

# Preliminary Environmental Assessment

## Pictograph Cave State Park Improvements



September 2007



***Montana Fish,  
Wildlife & Parks***

# Environmental Assessment MEPA, NEPA, MCA 23-1-110 CHECKLIST

## **PART I. PROPOSED ACTION DESCRIPTION**

1. **Type of proposed state action:** Montana Fish, Wildlife & Parks (FWP) proposes to improve the facilities at Pictograph Cave State Park. Specifically, construct a permanent visitor contact station adjacent to the existing parking area, establish an amphitheater in an area near the proposed visitor contact station, and to realign and replace a portion of the existing interpretive trail near Middle Cave.

2. **Agency authority for the proposed action:**  
FWP has the authority to develop outdoor recreational resources in the state per 23-2-101 MCA.

Furthermore, state statute 23-1-110 MCA and ARM 12.6.601-606 guides public involvement and comment for the improvements at state parks and fishing access sites, which this document provides.

3. **Name of project:** Pictograph Cave State Park Improvements

4. **Project sponsor:**  
Montana Fish, Wildlife & Parks  
2300 Lake Elmo Dr.  
Billings, MT 59105  
406-247-2940

5. **Anticipated Schedule:**  
Estimated Visitor contact station Commencement Date: Fall 2008  
Estimated Completion Date: Summer 2009  
Current Status of Project Design (% complete): 0%

Estimated Trails Construction Commencement Date: Spring 2008  
Estimated Completion Date: Fall 2008  
Current Status of Project Design (% complete): 50%

Amphitheater Establishment Commencement Date: Spring 2008

6. **Location affected by proposed action:**  
Yellowstone County, T1S, R27E, Section 19



Pictograph Cave State Park is 7 miles south of Billings

**7. Estimated project size:**

	<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/ Woodlands/Recreation	<u>.25</u>	Dry cropland	<u>0</u>
(c) Wetlands/Riparian Areas	<u>0</u>	Forestry	<u>0</u>
		Rangeland	<u>0</u>
		Other	<u>0</u>

**8. Permits, Funding, and Local, State or Federal agency that has overlapping or additional jurisdiction.**

(a) **Permits:** permits will be filed at least 2 weeks prior to project start.

Agency Name	Permits
Yellowstone County	Building
County Sanitarian	Septic Drain Field

(b) **Funding:**

Agency Name	Funding Amount
Visitor contact station	\$ 400,000
- Montana FWP capital funding	
Trail Improvements	to be determined
- Montana FWP trail grant	
Amphitheater	to be determined
- Montana FWP regional parks	

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

Agency Name	Type of Responsibility
Montana State Historical Preservation Office	Archeological & Cultural Site Protection

## 9. Summary of the proposed action:

Pictograph Cave State Park is located seven miles outside of Billings, Montana's largest city. In 1964, the Park became a National Historic Landmark in recognition of its considerable contribution to our understanding of archaeology in the northwestern plains, and was subsequently designated as a State Historic Site in 1969. The park is a popular destination for both in-state and out-of-state visitors, with 29,600 visitors enjoying the park in 2006.

In 2003, a 10-year management plan for Pictograph Cave State Park was completed that described its current resources, management goals, and issues. Issues presented in the plan and options for addressing them were developed through a process that solicited public input through a 10-member citizen planning team, a local advisory council, collaborations with local county commissioners, Native American tribal representatives, and formal public scoping meetings. Of the six goals identified in the plan, the first, *Provide a high-quality experience for all visitors*, reflects the need for a visitor contact station at the park to provide interpretation and education areas to display artifacts (or replicas) found in the park's caves.

Currently, park office functions are provided in a rented temporary office, across the road from the park's parking area. The building accommodates two desks, and a space for supplies, but is inadequate for providing visitor services beyond a very basic level. A shed next door provides additional storage space. Currently, all educational programs are presented along the hiking trail or in the picnic area, which can be affected by changing weather conditions.



Current contact station and administrative office. Storage shed can be seen to the left of the office.

The proposed visitor contact station anticipated location is adjacent to the existing parking lot, near where the current vaulted restroom is located. The convenient location would provide guests a specific focal point to begin their tour of the park, receive interpretive literature of the caves, and meet park staff for guided tours. The new building is anticipated to accommodate a visitor contact area, classroom, administrative offices, public restrooms, storage space, public meeting room, retail space, and exhibit area.

