

Pompeys Pillar

**Environmental Assessment/Amendment
for the
Billings Resource Management Plan
Billings Resource Area
Miles City District, Montana**

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

1996

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3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).

4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs).

Relevance Finding

Pompeys Pillar is relevant under Criterion 1 as containing significant historic and cultural values. Pompeys Pillar is the site of Captain William Clark's signature, inscribed July 25, 1806 during the Clark party's return journey from the Pacific coast. Pompeys Pillar served as a significant landmark during the subsequent fur trade and exploration period, during the final phases of Euro-American expansion into the area in the late nineteenth century, and during the historic settlement and modern periods. Beginning with the earliest written accounts of travelers passing the location, the Clark signature and the fame of the Pillar as a landmark associated with the Lewis and Clark expedition have been universally cited as the site's most important characteristic.

Additional significance is recognized today in that Pompeys Pillar is a register of visitors to the area during historic times. Prompted in part perhaps by the Clark signature, inscriptions were

left on the NHL by historical frontier figures of prominence and of obscurity, documenting events of importance to the Euro-American conquest of the region. Marks were left on the NHL by trappers and merchants engaged in the Rocky Mountain fur trade, by miners seeking the mineral bonanza in western Montana of the 1860s, by travelers who had arrived in Montana by way of the Bozeman and Bridger Trails, steamboat rivermen hauling freight into the interior of the Missouri basin, military and militia engaged in the Sioux wars of the 1860s and 1870s, cattlemen, homesteaders, and their descendants.

The Pompeys Pillar property is within the historic Huntley Irrigation Project. Development of the Huntley project in the early part of the twentieth century allowed the intensive agricultural settlement pattern characteristic of this part of the Yellowstone Valley today. The Huntley main canal is considered eligible for the National Register of Historic Places, and by extension, other components of the historic irrigation system are also eligible, including those on the Pillar property. The system of irrigation laterals and drains in the presently cultivated areas to the south and east of the NHL are considered a significant historic resource, relevant to designation of the area as an ACEC.

Pompeys Pillar is relevant under Criterion 2 as a significant fish and wildlife resource. Short term concentrations of up to 100 bald eagles, a threatened species, have been documented at Pompeys Pillar, and an active bald eagle nest was

noted on the property in 1991 and 1992. The area's wildlife species are typical of the river bottom environment of the middle Yellowstone Valley, in the early nineteenth century, at the time of Clark's visit. The diverse habitat along the Yellowstone River supports greater species diversity in the area.

Pompeys Pillar is also relevant under Criterion 3 as a natural process or system. The cottonwood forest along the river exemplifies the riparian ecosystem typical of the middle Yellowstone Valley at the time of Clark's visit.

Importance Criteria

In order to be considered important the value, resource, system, process, or hazard is characterized by one or more of the following:

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of the Federal Lands Policy and Management Act.
4. Has qualities which warrant highlighting in order to satisfy public or

management concerns about safety and public welfare.

5. Poses a significant threat to human life and safety or to property.

Importance Finding

Pompeys Pillar is important under criterion 1 in that it has qualities which are of more than local significance. Captain William Clark's signature on Pompeys Pillar is the only known on-site physical reminder of the Lewis and Clark Expedition. The site is evocative of the nineteenth century westward movement of Euro-American culture, and particularly of the official exploration and incorporation of the Louisiana Purchase into the United States, and as such it is of national importance. Subsequent signatures on the NHL are reminders of events and figures of national and regional significance relating to the Euro-American exploration, conquest, and settling of the West.

Pompeys Pillar is important under criterion 2 as a fragile and irreplaceable resource which is vulnerable to adverse change. The signatures and rock art on the NHL are extremely fragile and are vulnerable to erosion and to vandalism.

Pompeys Pillar is important under criterion 3 in that it warrants protection to satisfy national priority concerns. It is one of the BLM's major recreation initiatives. The site has become an important destination for visitors with a wide range of knowledge of, and interest in, the historic past of North America and particularly of the United

States.

Summary

As discussed above, Pompeys Pillar meets both the relevance and importance criteria. The other factor that must be met in order for an area to be considered as a potential ACEC is that there is a need for special management attention to protect the relevant and important values.

Visitation is increasing and has the potential to adversely impact the area. In 1992, the first season under BLM administration, visitation at Pompeys Pillar reached 20,000 visitors. Visitation has increased annually and exceeded 40,000 visits in 1995. Visitation is likely to exceed the area's capacity and create conflicts among users as well as put the resources at risk. In order to allow visitors to enjoy the opportunities offered at Pompeys Pillar, special attention must be paid to protecting the historic features, protecting the riparian values and enhancing wildlife resources through managing the habitat.

Planning Issues

A multitude of sources were used to identify issues for this EA. Issues were developed both from inside and outside the agency. For example, a three-day workshop was held in 1993 to generate development scenarios. A team of BLM employees met in August, 1995 to develop a preliminary list of issues. Two public meetings were held on October 5, 1995. The following issues have been identified for analysis:

How the public lands surrounding the NHL are managed is an issue. The alternatives explore a range of management options for these lands.

There are many points of view on what kinds of recreational experiences should be managed for at Pompeys Pillar. These range from a site with very little development to a major recreation facility. Related to this are issues such as the location of the facilities, other recreational uses that may or may not be appropriate, the interpretive themes, etc.

Some feel the site should include river access for launching boats, while others feel traffic would detract from the theme of the site.

There are some who would like to see provisions for overnight camping. Others would like visitor use confined to day use only.

Historically, the area has been farmed. Currently, about 200 acres are being farmed. Some feel farming is part of the history of Pompeys Pillar and should continue, while others feel farming is not appropriate.

There is concern that commercial or urban development on adjacent private lands has the potential to adversely impact the historical setting of Pompeys Pillar. This issue has surfaced at all scoping meetings. It has been suggested that these impacts could be avoided through either the purchase of private lands or conservation easements. Regardless of which method would be used, negotiations

would only occur with willing landowners.

Currently, there is a limited amount of hunting that occurs in the area. This causes some concern for visitor safety.

Since acquisition of the site there have been problems with vehicles driving off established roads. Off-road travel has the potential to adversely impact cultural, vegetative and agricultural values.

Public safety is a concern. Hazards include the Yellowstone River and rattlesnakes. The river contains dangerous currents that have caused numerous drownings.

Protecting the natural and cultural resources is a concern. Visitor use has the potential to result in adverse impacts. Concerns include impacts from visitors climbing on the rock, leaving graffiti and driving off the established roads.

Concerns Considered, But Not Carried Forward For Analysis

Yellowstone County has plans to realign the county road just west of Pompeys Pillar and install a new bridge across the Yellowstone River. It has been suggested that BLM acquire the old bridge and use it as part of a hiking trail system. BLM feels this suggestion has merit, however, the issue was not carried forward for several reasons. The road right-of-way is situated on private land and there is no public

access to link visitors from public land to the bridge. The decision to pursue such a project does not require a land use planning decision.

Concern has been expressed that site development and visitor use has the potential to adversely impact bald eagles. It was suggested that BLM seasonally close the island to all activities. A closure is not addressed in this amendment for several reasons. Eagles have not nested on the island since 1992. If nesting does occur in the future, BLM would be required to address the issue at that time.

