDS **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?			X			
c. Creation of any human health hazard or potential hazard?		X				

8b. The proposed project would not create risk or safety hazards. Public access will be restricted during construction to prevent the public from being injured by construction activities. Overall, public health and safety of visitors to Makoshika State Park would be improved by a safer and more durable main road.

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?				X positive		
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

9d. The project will have a positive impact for Makoshika State Park, Glendive and the surrounding region and State of Montana. The road will enhance better travel in the park and will help attract tourists to Glendive as they will be pass through town on their way to the park. The newly paved road will complement the recently paved and chip sealed switchback portion of the road by creating a consistent high quality primary travel corridor in the park.

10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. Define projected revenue sources						
f. Define projected maintenance costs.						

10f. The current road repair project will total 1.85 million dollars. This will save an annual cost of $2000 per year to repair and maintain the deteriorating road. Costs for and efficiency of plowing and other snow season maintenance will also be reduced with a more even and consistent surface.

11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)			X positive			11c

11c. The newly paved road will enhance better recreation opportunities in the park. Makoshika State Park has over 90,000 visitors a year and five designated trailheads are located from the main road. One of those trails is the Paramount Trail that was funded through a grant in cooperation with the Friends of Makoshika. See Tourism Report in Appendix B.

12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?			X			12a.
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				

12a. In accordance with the Montana Antiquities Act (MCA 22-3-421 to 22-3-442) and with FWPs ARM rules (12.8.501 to 12.8.10), impacts to heritage resources must be considered as part of project planning and development. The project area has been completely disturbed by previous road construction activities, so impacts are not expected. However, Makoshika is a known locality of abundant paleontological resources. As a result, it is possible that excavation related to new road construction could uncover fossil specimens. If fossil specimens are uncovered, in accordance with MCA 22-3-435, construction should be halted, and the find should promptly be reported to the State Parks Heritage Resources Program or to the Montana State Historic Preservation Office (SHPO). The fossil find should be left in place if possible, until it can be assessed by a qualified paleontologist. If a significant paleontological specimen is identified and cannot be avoided by project activities, in accordance with MCA 22-3-430, mitigation measures will be devised in consultation with the Montana SHPO and with paleontologists from the Museum of the Rockies (MOR).

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				

None anticipated.

PART III. NARRATIVE EVALUATION AND COMMENT

Makoshika State Park is an important paleo and archeological site not only for the state of Montana but also the United States. Makoshika State Park contributes significantly to local, regional and statewide tourism. Makoshika State Park has close to 100,000 visitors every year. The paving project would have a positive impact on the local and statewide recreation and tourism industry, by providing better access and safer road travel in the main corridor which also has five trailheads located near the main road.
Because the proposed project would be in a previously disturbed area, the impacts to the physical and human environments would be minimal. Based on this analysis, an Environmental Assessment is the appropriate level of analysis and an Environmental Impact Statement is not required.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in each of these papers: Glendive Ranger Review, Helena Independent Record and Miles City Star
- One statewide press release

- Public notice on the Montana State Parks website: http://stateparks.mt.gov/

Copies of this environmental assessment will be distributed to neighboring landowners and interested parties to ensure their knowledge of the proposed project.

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

2. Duration of comment period:

The public comment period will extend for (20) twenty days. Written comments will be accepted until 5 p.m. April 23, 2018 and can be mailed to:
Chris Dantic, Park Manager, Makoshika State Park, POB 1242, Glendive, MT 59330
or emailed to cdantic@mt.gov .

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? No

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.
Based on an evaluation of impacts to the physical and human environment under MEPA, this environmental review revealed no significant negative impacts from the proposed action; therefore, an EIS is not necessary and an environmental assessment is the appropriate level of analysis in determining the significance of impacts.

2. Person(s) responsible for preparing the EA:
Chris Dantic, Makoshika State Park Manager
Doug Habermann, Regional Park Manager, Billings, MT

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

Fish, Wildlife and Parks – Parks, Fisheries and Wildlife Divisions and the Responsive Management Unit, Design and Construction Bureau

Montana Office of Tourism – Department of Commerce

APPENDIX A

23-1-110 MCA
PROJECT QUALIFICATION CHECKLIST

Date: **Person Reviewing: Chris Dantic**

Project Location: **Makoshika State Park**

Description of Proposed Work:

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under 23-1-110 rules.

[ ] A. New roadway or trail built over undisturbed land?
Comments*: Not anticipated*

[ ] B. New building construction (buildings <100 sf and vault latrines exempt)?
Comments*:*

[**X**] C. Any excavation of 20 c.y. or greater?
Comments*: Yes, but within the existing disturbed road bed or immediately adjacent to it.*

[ ] D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?
Comments*:*

[ ] E. Any new shoreline alteration that exceeds a doublewide boat ramp or handicapped fishing station?
Comments*:*

[ ] F. Any new construction into lakes, reservoirs, or streams?
Comments*:*

[ ] G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?
Comments*:*

[ ] H. Any new above ground utility lines?
Comments*:*

[ ] I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?
Comments*:*

[ ] J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects?
Comments*:*

Appendix B
Tourism Report
MONTANA ENVIRONMENTAL POLICY ACT (MEPA)/HB495

The Montana Department of Fish, Wildlife and Parks have initiated the review process as mandated by HB495 and the Montana Environmental Policy Act in its consideration of the project described below. As part of the review process, input and comments have been solicited
Helena, MT 59601

Project Name: Makoshika State Park Main Road Project

Project Location: Makoshika State Park, Dawson County.

Project Description: Montana State Parks proposes to renovate and rebuild the primary access road into Makoshika State Park. The road was last paved in 1999 and has cracks, drainage problems, potholes, upheaving, rutting, and other structural and deterioration issues. Soils at Makoshika are poor and subject to high erosion, sloughing, and movement of the gumbo mud soils that also provide for the scenic beauty of Makoshika State Park. The road surface problems indicate that road subgrade problems are developing (piping, moisture accumulation, etc.), and the road is at the end of its life and will deteriorate at even a faster rate. The project will improve the road base as well as provide surface repairs and structural repairs to culverts, ditches and other drainage features. Various road recycling techniques are proposed to be utilized including concrete additives, recycling of the existing pavement material, geo fabric, dig outs and varied depth of fill based on slope, soils and specific location conditions.

1. Would this site development project have an impact on the tourism economy?
NO **YES** If YES, briefly describe:

Yes, as described, this project has the potential to positively impact the tourism and recreation industry economy if properly maintained. We are assuming the agency has determined it has necessary funding for the on-going operations and maintenance once this project is completed.
Makoshika State Park is a critical asset for both non-resident and resident visitors.

Over 90,000 annual visitors come to Makoshika to experience incredible badlands scenery.

2. 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 as well as maintain important safety and security infrastructure for visitors. We are assuming the agency has determined it has necessary funding for the on-going operations and maintenance once this project is complete.

Signature /s/ Jan Stoddard Date: 3/23/18