The proposed new facilities would allow park staff to expand educational programs because of the additional classroom area, which could be used during good or bad weather conditions and the availability of electricity would allow for slideshows and other styles of presentations. The new public restrooms in the building would meet ADA accessibility standards. Separate administrative offices and visitor contact areas will improve the staff's ability to complete park business in an efficient manner, while the visitor contact area will allow staff to focus on visitor needs. The new building will offer a dedicated, secure space for exhibits and interpreting the site for the public to enjoy. Finally, the proposed new building would allow the removal of the existing metal contact office, improving the viewshed from the park's hiking trail and eliminating the building rental cost from the park's expenses.

The proposed visitor contact station will be designed to blend with the natural environment of the park with an aesthetically pleasing exterior. This meets another goal of the management plan, *Protect the integrity of the natural experience at the park*. Furthermore, the anticipated location of the proposed project will provide park staff with better visibility of the trails, caves, and picnic area, which will reduce the opportunities for vandalism.

The Pictograph Cave State Park Management plan specifically identified the need for improved visitor safety. Of high priority in 2003 was the relocation and widening of the existing pedestrian trail away from the cliffs above Middle Cave. This realignment has new urgency now, since a rock fall on the trail in May 2007 has made the passage between Pictograph and Middle Caves impossible (See *Appendix B* for the location of the rock fall). Visitors can no longer hike the trail in a single loop from the parking lot.



Although the design of the trail improvements have not been finalized, park staff anticipates the trail plans will include the removal of the existing asphalt trail and replacement with a widened gravel surface. This change would eliminate the rough interface edge between the asphalt and natural surface and the asphalt's slick surface when it becomes wet.

The final proposed element of improvements to the park is the establishment of a natural amphitheater area. Much like the visitor contact station, the amphitheater would provide an additional venue for educational presentations or other group activities. A mowed area on the bluff above the proposed visitor contact station's location would designate the amphitheater's area and would be expected to accommodate 40-60 attendees. Its close proximity to the visitor contact station would provide for an access to a power source for temporary lighting and equipment needed for presentations.

## **10. Alternatives:**

### **Alternative A: No Action**

This alternative makes no facility improvements at the state park for the benefit of visitors and park staff. The park staff will continue to rely upon the rented mobile building for their accommodations for a visitor contact area and administrative office. Educational exhibits would be limited to the existing information kiosk at the park's

trailhead. Educational programs would remain an outdoor experience at the whim of changing weather conditions.

The safety of visitors and staff would remain a concern because of the location of the hiking trail and its close proximity to the cliff walls above Ghost and Middle Caves. As previously noted, the hiking trail is currently blocked by a rock fall and additional rock falls could block the trail further if it remains at its present location.

**Alternative B: Improve the facilities at Pictograph Cave State Park with the addition of a visitor contact station, realignment of the hiking trail, and amphitheater. (Proposed Action)**

This alternative would provide improved facilities for both visitors and parks staff. The proposed visitor contact station would present park guests with a clear destination for general park information and other guest services. The new building would meet numerous goals of the Park's Management Plan such as secure facility to exhibit local artifacts and provide a location in which expanded park events can be held.

Additionally, the proposed new building will allow park staff to conduct administrative tasks and provide a common area to meet visitors versus the existing arrangement in which both activities occur in the same limited space. This improvement would meet visitor expectations and future staff administrative needs.

The redesign and realignment of the hiking trail away from the cliff wall and potential rock falls would improve visitor and staff safety without detracting from the public's ability to view the caves and enjoy the park's viewshed.

The addition of the amphitheater would provide visitors with a new experience at the park where educational presentations and group events could be held. The proposed new venue would allow park staff the ability to accommodate larger groups for guided tours where a portion of the group could be situated at the visitor contact station and another at the amphitheater.

**Alternative C: To move the existing log building at Bratten Fishing Access Site (FAS) to be used as a visitor contact station at Pictograph Cave State Park.**

This was originally considered a viable alternative when the Park's management plan was being developed in 2002. However, this alternative is no longer a practical option since the size of the Bratten log building is not large enough to accommodate the desired configuration of the proposed visitor contact station.

The log building would have provided the park staff with an adequate space for meeting visitors and managing administrative duties but there would be no additional space for a classroom, exhibit area, ADA public restroom or retail space.

## **PART II. ENVIRONMENTAL REVIEW CHECKLIST**

The analysis of the physical and human environments discussed on the following pages is limited to Alternative B (proposed action). The reason for this is because based on the description of Alternative A, FWP would not pursue any improvements to the facilities at Pictograph Cave State Park. The facilities at the park would remain in its current state, which would limit FWP's ability to expand the visitors' experience, improve staff administrative facilities, and improve staff and visitor safety. If the status quo were maintained, there would be no changes to the physical or human environments.