There has been some opposition to the wooden staircase that provides access to Clark's signature and to the top. This issue is not considered a land use allocation issue and will be more appropriately resolved at the activity planning level.

It appears that most people agree that the main interpretive topic for the site should relate to the Clark inscription and the Lewis and Clark expedition. However, many historical and natural events have occurred at Pompeys Pillar that are important. The scope of interpretation of events that have occurred at Pompeys Pillar is more appropriately addressed in activity planning.

BLM is required to consider impacts to wilderness and wild and scenic rivers. These resources are not present and will not be affected by this planning effort.

Chapter 2 - Proposed Actions and Alternatives

This section presents proposed actions and alternatives. Some of the actions that are occurring presently would not change regardless of the alternative selected. These actions are entitled "Actions Common to All Alternatives".

Four alternatives are presented. These range from the current management scheme to a highly developed recreation facility.

Alternative A

Alternative A approximates the existing situation. This is considered the No Action alternative. Under this alternative, Pompeys Pillar would be managed using the existing facilities and the current management scheme.

Alternative B

Alternative B is the most protective of natural and cultural values. It emphasizes reconstructing and maintaining the historic character of the landscape over a relatively large area near the NHL. This alternative presents a higher level of recreation development than is currently present, but removes visual obtrusions to some distance from the NHL. Alternative B also eliminates farming.

Alternative C

This is the BLM's preferred alternative. Alternative C presents a moderate approach to ACEC management emphasizing both the recreation and historic setting. This alternative presents a higher level of facility development than Alternative B, but much less than Alternative D. This alternative also recognizes the current rural agricultural nature of this portion of the Yellowstone Valley.

Alternative D

Alternative D is the least protective of natural and cultural values. It presents a maximum recreation development and minimizes the historic setting. This alternative establishes Pompeys Pillar as a major tourist destination with a large visitor center and overnight camping facilities.

Planning Zones

Under Alternatives B, C and D, the site has been divided into three management zones. These zones, described below, emphasize different management objectives.

Historic Zone

The management objectives of this zone would be 1) to provide visitor access to Clark's signature and other historic inscriptions and rock art on the NHL and 2) to enhance the visitors' experience through providing landscapes that appear similar to the natural setting Clark viewed in 1806.

Modifications of the landscape would be the minimum necessary for visitor safety and protection of the signature and other rock art from further deterioration.

Historic Zone - Developed

The management objective of this zone would be to provide an area where most facilities would be placed. Facilities would be designed to enhance visitor experiences through interpretation and visitor services. Facilities would include a visitor center, vehicle parking, picnic area, interpretive displays, demonstrations and, under Alternative D, visitor conveniences and overnight camping facilities.

General Management Zone (Alternatives B and D)

The management objectives of this zone would be to: 1) improve and/or maintain wildlife habitat condition and 2) enhance recreation opportunities.

General Management Zone (Alternative C)

The management objectives of this zone would be to: 1) improve and/or maintain wildlife habitat condition, 2) enhance recreation opportunities and 3) utilize agriculture to further general management.

Actions Common To All Alternatives

The following actions would be taken

regardless of the management alternative selected.

Air Quality

Management activities would be conducted in a manner that would preserve the Montana Class II air quality designation for Yellowstone County.

Cultural Resources

Cultural resource inventories would be conducted before surface disturbing activities would be authorized. Effects to significant cultural resources would be avoided or mitigated per 36 CFR 800. Actions would also comply with P.L. 101-601, Native American Graves Protection and Repatriation Act.

Recreation Management

Visitor access would be provided to Clark's signature.

The Pillar landform would continue to be managed as a National Historic Landmark.

Wading and swimming in the Yellowstone River would be discouraged.

Fish and Wildlife Habitat

Riparian/Wetland Habitat:

The natural riparian areas would be managed for Proper Functioning Condition (PFC). Functioning Condition

is described in Appendix 2.

Threatened and Endangered Species:

If bald eagles re-nest on the island, consultation with the U.S. Fish and Wildlife Service would be initiated. If necessary, actions would be taken to reduce potential human impacts to the nest. Public consultation would be part of the process.

If the peregrine falcon is re-established in the region and nests near Pompeys Pillar, consultation with the U.S. Fish and Wildlife Service would occur to determine if any actions would be needed to protect the species or its habitat.

Neotropical Migratory Birds:

Because there are about 180 species of these neotropical (New World Tropics) birds in Montana, they will not be discussed individually. These birds summer in the U.S. and Canada and winter in the Caribbean, Mexico, and Central and South America. The habitat objective for neotropical birds would be to maintain or improve riparian vegetation condition to represent diverse, healthy plant communities.

Fire Management

All wildfires would continue to be suppressed. Initial attack would continue to be managed through agreements with local fire departments.

Forestry

The management objective would be to maintain the existing canopy cover of the cottonwood bottoms. Wood product sales would not be allowed. Periodic removal of dead or dying branches or trees would occur in areas where management actions encourage visitor use and visitor safety is at risk.

Hazardous Materials and Waste Management

The management objective would be to minimize the potential for hazardous materials contamination. All activities involving hazardous materials and waste would be conducted in accordance with BLM's current and future policies and procedures. No authorizations would be allowed for solid waste or hazardous materials disposal facilities on site.

Livestock Grazing

Livestock grazing could be authorized as a management tool for vegetation control such as weed control or wildlife habitat management.

Soil and Water Resources

The management objectives would be to maintain soil productivity, prevent and/or minimize accelerated soil erosion, prevent and/or minimize flood damage and protect municipal and domestic water supplies.

Weed and Insect Control

The long term goal would be to use an integrated system of control that maximizes mechanical and biological weed controls while minimizing the use of chemicals.

Support would continue for testing the effectiveness of biological agents. When biological agents become as or more effective than chemicals, the use of chemicals would be reduced to the minimum amount necessary.

Management Alternatives

Alternative A - No Action

This alternative presents the current management situation. Pompeys Pillar would be managed as a day use site under the current laws and regulations with no additional special designation in support of the six acres that are designated a National Historic Landmark.

Management Objective

The management objective would be to allow a range of multiple resource uses while protecting the values of the NHL and providing visitor access to Pompeys Pillar.

Cultural Resources

Cultural resources would continue to be managed under federal laws, BLM policies and in consultation with the Montana State Historic Preservation Officer (SHPO).

Recreation Management

The existing facilities would continue to be staffed from Memorial Day weekend to September 30. Visitors would be allowed to walk in outside these dates.

The existing facilities would remain in place. No new facilities would be constructed. The artwork and books would not be available for visitor enjoyment and viewing on site.

Discharge of firearms or weapons would be prohibited west of the Tschida farmstead access road. The remainder of Pompeys Pillar would be managed with no special restrictions and in accordance with State law (Map 5).

Vehicle travel would be controlled using fences and locked gates. The current "open" off-road vehicle designation would remain in affect for the island.

Fish and Wildlife Habitat

Wildlife habitat management would be accomplished primarily through farming under a Sikes Act agreement to provide about 26 acres of standing crops for forage and cover.

Animal Damage Control

Activities would only occur to reduce

human safety threats or protect investments at the site.

Fire Management

Suppression would continue to be at the discretion of the Resource Advisor.

Lands and Realty

The existing land base would be maintained at 473 acres.

Any future proposals for leases and rights-of-way would be managed per regulations and handled on a case-by-case basis.