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

#### **A. PHYSICAL ENVIRONMENT**

1. <u>LAND RESOURCES</u>  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		yes	1a
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X		yes	1b
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				1e
f. Other:		X				

1a/b. Due to the nature of the improvements, specifically the construction of the new visitor contact station, groundbreaking activities and removal of soil will be required to build the foundation for the structure. The design of the amphitheater will likely displace no soil because the structure will be a mowed area versus a sunken model.

The displacement of soil during construction will cause some temporary soil instability, but Best Management Practices (erosion control and compaction techniques) will be implemented to ensure limited runoff and erosion. Soil disturbed by the construction will be compacted and reseeded by FWP with native grasses after the building, trails and amphitheater are installed and connections to existing and new utility and septic system are completed.

1e. The realignment of the trail will increase visitor and park staff safety by decreasing the potential of rock fall directly upon the hiking trail.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

2. <u>AIR</u> 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			2a
b. Creation of objectionable odors?			X			2b
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				
e. ***For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regs? (Also see 2a.)		X				
f. Other:		X				

2 a/b. Minor and temporary dust and vehicle emissions would be created by construction equipment during the creation of the building foundations and structure and the digging of trenches to connect utility and waste water systems. Additionally, removal of the existing contact station and shed could contribute to the deterioration of normal air quality levels for a limited time.

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\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

3. <u>WATER</u> 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		yes	3b
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				3g
h. Increase in risk of contamination of surface or groundwater?			X		yes	3h
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				
l. ****For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		X				
m. ***For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		X				
n. Other:		X				

- 3b. Changes in surface runoff are expected to be minimal since Best Management Practices will be used through the duration of the construction. Any disturbed areas around the proposed new building and old contact station will be reseeded to minimize any long-term impacts and reduce the opportunity of weed infestations.
- 3g. The proposed project is likely not tap into the present underground water resources because of the difficulty of locating a good water sources, which is based upon information from a Billings School of Mines hydrologist. Water will likely continue to be trucked in and stored in cisterns for use at the visitor contact station.
- 3h. The installation of a new septic system for the new restrooms will meet county sanitation requirements so that no contamination of groundwater will occur and they will be maintained by FWP to ensure efficiency. See park map for the anticipated location of septic drain field.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

4. <u>VEGETATION</u> 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		yes	4a
b. Alteration of a plant community?			X		yes	4b
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				4c
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		yes	4e
f. ****For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		X				
g. Other:		X				

4 a/b. The proposed construction at Pictograph State Park will require the removal of under 1/2 acre of vegetation to accommodate the visitor contact station's foundation and will disturb small areas of vegetation as below ground utility and septic connections are established. Areas that are disturbed by construction efforts and the removal of the old contact office and shed and not covered by the new structures will be reseeded with a native dryland seed mix. The effects of these changes will not constitute significant changes to the diversity or abundance of the plant species in the area.

The anticipated realignment of the trail near Ghost and Middle Caves will require the removal of some natural grasses and shrubs for a trail that can accommodate visitors with strollers and wheelchairs.

Since the proposed natural amphitheater will require approximately 900 square feet to be mowed periodically in order to designate the public area and to make the area more conducive for visitor to sit on the ground during presentations. To assist the survival of the native vegetation at the site of the amphitheater, park staff will water the area on a regular basis.

4c. A search of the Montana Natural Heritage Program's (MNHP) species of concern database found no vascular or non-vascular plants of significance in Pictograph Cave State Park where the proposed project is to take place.

4e. Construction at the site will likely increase the possibility of noxious weeds becoming established. There are already infestations of goatshead around the parking area and the existing contact station. Reseeding disrupted soils after construction will limit the potential for additional weed infestation by providing competition from a mix of local grasses. Control efforts will follow the guidelines presented in the FWP Statewide Integrated Noxious Weed Management Plan (scheduled for completion in December 2007) and will continue to be contracted by the Park Manager to a private weed control contractor.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

** 5. <u>FISH/WILDLIFE</u> 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			5b
c. Changes in the diversity or abundance of nongame species?			X			5c
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				5f
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			X			5g
h. ****For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		X				
i. ***For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		X				
j. Other:		X				

5 b/c/f/g. The Park provides habitat for a variety of small mammals such as mice, chipmunks, rabbits, porcupines, and marmots. Migratory and non-migratory songbirds (cliff swallow, Northern flicker, Western meadowlark, lark sparrow) and birds of prey (American kestrel and prairie falcon) inhabit the general area. Larger mammals that use the park on a limited basis are foxes, coyotes, mule deer, and mountain lions. These species will likely avoid the construction areas but will return to the area when the proposed projects in the area are completed and noise levels return to normal.