Minerals

No actions would be taken to secure the mineral estate.

Alternative B

This alternative presents a minimum development scenario. The NHL and some surrounding land, about 189 acres, would be designated a Historic Zone (see Alternative B map). This zone would be managed to approximate the historic setting of 1806. This area, at a minimum, would be reclaimed to native vegetation similar to an early 19th century setting. A Historic Zone - Developed would be located outside the Historic Zone to provide visitor services. The existing visitor center, restrooms and picnic area would be relocated to the developed zone. In addition, a network of interpretive trails and other visitor amenities would be added. A General Management Zone would

provide an area for wildlife habitat enhancement and recreation opportunities such as wildlife viewing, fishing and hunting.

Management Objective

The management objectives would be to emphasize the historic setting of 1806 with minimal facility development and visitor services, provide visitor access and protect the values of the NHL.

ACEC Designation

Pompeys Pillar would be designated an ACEC (see relevance and importance discussion on pages 3-6) excluding the three acres on the south side of the interstate. The ACEC would be divided into three management zones emphasizing different aspects of the setting near the NHL: 189 acres would be managed as a Historic Zone, 95 acres would be managed as Historic Zone - Developed and 185 acres would be managed as a General Management Zone.

Management prescriptions from this amendment and the subsequent activity plan would serve as the ACEC management plan.

Cultural Resources

Cultural resources would be managed under four primary management objectives, in priority order: (1) maintain the existing state of preservation of the rock art and inscription panels on Pompeys Pillar NHL through protection and, where feasible, physical

stabilization of these features; (2) identify, record, and evaluate, to the extent possible, such additional cultural properties as may be present; (3) identify appropriate uses for each of the prehistoric and historic cultural properties other than the NHL, and manage each of these sites within their allocated use(s) (Appendix 3); and (4) protect the sites allocated to public, conservation, sociocultural, scientific, or management use.

The Pompeys Pillar NHL was listed on the National Register of Historic Places in 1983. This six acre site, including the William Clark signature panel, the other rock art and inscription panels on the landform and the surrounding slopes which may harbor intact archaeological deposits, would be allocated to both conservation use and to strictly controlled public use for interpretive purposes.

All the cultural sites on the property other than the Pompeys Pillar NHL, would initially be allocated to scientific use, pending evaluation, consultation with the Montana SHPO and/or the Advisory Council for Historic Preservation (ACHP). After evaluation and comparison, sites would be assigned to one or more usage categories: scientific use, management use, socio-cultural use, conservation for future use, or public use for interpretive purposes. Sites with only slight remaining scientific potential could be fully documented and then discharged, meaning that their information potential is preserved in archival form and their physical existence would no longer constrain future management decisions.

Recreation Management

Pompeys Pillar would be managed as a day use site. The existing visitor contact station would be staffed from May through October. Outside the season dates visitors would be allowed to walk in.

The area near and around developed facilities would be closed to discharge of firearms or weapons. Firearm use in the southwest portion of Pompeys Pillar would be closed from May through October, coinciding with the season the facilities are open and staffed. From November through April, use of firearms would be restricted to shotguns and archery during legal hunting seasons. The remainder of the area would be open to the use of firearms during legal hunting seasons. (Map 6). The use of firearms could be further restricted if needed to protect safety or enjoyment of the site.

All motorized and nonmotorized vehicle travel would be restricted to designated roads and trails with the following exceptions: medical and other emergencies, BLM operations and maintenance, wildfire suppression, farm equipment within the agricultural areas only and authorized exceptions for the physically disabled. For purposes of clarification, cross country travel would not be allowed for over-the-snow vehicles or mountain bicycles.

The Tschida farmstead would be removed and reclaimed.

Pompeys Pillar would be managed under two visual resource management

objectives. The NHL would be managed under a Class II management objective. The objective of this class is to retain the existing character of the landscape. The level of change to the existing landscape should be low. Management activities may be seen, but not attract the attention of the casual observer.

The remainder of Pompeys Pillar would be managed under a Class III management objective. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract the attention but should not dominate the view of the casual observer.

A visual corridor would be maintained from the interchange to the NHL. Activities within the corridor would be managed so that the NHL dominates the view of visitors as they approach the site.

Historic Zone

Under this alternative, all existing facilities, except those necessary for public safety and access, would be relocated to the **Historic Zone - Developed**. The Historic Zone would reflect the historic setting of Captain Clark's visit in 1806, as much as possible.

At a minimum, visitor access would be provided through trails to the base of the NHL and the Yellowstone River.

The existing land base would be

maintained using bank stabilization along the Yellowstone River.

Farming would be excluded and the tilled ground restored to a setting characteristic of 1806. Current farming would be allowed to continue until displaced by restoration of the historic setting.

The existing access road would be closed and reclaimed.

Historic Zone - Developed

The existing visitor contact station, restrooms and picnic area would be relocated to this zone. New trails would be built to link the visitor contact station, picnic area and trails to the Historic Zone.

Farming would be excluded and the tilled ground restored to a setting characteristic of 1806. Current farming would be allowed to continue until displaced by facilities or restoration of the historic setting.

A new all weather entrance road would be constructed.

General Management Zone

Farming would be excluded. Low tillage farming would be used to manage wildlife habitat. Shelterbelt strips of shrubs and trees would be planted or maintained in a manner compatible with maintenance and access to the irrigation system. Shrub and tree plantings would be coordinated with the Huntley Project Irrigation District.

Facility development would include interpretative trails, fishing access and environmental education. This zone would also provide space, if needed, for maintenance facilities.

Fish and Wildlife Habitat

In both historic zones priority would be given to native wildlife species characteristic of the 1806 setting and still present on site. In the General Management Zone the priority wildlife species would be white-tailed deer, pheasants, Merriams wild turkey, and waterfowl. These game species would be considered a priority species because of their recreational value for hunting.

The management objectives would be to maintain natural riparian areas in Proper Functioning Condition, provide forage and cover with plantings and improve fisheries habitat on the channelized stream.

About 66 acres would be intensively managed for wildlife habitat. Actions would include planting crops for wildlife forage and cover. These crops could be harvested or replanted to improve vigor, provide weed control and improve habitat diversity and edge effect for wildlife.

Actions would be taken to enhance waterfowl, wetland and fisheries habitat. These actions would be consistent with land use planning objectives for Pompeys Pillar and would be subject to the existing rights-of-way of the Huntley Project Irrigation District and Bureau of Reclamation.

The channelized stream would be managed to reduce soil erosion, improve water quality, and improve fisheries or wetland habitat without reducing its functionality as part of the irrigation system. Actions to achieve this objective would include improving cover and overhanging bank vegetation, spawning areas, and pool to riffle ratios. Methods to increase pool to riffle ratio could include installation of instream structures such as bank deflectors, rock or log gabions or large boulder placement.

Waterfowl spring nesting and fall migration resting habitat in the 5-6 acre wetland would be enhanced by flooding the area 2-4 months longer.

Animal Damage Control

Animal damage control activities would be carried out only when control would be necessary to manage priority wildlife species and their habitat, to reduce potential threats to human safety or to target problem animals that have been identified on site.

All animal damage control activities would be in accordance with the following: "Environmental Assessment for Predator Management in Montana", MT-930-93-01, April, 1994; Decision Record for the Miles City District, April 22, 1994, and the Animal Damage Control Work Plan for Miles City District.

Fire Management

Pompeys Pillar would be divided into two fire suppression areas where initial

attack would be managed differently:
1) Intensive and 2) Conditional Intensive.

The Intensive suppression area would include all lands except the six acres of the NHL itself. All fires in the Intensive area would immediately be suppressed using available resources including dozers, motor graders, tractors with plows, air tankers and firefighting crews. Heavy equipment would not be allowed in riparian areas.

The Conditional Intensive suppression area would be the six acres of the NHL. Initial attack would be restricted to the application of water. No hand tools or mechanized equipment would be allowed within this area.

Prescribed fires would be used where it is determined fire is necessary to restore the natural environment and a prescription has been written and approved.

Lands and Realty

All lands acquired as Pompeys Pillar in 1991 and the adjacent island would be retained in public ownership with the following exception. Disposal of the three acre parcel south of Interstate 94 would be an option subject to an easement for retaining the billboard on site.

BLM's management goal would be to acquire adjacent private lands where acquisition is consistent with the land use planning objectives for Pompeys Pillar. Acquisition could be purchase in fee title, scenic or conservation

easement or some other agreement to preserve the rural characteristics of adjacent lands. Any acquisition, easement or agreement would be pursued only with willing land owners. The purpose for identifying the possibility of acquisitions is the concern that management of adjacent private lands would be considered as having an adverse affect on Pompeys Pillar if at some future date the lands were converted from agriculture to residential or commercial.

Future rights-of-way would be excluded from the Historic Zone, except those necessary to service the site facilities. There would be a 500-foot corridor paralleling the southern boundary of Pompeys Pillar to serve transmission and utility lines. Any future lines placed in this corridor west of the interchange would be buried. When existing above ground utilities west of the interchange are modified, attempts would be made to move them underground.

Minerals

For minerals that are privately owned, BLM would work with willing owners to secure title to the mineral estate through exchange or purchase.

For minerals that are federally owned, the following would apply:

For oil and gas activities, a No Surface Occupancy stipulation would apply to the entire site. Pompeys Pillar would be closed to mineral material sales.

Alternative C - Preferred

This alternative presents a moderate development scenario. The NHL and some surrounding land, about 90 acres, would be designated a Historic Zone (see Alternative C Map). This zone would be managed to approximate the historic setting of 1806. The Historic Zone, at a minimum, would be reclaimed to native vegetation similar to an early 19th century setting. A Historic Zone - Developed would be located outside the Historic Zone to provide visitor services with an adequate visitor center and a network of interpretive trails, picnic areas and other visitor amenities. The General Management Zone would provide a flexible management situation for the Pillar's future. A combination of farming and wildlife habitat enhancement would constitute the primary management prescription. Designated recreation/historical set asides within this zone could be used for future management when or if needed.

Management Objective

The management objectives would be to emphasize the recreation and historic setting of 1806 with a moderate level of facility development and visitor services, provide visitor access and protect the values of the NHL.

ACEC Designation

Pompeys Pillar would be designated an ACEC (see relevance and importance discussion on pages 3-6) excluding the three acres on the south side of the

interstate. The ACEC would be divided into three management zones emphasizing different aspects of the setting near the NHL: 90 acres would be managed as a Historic Zone, 110 acres would be managed as Historic Zone - Developed and 270 acres would be managed as a General Management Zone.

Management prescriptions from this amendment and the subsequent activity plan would serve as the ACEC management plan.

Cultural Resources

Cultural resources would be managed the same as described under Alternative B.

Recreation Management

Pompeys Pillar would be managed as a day use site. A new visitor center would be constructed. It would be staffed from May 1 to October 30. Outside the season dates visitors would be allowed to walk in.

Management of discharge of firearms would be the same as described under Alternative B (Map 6).

Motorized and nonmotorized vehicle travel would be managed the same as described for Alternative B.

The Tschida farmstead would be removed and reclaimed same as Alternative B.

The visual resource management objectives would be the same as under

Alternative B.

A visual corridor would be maintained the same as described in Alternative B.

Historic Zone

This zone would be managed primarily for providing visitor access to Clark's signature in a historic setting.

The existing visitor contact station and restrooms would remain in place to serve visitors and provide office space.

At a minimum, visitor access would be provided through trails to the base of the NHL and the Yellowstone River.

The existing land base would be maintained using bank stabilization along the Yellowstone River.

Farming would be excluded and the tilled ground restored to a setting characteristic of 1806. Current farming would be allowed to continue until displaced by restoration to the historic setting.

The existing access road would be closed and reclaimed.

Historic Zone - Developed

New facilities would include a moderate sized visitor center (about half the size of the proposed Lewis and Clark Visitor Center in Great Falls, MT), a highly developed picnic area and a trail system.

The visitor center would offer both indoor and outdoor interpretive

experiences on site and serve as the headquarters for special events, festivals and outreach activities. An interpretive trail would serve a good portion of the area.

Facilities would be developed to allow fishing access and take-out of non-motorized boats and boat docking.

Farming would be excluded and the tilled ground restored to a setting characteristic of 1806. Current farming would be allowed to continue until displaced by facilities or restoration to the historic setting.

The existing access road along the west boundary would be closed and reclaimed. A new all weather entrance road would be constructed.

General Management Zone

Farming would continue. For analysis purposes, a farming acreage of 150 acres is used to analyze environmental impacts and socioeconomic consequences. Depending on future development trends and visitor demand, farming on more or less acreage may be used to accomplish management goals. Where necessary, management of recreation, historic sites, and the historic setting could take precedence over agriculture and its associated wildlife habitat in this zone if visitor demand and management resources require such measures.

Farming practices would include leaving standing crops to provide forage and cover for wildlife. Standing crop acreage would be determined by BLM

and the Montana Department of Fish, Wildlife and Parks. Shelterbelt strips of shrubs and trees would be planted or maintained in a manner compatible with maintenance and access to the irrigation system. Shrub and tree plantings would be coordinated with the Huntley Project Irrigation District.

A new hiking trail system would be constructed to expand visitor access to the area and to provide additional fishing access. This zone would also provide space, if needed, for maintenance facilities.

Fish and Wildlife Habitat

Fish and wildlife habitat management would be the same as described in Alternative B except that farming would continue in the General Management Zone, and about 150 acres would be intensively managed for wildlife habitat.

Animal Damage Control

Animal damage control would be managed the same as described in Alternative B.

Fire Management

Fire suppression would be managed the same as described in Alternative B.

Lands and Realty

Lands and realty would be managed the same as described under Alternative B.

Minerals

Minerals would be managed the same as described under Alternative B.

Alternative D

This alternative presents a highly developed and intensively managed recreation facility. The Historic Zone would be confined to the six-acre NHL (see Alternative D Map). The Historic Zone - Developed would serve as the location for most of the new facilities. The General Management Zone would be for wildlife habitat enhancement, recreation demonstrations and recreation opportunities such as wildlife viewing, fishing and hunting.

Management Objective

The management objectives under this alternative would be to emphasize the recreation setting with a major recreation facility, provide visitor access and protect the values of the NHL.