A search of the Montana Natural Heritage database revealed three sensitive species in the vicinity of the proposed area of construction, the Black-tailed prairie dog, Western Hog-nosed snake, and Milksnake. Of the three, only the Milksnake is thought to possibly be present at Pictograph Cave State Park. However, there have been no observations of it within the park's boundaries.

It is the opinion of FWP's non-game wildlife biologist the proposed projects will not have any long term, negative impacts on any of the species.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

## B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT *					Comment Index
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	
a. Increases in existing noise levels?			X			6a
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				
e. Other:		X				

- 6 a/b. There would be a temporary increase in noise levels at the caves due to the addition of the construction equipment and contracting staff working at the project sites. After the completion of the project, noise levels at the site will return to normal levels. The closest neighbor to the proposed construction area is approximately ½ mile northwest of the entrance and is unlikely to be disturbed by the sounds of construction efforts.

Since a portion of the proposed construction of the project elements is anticipated to occur during the Park's tourist season, some visitors might decide to postpone their visit to another time or visit another State Park all together.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

7. <u>LAND USE</u> 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		Yes	7a
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				
e. Other:		X				

7a. The proposed improvements at Pictograph Cave State Park will not interfere with the current activities at the site as it is used by the general public for hiking, picnicking, and sightseeing. There is a chance that if a retail area were established in the visitor contact station, profits would support future activities at the Park.

There is a working ranch surrounding the Park. Currently, the ranch's owner allows cattle to wander and graze the margins along the Park's access road (Colburn Road). The additional traffic on the road during the proposed construction period may require the cattle to be restricted to pastures to decrease the possibility of accidents. FWP staff will work with the ranch owner to coordinate the best arrangement during the construction effort.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

8. <b>RISK/HEALTH HAZARDS</b>	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action result in:						
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		yes	8a
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				
d. ***For P-R/D-J, will any chemical toxicants be used? (Also see 8a)			X		yes	8d
e. Other:		X				

8 a/d. Chemical spraying may be used to deter the establishment and growth of noxious weeds in the proposed construction areas. Weed treatment would be conducted only by a trained professional licensed in the State of Montana under the guidelines of the FWP Statewide Integrated Noxious Weed Management Plan (scheduled for completion in December 2007).

9. <b>COMMUNITY IMPACT</b>	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action result in:						
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				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?			X			9e
f. Other:		X				

9e. The proposed construction will require the transportation of heavy equipment to the site of the new building. When necessary, traffic signs will be placed at appropriate locations along Colburn Road to warn those using the road of the movement of the construction equipment. Since the proposed construction is expected to begin during the tourist season, it is anticipated there will be some added congestion on Colburn Road. This inconvenience to visitors to the area and local residents will be intermittent during the construction of each element of the proposed park improvements.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> 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			10a
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			10c
d. Will the proposed action result in increased use of any energy source?			X			10d
e. **Define projected revenue sources						10e
f. **Define projected maintenance costs.						10f
g. Other:		X				

10a. The proposed new building would be designed to include a public restroom that will require a new septic drain field to be constructed. The new drain field will meet County Sanitarian requirements and will be maintained by FWP staff to ensure efficiency. The new building will require connection to the existing or new cistern. The existing vault latrine will be removed or moved to a suitable location.

10c. The new building will require connection to existing and new underground utilities.

10d. FWP anticipates the overall the use of electricity will increase slightly because proposed new structure will be larger than the current contact station.

10e. The proposed visitor contact station (Alternative B) at Pictograph Cave State Park is estimated to cost \$400,000, of which will be paid by FWP capital funding approved by the 2007 Legislature.

Funding for the trail improvements and amphitheater have yet to be identified. It is expected that some of the funding required for the trails will come from grants and department resources. Anticipated funding for amphitheater will be from department capital funding.

10f. The annual park maintenance costs are not expected to significantly increase, since the proposed visitor contact station will be built with construction materials that will require minimal maintenance and will eliminate the \$255 per month rental cost for the existing contact station. A maintenance budget already exists for the current trail, which will not change, and the amphitheater's design is likely require minimal maintenance.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

<b>** 11. AESTHETICS/RECREATION</b> <b>Will the proposed action result in:</b>	<b>IMPACT *</b>					
	<b>Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
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				11b
c. **Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		X				11c
d. ***For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		X				
e. Other:		X				

11b. The proposed new improvements will meet the aesthetic standards defined in the 2003 Pictograph Cave State Park Management Plan, which notes that any new building or facilities blend harmoniously with the natural environment and with the view from the mouth of the Pictograph Cave.

11c. There will be no impact on tourism opportunities at the site. See *Appendix D* for the Tourism Reports.

<b>12. CULTURAL/HISTORICAL RESOURCES</b> <b>Will the proposed action result in:</b>	<b>IMPACT *</b>					
	<b>Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
a. **Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?				X	possibly	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				
d. ****For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)				X	likely	12d
e. Other:		X				

12 a/d. Pictograph Cave State Park is listed as a Historic Landmark and is known for its many artifacts left by ancient peoples. FWP will work closely with the Montana State Historic and Preservation Office, who will describe the appropriate actions to be taken by the Department to limit disturbance to cultural significant areas and mitigate the chances of damage to artifacts, when the design of the proposed visitor contact station, trails, and amphitheater are defined and the anticipated locations of buried utility lines and septic drain field are identified.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

## SIGNIFICANCE CRITERIA

13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u>  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	yes	13a
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				
f. ***For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		X				
g. ****For P-R/D-J, list any federal or state permits required.		X				

- 13a. Since numerous historic artifacts have been discovered within the boundaries of Pictograph Cave State Park, there is the potential that any groundbreaking activities could disturb artifact-rich areas previously unidentified by the State Historic and Preservation Office (SHPO). FWP is committed to work with SHPO to ensure that any groundbreaking action consider and avoid where possible, impacts to archaeological resources. If impacts are unavoidable, FWP will take steps to appropriately mitigate those effects.

If Alternative B (proposed action) is initiated, it would have a permanent localized impact on the park because of the disturbance to the soil and vegetation at the locations of the new building, realigned trails, and amphitheater. There would be no long-term impacts to either resident or transient wildlife after the construction period is completed.

\* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

\*\* Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

\*\*\* Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

\*\*\*\* Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

**2. Mitigation, stipulation, or other control measures enforceable by the agency or another government agency:**

Final plans and specifications for the visitor contact station and amphitheater will be developed by a state appointed engineering consultant in conjunction with FWP engineering staff. FWP engineers will design the realigned section of the trail. All state and federal permits will be obtained by FWP. A private contractor selected through the State's competitive bid process will complete construction. Final inspection will be the responsibility of the FWP Design and Construction Bureau.

State pesticide use laws and regulations will be followed. Application records will be submitted to the Montana Department of Agriculture as required every five-years.

**PART III. NARRATIVE EVALUATION AND COMMENT**

The proposed action focuses upon improving the facilities at Pictograph Cave State Park to meet the current and future needs of the visitors and park staff. The projected visitor contact station will offer visitors an easily accessible area and a convenient location to seek information about the park, attend educational presentations, and enjoy other amenities. Furthermore, the visitor contact station will enhance visitor's understanding of the historic peoples that used the caves and overall experience at the park through exhibits and displays within the building.

The improvements to the hiking trail (i.e. realignment away from the rock cliffs and new surface to the existing portion) will improve visitor and park staff safety by reducing the potential of injuries caused by rock falls and walking on a slippery surface.

The additional of the amphitheater to the park will allow for outdoor interpretive presentation and a new venue for group events.

Because of the scope of the proposed improvements, some impact to the human and physical environment is expected. Most noteworthy, the proposed construction could affect yet undiscovered cultural artifacts that are potentially in the anticipated project areas. As the specific locations of the building, amphitheater, utility lines, water lines, and septic drain field are defined, FWP will work with the State Historic Preservation Office to determine what ground breaking methods will have the least effects to those sites, adequate and proper protocols during construction, and what steps should be taken if new artifacts are discovered during the construction process. FWP is committed to preserving the integrity of the historic State Park and will take the appropriate steps to mitigate the construction impacts to the environment and the cultural resources within the park. These also might provide opportunities for volunteer and interpretive activities for the public such as excavations and demonstrations.

Beyond the potential threat to cultural resources, other minor impacts previously noted are expected to be only for the duration of the construction period with no lasting negative effects on the human (local residents) or physical (wildlife) environment beyond the construction period. For those actions that cause impacts requiring mitigation, such as the digging of foundation for the building, construction of the amphitheater, and reclamation efforts will be taken to reseed disturbed areas to decrease the chance of noxious weeds being established, limit new erosion patterns from being established, and restore the natural setting of the park.

## **PART IV. PUBLIC PARTICIPATION**

### **1. Level of public involvement.**

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

- Two public notices in each of these papers: *Helena Independent Record* and *The Billings Gazette*;
- One statewide press release;
- Public notice on the Fish, Wildlife & Parks web page: <http://fwp.mt.gov>.

Copies of this environmental assessment will be distributed to the neighboring landowners and interested parties to ensure their knowledge of the proposed project. Furthermore, comments will be solicited from the park's advisory group, an informally organized group of citizens interested in the park.