ACEC Designation

Pompeys Pillar would be designated an ACEC (see relevance and importance discussion on pages 3-6) excluding the three acres on the south side of the interstate. The ACEC would be divided into three management zones emphasizing different aspects of the setting near the NHL: 6 acres would be managed as a Historic Zone, 244 acres would be managed as Historic Zone - Developed and 220 acres would be managed as a General Management Zone.

Management prescriptions from this amendment and the subsequent activity plan would serve as the ACEC management plan.

Cultural Resources

Cultural resources would be managed the same as described under Alternative B.

Recreation Management

Pompeys Pillar would be staffed and open yearlong with day use and overnight facilities.

The west half of Pompeys Pillar would be closed to discharge of any firearm or weapon. In the east half, firearms would be restricted to use of shotguns and archery during legal hunting seasons (Map 7). The use of firearms could be further restricted if needed to protect safety or enjoyment of the site.

Motorized and nonmotorized vehicle travel would be managed the same as described for Alternative B.

The Tschida farmstead would be removed and reclaimed the same as under Alternative B.

The visual resource management objectives would be the same as under Alternative B.

A visual corridor would be maintained the same as described under Alternative B.

Historic Zone

The NHL would be managed as the Historic Zone.

Visitor access in this zone would include access to other rock art and inscription panels and physically disabled access to Clark's signature.

Historic Zone - Developed

New facilities would include a large visitor center similar to the Oregon Trail Interpretive Center in Baker City, Oregon, full service overnight camping facilities, a highly developed picnic and day use area to serve group events, an interpretive trail system and facilities for fishing access, take-out of non-motorized boats and boat docking.

The visitor center would offer both indoor and outdoor interpretive experiences. The picnic/day use area would accommodate special events, festivals and outreach activities. The interpretive trail would service a good portion of the area.

Facilities would be developed to allow fishing access, take-out of non-motorized boats and boat docking.

Part of the area would provide outside historic demonstrations such as a live bison exhibit.

The existing visitor contact station, restrooms and parking lot would remain in place and serve as a support facility.

Farming would be excluded and the tilled ground restored to a setting

characteristic of 1806. Current farming would be allowed to continue until displaced by facilities or restoration to the historic setting.

The existing land base would be maintained using bank stabilization along the Yellowstone River.

The existing access road would be closed and reclaimed. A new all weather entrance road would be constructed to access the new facilities.

General Management Zone

Farming would be limited to about 50 acres. Depending on future development trends and visitor demand, farming on more or less acreage may be used to accomplish management goals. Where necessary, management of recreation, historic sites, and the historic setting could take precedence over agriculture and its associated wildlife habitat in this zone if visitor demand and management resources require such measures.

A new hiking/interpretive trail system would be constructed to expand visitor access to the area and to provide additional fishing access. This zone would also provide space, if needed, for maintenance facilities.

Fish and Wildlife Habitat

Priority wildlife species and habitat management actions would be the same as described in Alternative B except that about 50 acres would be intensively managed for wildlife habitat in the General Management Zone. This

would be accomplished using farming similar to the methods currently being used, or through planting crops for wildlife forage and cover, and periodically harvesting or replanting to improve vigor, provide weed control and improve habitat diversity and edge effect for wildlife.

Animal Damage Control

Animal damage control would be managed the same as described under Alternative B.

Fire Management

Fire suppression would be managed the same as described under Alternative B.

Lands

Lands and realty would be managed the same as described under Alternative B.

Minerals

Minerals would be managed the same as described under Alternative B.

Comparison of Alternatives

The following section contains two tables: 1) a summary comparison of management guidance or actions for the alternatives and 2) a comparison of the impacts of the alternatives.

SUMMARY COMPARISON OF ALTERNATIVES

Alternative A - No Action	Alternative B	Alternative C - Preferred	Alternative D
<p>This alternative presents the current management situation. Pompeys Pillar would be managed as a day use site under the current laws and regulations with no additional special designation in support of the six acres that are designated a National Historic Landmark.</p>	<p>This alternative presents a minimum development scenario. Pompeys Pillar would be divided into three management zones (see Alternative B map). The existing visitor center, restrooms and picnic area would be relocated and a network of interpretive trails and other visitor amenities added.</p>	<p>This alternative presents a moderate development scenario. Pompeys Pillar would be divided into three management zones (see Alternative C map). Existing facilities would remain in their current location. A new visitor center, picnic area and trails would be added.</p>	<p>This alternative presents a highly developed and intensively managed recreation facility. Pompeys Pillar would be divided into three management zones (see Alternative D map). Existing facilities would remain. A new large visitor center, picnic area, trails, outdoor exhibits and other visitor amenities would be added.</p>
<p>Management Objective</p>	<p>Management Objective</p>	<p>Management Objective</p>	<p>Management Objective</p>
<p>The management objective would be to allow a range of multiple resource uses while protecting the values of the NHL and providing visitor access to Pompeys Pillar.</p>	<p>The management objectives would be to emphasize the historic setting of 1806 with minimal facility development and visitor services, provide visitor access and protect the values of the NHL.</p>	<p>The management objectives would be to emphasize the recreation and historic setting of 1806 with a moderate level of facility development and visitor services, provide visitor access and protect the values of the NHL.</p>	<p>The management objectives under this alternative would be to emphasize the recreation setting with a major recreation facility, provide visitor access and protect the values of the NHL.</p>
<p>ACEC Designation</p>	<p>ACEC Designation</p>	<p>ACEC Designation</p>	<p>ACEC Designation</p>
<p>None</p>	<p>Pompeys Pillar would be designated an ACEC (see relevance and importance discussion on pages 3-6) excluding the three acres on the south side of the interstate. The ACEC would be divided into three management zones:</p>	<p>Same as B.</p>	<p>Same as B.</p>
<p>Historic Zone: 189 acres; Historic Zone - Developed: 95 acres General Management Zone: 195 acres.</p>	<p>Historic Zone: 189 acres; Historic Zone - Developed: 95 acres General Management Zone: 195 acres.</p>	<p>Historic Zone: 90 acres; Historic Zone - Developed: 110 acres General Management Zone: 270 acres</p>	<p>Historic Zone: 6 acres; Historic Zone-Developed: 244 acres; General Management Zone: 220 acres.</p>
<p>Management prescriptions from this amendment and the subsequent activity plan would serve as the ACEC management plan.</p>	<p>Same as B.</p>	<p>Same as B.</p>	<p>Same as B.</p>

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

Cultural Resources	Cultural Resources	Cultural Resources	Cultural Resources
<p>Cultural resources would continue to be managed under federal laws, BLM policies and in consultation with the State Historic Preservation Officer (SHPO).</p>	<p>Cultural resources would be managed under four primary management objectives, in priority order: (1) maintain the existing state of preservation of the rock art and inscription panels on Pompeys Pillar NHL through protection and, where feasible, physical stabilization of these features; (2) identify, record, and evaluate, to the extent possible, such additional cultural properties as may be present; (3) identify appropriate uses for each of the prehistoric and historic cultural properties other than the NHL, and manage each of these sites within their allocated use(s) (Appendix 3); and (4) protect the sites allocated to public, conservation, sociocultural, scientific, or management use.</p>	<p>Cultural resources would be managed the same as described under Alternative B.</p>	<p>Cultural resources would be managed the same as described under Alternative B.</p>
<p>The NHL would be allocated to both conservation use and to strictly controlled public use for interpretive purposes.</p>	<p>All the cultural sites on the property other than the NHL, would initially be allocated to scientific use, pending evaluation and consultation with the Montana SHPO and/or the Advisory Council for Historic Preservation (ACHP).</p>		

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

Recreation Management	Recreation Management	Recreation Management	Recreation Management
<p>The existing facilities would remain in place continue to be staffed from Memorial Day weekend to September 30. Visitors would be allowed to walk in outside these dates.</p>	<p>Pompeys Pillar would be managed as a day use site. The existing visitor contact station would be staffed from May through October. Outside the season dates visitors would be allowed to walk in.</p>	<p>Pompeys Pillar would be managed as a day use site. A new visitor center would be constructed. It would be staffed from May 1 to October 30. Outside the season dates visitors would be allowed to walk in.</p>	<p>Pompeys Pillar would be staffed and open yearlong with day use and overnight facilities.</p>
<p>Discharge of firearms or weapons would be prohibited west of the Tschida farmstead access road. The remainder of Pompeys Pillar would be managed with no special restrictions and in accordance with State law.</p>	<p>The area near and around developed facilities would be closed to discharge of firearms or weapons. Firearm use in the southwest portion of Pompeys Pillar would be closed from May through October, coinciding with the season the facilities are open and staffed. From November through April, use of firearms would be restricted to shotguns and archery during legal hunting seasons. The remainder of the area would be open to the use of firearms during legal hunting seasons. The use of firearms could be further restricted if needed to protect safety or enjoyment of the site.</p>	<p>Same as B.</p>	<p>The west half of Pompeys Pillar would be closed to discharge of any firearm or weapon. In the east half, firearms would be restricted to use of shotguns and archery during legal hunting seasons. The use of firearms could be further restricted if needed to protect safety or enjoyment of the site.</p>
<p>Vehicle travel would be controlled using fences and locked gates. The current "open" off-road vehicle designation would remain in affect for the island.</p>	<p>Motorized and nonmotorized vehicle travel would be restricted to designated roads and trails.</p>	<p>Same as B.</p>	<p>Same as B.</p>
<p>The Tschida farmstead would remain in place.</p>	<p>The Tschida farmstead would be removed and reclaimed.</p>	<p>Same as B.</p>	<p>Same as B.</p>

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

(Recreation cont)	(Recreation cont)	(Recreation cont)	(Recreation cont)
	The NHL would be managed under a Class II Visual Resource Management objective. The remainder of Pompeys Pillar would be managed under a Class III management objective.	Same as B.	Same as B.
	A visual corridor would be maintained from the interchange to the NHL. Activities within the corridor would be managed so that the NHL dominates the view of visitors as they approach the site.	Same as B.	Same as B.
Existing facilities would remain in place.	Historic Zone All existing facilities, except those necessary for public safety and access, would be relocated to the Historic Zone -Developed.	Historic Zone This zone would be managed primarily for providing visitor access to Clark's signature in a historic setting. The existing visitor contact station and restrooms would remain in place to serve visitors and provide office space.	Historic Zone The NHL would be managed as the Historic Zone. Visitor access in this zone would include access to other rock art and inscription panels and physically disabled access to Clark's signature.
No new trails would be built.	At a minimum, visitor access would be provided through trails to the base of the NHL and the Yellowstone River.	Same as B.	(addressed in Historic Zone - Developed below)
There would be no bank stabilization efforts.	The existing land base would be maintained using bank stabilization along the Yellowstone River.	Same as B.	(addressed in Historic Zone - Developed below)

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

(Recreation cont)	Farming would continue on about 200 acres.	(Recreation cont)	Farming would be excluded and the tilled ground restored to a setting characteristic of 1806. Current farming would be allowed to continue until displaced by restoration of the historic setting.
(Recreation cont)	The existing access road would remain in place.	Same as B.	(addressed in Historic Zone - Developed below)
(Recreation cont)	The existing access road would be closed and reclaimed.	The existing access road would be closed and reclaimed.	(addressed in Historic Zone - Developed below)
(Recreation cont)	Historic Zone - Developed	Historic Zone - Developed	Historic Zone - Developed
(Recreation cont)	New trails would be built to link the visitor contact station, picnic area and trails in the Historic Zone. Existing visitor center, restrooms and picnic area moved to this zone.	New facilities would include a moderate sized visitor center (about half the size of the proposed Lewis and Clark Visitor Center in Great Falls, MT), a highly developed picnic area and a trail system. An interpretive trail would serve a good portion of the area. Facilities would be developed to allow fishing access and take-out of non-motorized boats and boat docking.	New facilities would be similar to B, except the new visitor center would be larger and similar to the Oregon Trail Interpretive Center in Baker City, Oregon, a full service overnight campground would be provided and outdoor exhibits would be developed.
(Recreation cont)	Farming would be excluded and the tilled ground restored to a setting characteristic of 1806. Current farming would be allowed to continue until displaced by facilities or restoration of the historic setting.	Same as B.	The existing visitor contact station, restrooms and parking lot would remain in place and serve as a support facility.
(Recreation cont)	The existing access road would remain in place.	The existing access road along the west boundary would be closed and reclaimed. A new all weather entrance road would be constructed.	Same as B.
(Recreation cont)	A new all weather onranch road would be constructed.	The existing access road would be closed and reclaimed. A new all weather entrance road would be constructed.	Same as B.
(Recreation cont)	The existing access road would remain in place.	The existing access road would be closed and reclaimed. A new all weather entrance road would be constructed.	The existing land base would be maintained using bank stabilization along the Yellowstone River.

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

(Recreation cont)

(Recreation cont)

General Management Zone

Farming would be excluded. Low tillage farming would be used to manage wildlife habitat. Shelterbelt strips of shrubs and trees would be planted or maintained in a manner compatible with maintenance and access to the irrigation system. Shrub and tree plantings would be coordinated with the Huntley Project Irrigation District.

(Recreation cont)

General Management Zone

Farming would continue on about 150 acres. Depending on future development trends and visitor demand, farming on more or less acreage may be used to accomplish management goals. Where necessary, management of recreation, historic sites, and the historic setting could take precedence over agriculture and its associated wildlife habitat in this zone if visitor demand and management resources require such measures. Farming practices would include leaving standing crops to provide forage and cover for wildlife. Shelterbelt strips of shrubs and trees would be planted or maintained in a manner compatible with maintenance and access to the irrigation system. Shrub and tree plantings would be coordinated with the Huntley Project Irrigation District.

(Recreation cont)

General Management Zone

Farming would be limited to about 50 acres. Depending on future development trends and visitor demand, farming on more or less acreage may be used to accomplish management goals. Where necessary, management of recreation, historic sites, and the historic setting could take precedence over agriculture and its associated wildlife habitat in this zone if visitor demand and management resources require such measures.

Facility development would include interpretive trails, fishing access and environmental education. This zone would also provide space, if needed, for maintenance facilities.

Same as B.

A new hiking trail system would be constructed to expand visitor access to the area and to provide additional fishing access. This zone would also provide space, if needed, for maintenance facilities.

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

Fish and Wildlife Habitat

Wildlife habitat management would be accomplished primarily through farming under a Sikes Act agreement to provide about 26 acres of standing crops for forage and cover.