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 (30) thirty days following the publication of the second legal notice in area newspapers. Written comments will be accepted until 5:00 p.m., October 22, 2007 and can be mailed to the address below:

Pictograph Cave State Park Visitor contact station  
Montana Fish, Wildlife & Parks  
2300 Lake Elmo Dr.  
Billings, MT 59105  
406-247-2940

Or email comments to: [dhabermann@mt.gov](mailto:dhabermann@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.**

No, even though there is the potential for the disturbance of cultural resources. FWP is committed to open communication with the State Historical Preservation Office during the projects to avoid known locations of artifacts or sites of cultural significance. As the locations for the improvements and if previously unidentified artifacts are discovered during the construction process, FWP will implement a mitigation plan to limit impacts. The impact to the human environment will be of a short duration, geographically limited, and will enhance the experience available at the park. Also, influences to wildlife will be limited and short term. Therefore, an EIS is not necessary and an EA is the appropriate level of analysis.

**2. Name, title, address and phone number of the person(s) responsible for preparing the EA:**

Doug Habermann  
Region 5 Parks Manager  
Montana Fish, Wildlife & Parks  
2300 Lake Elmo Dr.  
Billings, MT 59105  
406-247-2954

Rebecca Cooper  
MEPA Coordinator  
Montana Fish, Wildlife & Parks  
1420 E. 6<sup>th</sup> Ave.  
Helena MT 59601  
406-444-4756

Terri Walters  
Parks Operations Supervisor  
Montana Fish, Wildlife & Parks  
2300 Lake Elmo Dr.  
Billings, MT 59105  
406-247-2955

**3. List of agencies consulted during preparation of the EA:**

Montana Fish, Wildlife & Parks  
Parks Division  
Wildlife Division  
Design & Construction Bureau  
Legal Bureau  
Montana State Historic Preservation Office (SHPO)  
Montana Department of Commerce – Tourism  
Montana Natural Heritage Program – Natural Resources Information System (NRIS)  
U.S. Department of Agriculture – Natural Resources Conservation Service

**APPENDICES**

- A. MCA 23-1-110 Qualification Checklist
- B. Pictograph Cave State Park Map
- C. Concept Map of the Improvements
- D. Tourism Reports – Department of Commerce

**APPENDIX A**  
**23-1-110 MCA**  
**PROJECT QUALIFICATION CHECKLIST**

**Date:** July 30, 2007

**Person Reviewing:** Rebecca Cooper

**Project Location:** Pictograph Cave State Park, Yellowstone County

**Description of Proposed Work:** See improvements described on pages 3 & 4.

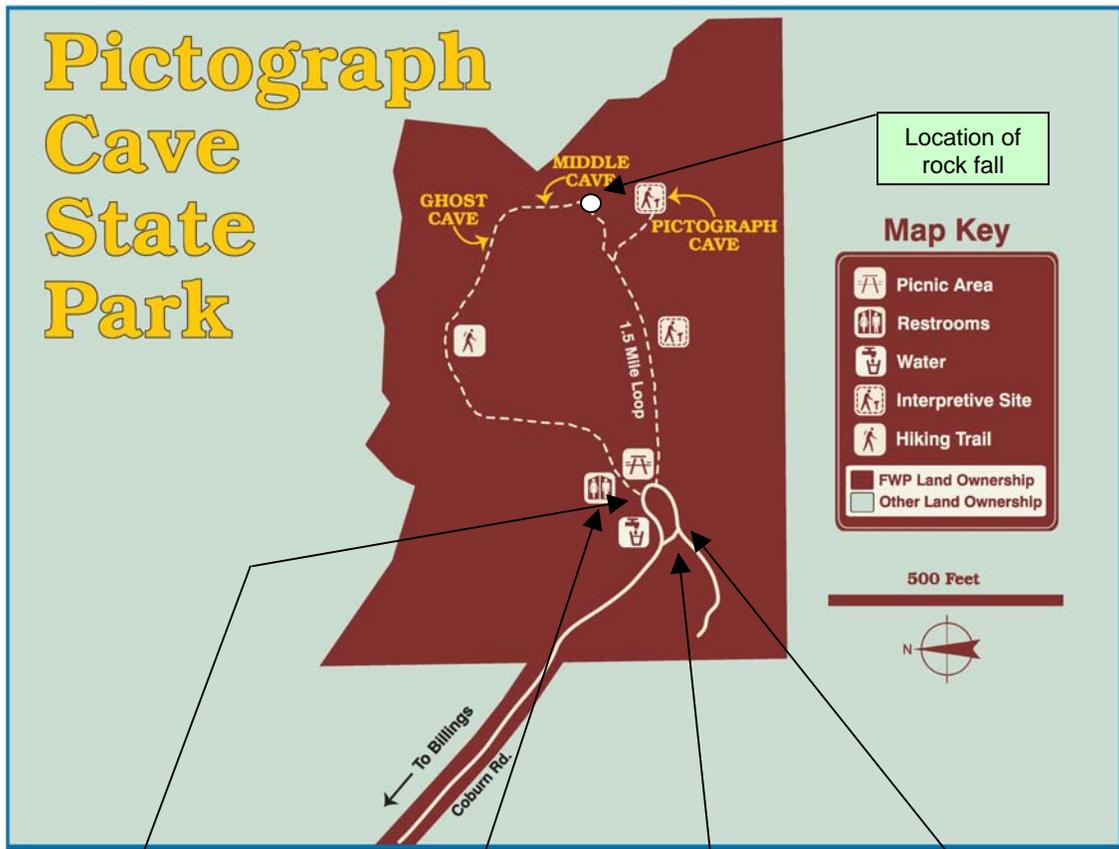
The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under 23-1-110 rules. (Please check ✓ all that apply and comment as necessary.)

- A. New roadway or trail built over undisturbed land?  
Comments: *It is likely the realignment of the hiking trail will require it to be constructed in an undisturbed area.*
  
- B. New building construction (buildings <100 sf and vault latrines exempt)?  
Comments: *The proposed new visitor contact station is expected to be greater than 100 s.f.*
  
- C. Any excavation of 20 c.y. or greater?  
Comments: *The proposed new visitor contact station would require the excavation of more than 20 cubic yards of dirt to accommodate its foundation.*
  
- 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: *Yes, FWP will work closely with SHPO as the anticipated locations of the visitor contact station and its utility lines and septic drain field, as well as the locations of the realigned trail and amphitheater, are defined to ensure disturbances to culturally sensitive areas are avoided as much as possible.*

- [ ] H. Any new above ground utility lines?  
Comments: *No, current design of the new building does include the new utility lines to be buried.*
- [ ] 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: *The realigned trail will change some of use patterns of visitors accessing the Middle and Ghost Caves, but the realignment will improve visitor and park staff safety because the trail will no longer be vulnerable to rock falls.*

If any of the above are checked, 23-1-110 MCA rules apply to this proposed work and should be documented on the MEPA/HB495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

# APPENDIX B



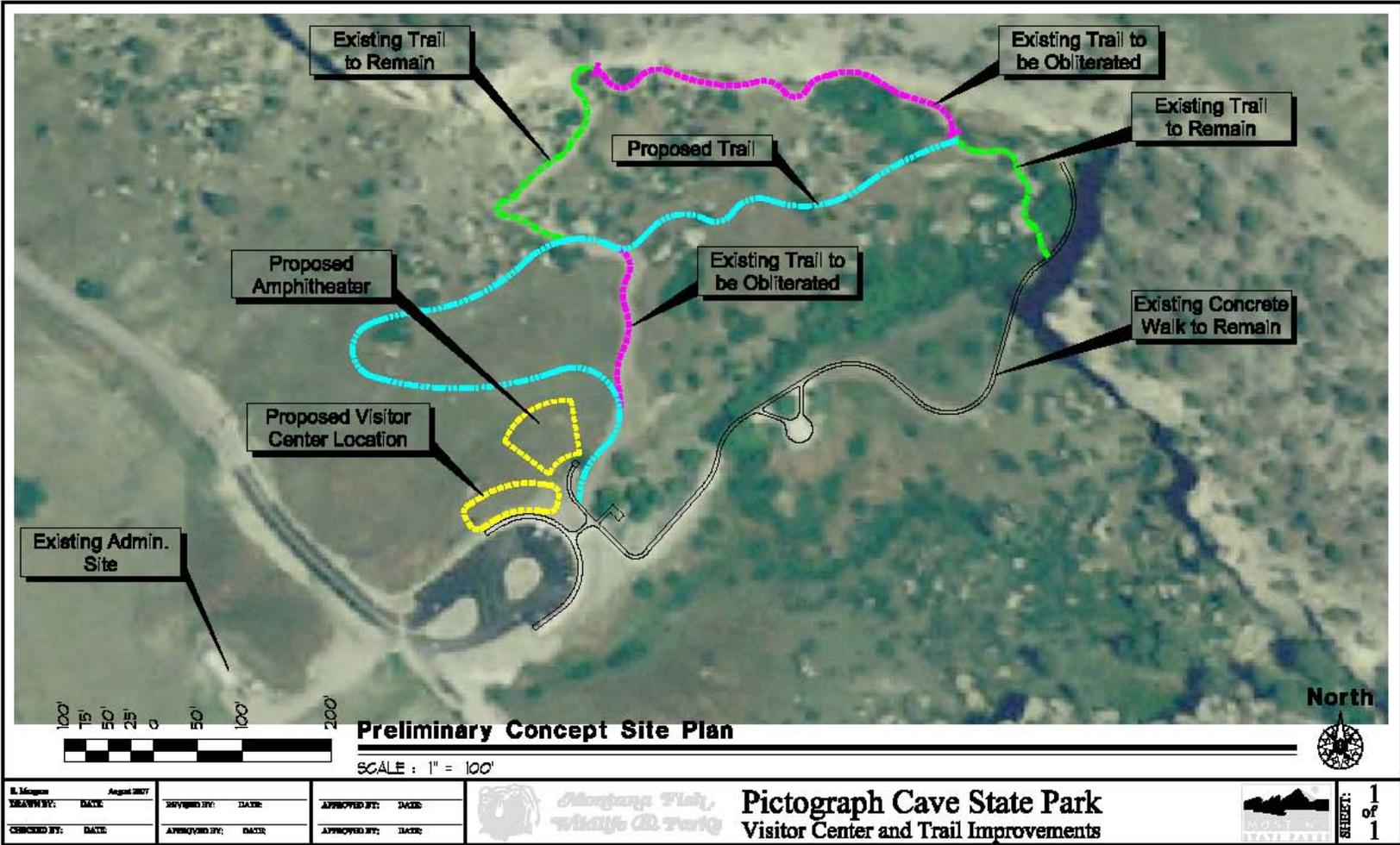
Anticipated location of the proposed visitor contact station