Fish and Wildlife Habitat

In both historic zones priority would be given to native wildlife species characteristic of the 1806 setting and still present on site. In the Wildlife/Recreation Zone the priority wildlife species would be white-tailed deer, pheasants, Merriams wild turkey, and waterfowl. These game species would be considered a priority species because of their recreational value for hunting.

The management objectives would be to maintain natural riparian areas in Proper Functioning Condition, provide forage and cover with plantings and improve fisheries habitat on the channelized stream.

About 66 acres would be intensively managed for wildlife habitat.

Actions would be taken to enhance waterfowl, wetland and fisheries habitat.

The channelized stream would be managed to reduce soil erosion, improve water quality, and improve fisheries or wetland habitat without reducing its functionality as part of the irrigation system.

Waterfowl spring nesting and fall migration resting habitat in the 5-6 acre wetland would be enhanced by flooding the area 2-4 months longer.

Fish and Wildlife Habitat

Fish and wildlife habitat management would be the same as described in Alternative B except that farming would continue in the Wildlife/Recreation/Agricultural Zone, and about 150 acres would be intensively managed for wildlife habitat.

Fish and Wildlife Habitat

Priority wildlife species and habitat management actions would be the same as described in Alternative B except that about 50 acres would be intensively managed for wildlife habitat in the General Management Zone. This would be accomplished using farming similar to the methods currently being used, or through planting crops for wildlife forage and cover, and periodically harvesting or replanting to improve vigor, provide weed control and improve habitat diversity and edge effect for wildlife.

IMPACTS COMPARISON OF ALTERNATIVES

Alternative A - No Action	Alternative B	Alternative C - Preferred	Alternative D
<p>IMPACTS TO CULTURAL RESOURCES</p> <p>Under Alternative A impacts to cultural resources would remain the same as at present. Only the Clark panel would be monitored electronically; occasional relatively minor vandalism could be expected to continue as long as much of the NHL is left unprotected. The risk of a major vandalism incident would also exist, in which the Clark panel or other important panels may be irreparably damaged. A long off season period with walk-in access and intermittent BLM or law enforcement presence would continue to provide opportunity for major vandalism to the signature and rock art panels. Because the existing visitor facilities would remain in their current location BLM staff would remain close to the NHL and would provide some deterrence to would-be vandals.</p> <p>Under this alternative the panels would continue to gradually fade as the sandstone disintegrates, eventually leaving only the Clark panel because of its protective glass covering. Based on the rate of disintegration in the period between the 1960s and today the majority of the unprotected rock art will be gone within one hundred years from now. (Comparisons of photos from near</p>	<p>IMPACTS TO CULTURAL RESOURCES</p> <p>Under Alternative B, a slightly longer open season would allow for an increased period of BLM presence at the NHL and would provide less opportunity for off-season vandalism affecting the rock art. Most of the documented vandalism has so far occurred during the peak visitation periods. These incidents have all been relatively minor. A slightly longer open season may result in an increase in minor incidents of vandalism to the rock faces, but would reduce the risk of major incidents in which the Clark panel or other significant panels are irreparably damaged. Surface collecting of artifacts or other forms of vandalism on other sites on the property would also be discouraged by a longer period of BLM presence. Increased opportunities for protection of the panels on the NHL, through electronic or other means, would significantly reduce the potential for any vandalism.</p> <p>Under this alternative, the historic feeling and setting of the NHL could be enhanced through re-establishing a vegetation community characteristic of 1806. The potential for education of visitors would increase somewhat.</p>	<p>IMPACT TO CULTURAL RESOURCES</p> <p>Under Alternative C a slightly longer open season will allow for an increased period of BLM presence at the NHL and will provide less opportunity for off-season vandalism affecting the rock art. Most of the documented vandalism has so far occurred during the peak visitation periods. These incidents have all been relatively minor. A slightly longer open season may result in an increase in minor incidents of vandalism to the rock faces, but would reduce the risk of major incidents in which the Clark panel or other significant panels are irreparably damaged. Surface collecting of artifacts or other forms of vandalism on other sites on the property would also be discouraged by a longer period of BLM presence. Increased opportunities for protection of the panels on the NHL, through electronic or other means, would significantly reduce the potential for any vandalism.</p> <p>Under this alternative, the historic feeling and setting of the NHL could be enhanced by re-establishing a vegetation community characteristic of 1806. The potential for education of visitors would increase substantially with exhibits and other cultural resource interpretation.</p>	<p>IMPACTS TO CULTURAL RESOURCES</p> <p>A year-round open season would allow for a continuous BLM presence at the NHL. In the past vandalism has typically occurred during the high visitation summer season. The documented incidents have all been relatively minor and for the most part, have not impacted the Clark panel or other highly significant panels. The presence of visitors throughout the year, and overnight may provide more opportunity for minor vandalism to the NHL's rock faces. A continuous BLM presence would substantially reduce the potential for major vandalism to rock art and inscription panels on the NHL. Increased opportunities for protection of the panels on the NHL, through electronic or other means, would significantly reduce the potential for any vandalism.</p> <p>Under Alternative D, the historic feeling and setting of the NHL would be enhanced through re-establishing a vegetation community characteristic of 1806. This alternative would provide for a significant public education program in cultural resources.</p>

IMPACTS COMPARISON OF ALTERNATIVES

the turn of the century with those taken in the 1960s, versus the situation today indicate that the rate of disintegration of the sandstone surfaces has accelerated in the past 30 years.)

There would be no opportunities to enhance the setting and feeling of the NHL by restoring the surrounding land to a vegetation community characteristic of 1806. The view from the top would continue to be disrupted by vehicles entering and leaving.

Public education opportunities would remain the same as at present.

IMPACTS TO RECREATION

Under Alternative A, current facilities would continue to be inadequate. Space would not be available for the additional interpretive displays needed to assist visitors in realizing the historical significance of the Pompeys Pillar. The lack of space would also deprive most visitors the opportunity to view the art and books. Working conditions would continue to be poor for employees and volunteers from the lack of office space. The existing restroom facilities would continue to be inadequate to meet the personal needs of visitors. These conditions would likely degrade the visitors overall experience at Pompeys Pillar. Existing facilities would not be adequate to service the increasing

IMPACTS TO RECREATION

Under this alternative the scope and size of the existing facilities would remain about the same as the current facilities except that restroom facilities would be improved to meet personal needs of visitors. This would improve the visitors overall experience at Pompeys Pillar. Impacts from limited space for interpretive displays, art books and office space would be the same as for Alternative A.

This alternative would provide the greatest opportunity to enhance the historical setting related to Clark's visit in 1806. It provides the largest area near the NHL for restoration to an 1806 setting.

Generally, the new trails would

IMPACTS TO RECREATION

Under this alternative a larger visitor center would be built. Space would be provided for additional interpretive displays. The art and books would be displayed on site. This would better serve visitor needs for additional interpretive information and personal conveniences. Employees and volunteers would be better served by providing more office space. Visitors would be provided an opportunity to stay 2 - 3 hours.

This alternative would provide a smaller historic setting than Alternative B and relies more on interpretive displays to enhance the experience.

Impacts from providing new trails would be the same as Alternative B

IMPACTS TO RECREATION

Under this alternative, Pompeys Pillar would become a major recreation destination with strong ties to Yellowstone Park and the Big Horn National Parks sites. This alternative would provide the largest visitor center and the greatest opportunity to enhance the visitors experience with interpretive displays. Visitors would be able to stay several days and participate in the greatest variety of outdoor and indoor activities.