Anticipated location of amphitheater

Location of existing contact station

Anticipated location of new drain field

# APPENDIX C



# APPENDIX D

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

The Montana Department of Fish, Wildlife and Parks (FWP) 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:

Victor Bjornberg, Tourism Development Coordinator  
Travel Montana-Department of Commerce  
PO Box 200533  
Helena, MT 59620-0533

**Project Name:** Pictograph Cave State Park Visitors Center, Yellowstone County

**Project Description:** FWP proposes to improve visitor experience and staff administrative offices through the following action:

- Build a new building adjacent to the existing parking lot at the park that will become a visitor center. This would replace the existing small contact station (similar to a cargo box) that is currently being used to meet guests at and as an administrative office, which is across the road from the parking area. The larger building is expected to include a lobby/visitor contact area, administrative offices, exhibit area, retail space, public restrooms, storage space, and a classroom for educational presentations. This relocation will increase the visibility and availability of staff for visitors.

The proposed new building would meet the aesthetic standards defined in the 2002 Pictograph Cave State Park Management Plan, which notes that any new building blend harmoniously with the natural environment and with the view from the mouth of the Pictograph Cave.

- Removal of the existing contact station and adjoining storage shed.

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

The project appears to improve and expand visitor services at Pictograph Cave State Park. That could have a positive effect on the area's tourism economy.

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

NO

YES

If YES, briefly describe:

It improves both quality and quantity of the rec & tourism opportunities at the state park

Signature

Victor B. Smith

Date 5-15-07

2/93  
7/98sed

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

The Montana Department of Fish, Wildlife and Parks (FWP) 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:

Victor Bjornberg, Tourism Development Coordinator  
Travel Montana-Department of Commerce  
PO Box 200533  
Helena, MT 59620-0533

**Project Name:** Pictograph Cave State Park Amphitheater & Trails Improvements, Yellowstone County

**Project Description:** FWP proposes to improve visitor experience through the following actions:

- Build a new amphitheater, whose location is anticipated to be above the new visitor center. The amphitheater would allow for the expansion of educational programs, the accommodation of larger groups at presentations, and a pleasant place for visitors to enjoy the ambiance of the park.
- The trail improvements are required since a portion of the trail between Pictograph and Middle Caves is blocked due to a rock fall (May 2007). The existing trail would be realigned around the fall area and away from the rock cliffs to improve visitor and park staff safety and provide an accessible route to view all the caves. As a part of the improvements, the Department anticipates it will also remove the existing asphalt path and replace it with a gravel trail, which would be wider than the existing path to accommodate groups and strollers.

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

NO

YES

If YES, briefly describe:

As described the project appears to improve visitor facilities and program opportunities. Only concern would be in making the trail gravel will that cause access problems for wheelchairs, walkers, etc? If it does cause problems, this would have a negative impact on visitor access.

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

NO

YES

If YES, briefly describe:

As described, project appears to improve both quality & quantity of tourism & recreation opportunities. Same concern here regarding trail surface material. Needs to allow ADA access.

Signature

Victor Bjornberg

Date 7-27-07

2/93  
7/98sed