This alternative would provide the least enhancement to the historic setting. The historic zone would be confined to the NHL. Visitors would rely on interpretive displays, brochures and viewing the signature to experience Clark's visit.

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

Animal Damage Control	Animal Damage Control	Animal Damage Control	Animal Damage Control
<p>Activities would only occur to reduce human safety threats or protect investments at the site.</p>	<p>Animal damage control activities would be carried out only when control would be necessary to manage priority wildlife species and their habitat, to reduce potential threats to human safety or to target problem animals that have been identified on site.</p>	<p>Same as B.</p>	<p>Same as B.</p>
<p>Fire Management</p>	<p>Fire Management</p>	<p>Fire Management</p>	<p>Fire Management</p>
<p>Suppression would continue to be at the discretion of the Resource Advisor.</p>	<p>Pompeys Pillar would be divided into two fire suppression areas where initial attack would be managed differently: 1) Intensive and 2) Conditional Intensive.</p>	<p>Same as B.</p>	<p>Same as B.</p>
<p>Lands and Realty</p>	<p>Lands and Realty</p>	<p>Lands and Realty</p>	<p>Lands and Realty</p>
<p>The existing land base would be maintained at 473 acres.</p>	<p>All lands would be retained in public ownership except the three acre parcel south of I-94 would be available for disposal subject to an easement for retaining the billboard on site.</p>	<p>Same as B.</p>	<p>Same as B.</p>
<p>Any future proposals for leases and rights-of-way would be managed per regulations and handled on a case-by-case basis.</p>	<p>Adjacent private lands could be acquired where acquisition is consistent with the land use planning objectives for Pompeys Pillar and land owners are willing. Acquisition could be purchase in fee title, scenic or conservation easement or some</p>		

SUMMARY COMPARISON OF ALTERNATIVES (CONT)

other agreement to preserve the rural characteristics of adjacent lands.

Future rights-of-way would be excluded from the Historic Zone, except those necessary to service the site facilities. There would be a 500-foot utility corridor paralleling the southern boundary of Pompeys Pillar. Future lines placed in this corridor west of the interchange would be buried. Consider burying existing above ground utilities if modified if modified in the future.

Minerals

No actions would be taken to secure the mineral estate.

Minerals

For minerals that are privately owned, BLM would work with willing owners to secure title to the mineral estate through exchange or purchase.

For minerals that are federally owned, the following would apply:

For oil and gas activities, a No Surface Occupancy stipulation would apply to the entire site. Pompeys Pillar would be closed to mineral material sales.

Minerals

Same as B.

Minerals

Same as B.

IMPACTS COMPARISON OF ALTERNATIVES

demand for environmental education programs for local schools.

Enhancing visitors experience through creating a historic setting would be precluded. All facilities would remain in their current location and farming would continue near the NHL. This would preclude opportunities to enhance visitors experience through restoring part of the site the an 1806 setting.

No new trails would be constructed. Most of Pompeys Pillar would continue to be inaccessible to people with disabilities.

The presence of existing facilities near the NHL would slightly impair the visitors experience. BLM staff would be close to the NHL, increasing staff availability for visitors, reducing the potential for vandalism and providing a faster response time for medical emergencies.

Vehicle travel would continue to be controlled by locked gates. This could make it difficult to prevent some visitors from driving around.

Activities on adjacent private lands would have the potential to interfere with visitor experiences if the converted from agriculture to commercial or residential properties.

Keeping the area west of the Tschida Farmstead road closed to shooting would preclude hunting opportunities

improve access throughout the site for all visitors, including people with disabilities. The trails would enhance or provide new opportunities such as sightseeing, wildlife viewing, fishing, and hunting. However, moving the visitor center and parking lot would increase the distance that people with disabilities have to walk to reach the base of the NHL.

Relocating the existing facilities away from the NHL would enhance the historic setting. Sights and sounds from activities at the visitor center and parking lot would be diminished. However, having the visitor center further away would reduce BLM's presence near the NHL. This could have an adverse affect on the visitors experience by resulting in less staff contact with visitors, increased potential for vandalism and a slower response time to medical emergencies.

Maintaining a visual corridor between the interchange and the NHL would provide an unobstructed view of the NHL for visitors approaching from Interstate 94. For some visitors, this would enhance their initial experience.

Limiting vehicle travel to designated roads and trails would prevent damage to soils, vegetation and cultivated areas. Impacts to visitors would be no different that under current management. Currently there is no off-road driving because gates are kept locked.

except that the existing parking lot would be used for disabled parking, allowing people with disabilities closer access to the base of the NHL. Access for boaters would improve through the addition of docking facilities.

Farming in the visual corridor would detract from the historic setting for some visitors.

The presence of the existing visitor center near the NHL would be somewhat distracting to visitors. However, relocating the access road and parking lot would remove most of the traffic and diminish these impacts. Having a facility close to NHL would provide a greater BLM presence. This would increase staff availability for visitors, reduce the potential for vandalism and provide a faster response time for medical emergencies.

Impacts from limiting vehicle travel would be the same as Alternative B.

Impacts from adjacent private lands would be the same as Alternative B.

Impacts to hunting would be the same as Alternative B.

Impacts to fishing opportunities would be the same as Alternative B.

This alternative would provide the best blend of opportunities to develop local community and the corporate partnerships. It would recognize the adjacent agriculture

This alternative would provide the greatest enhancement to access for people with disabilities. In addition to new trails throughout the site, the new facility would provide access to wide array of indoor and outdoor activities and access to Clark's signature. People with disabilities would not have to rely on a replica to view the signature.

Impacts from maintaining a visual corridor between the interchange and the NHL would be the same as Alternative B.

The presence of the existing visitor center near the NHL would be the same as Alternative C.

Impacts from limiting vehicle travel would be the same as Alternative B.

Impacts from adjacent private lands would be the same as Alternative B.

Opportunities to the general hunting public would be most limited under this alternative. The largest acreage would be closed to shooting. Deer and bird hunting opportunities would be lost on about 270 acres. The remaining 200 acres would be restricted to shotguns and archery. This would displace all deer hunters using rifles. Upland game bird hunting opportunities would continue to be available, but over a smaller area than provided for in the other alternatives. Hunting opportunities would improve for people with disabilities because of additional

IMPACTS COMPARISON OF ALTERNATIVES

on about 130 acres. However, shooting would be allowed on about 340 acres, somewhat offsetting the loss on the 130 acres. The shooting closure would maintain a margin of safety for visitors in and around the NHL and visitor contact station. Opportunities exist for encounters between hunting and non-hunting visitors. However, these encounters would be minimal as most visitation occurs outside the hunting seasons.

Fishing opportunities would continue to be minimal.

This alternative would offer few opportunities for corporate partnerships. Farming would continue. Support would likely decrease from people who would like to see additional development. The loss of support would likely reduce BLM's capability to provide a recreational experience to visitors.

If adjacent private lands were converted from an agricultural setting to a commercial or residential development, the activities and sights from the development have the potential to adversely affect the setting at Pompeys Pillar. Purchasing or acquiring easements from willing owners of adjacent private lands could avoid these impacts.

The area closed to shooting would preclude hunting opportunities on 200 acres. It is anticipated there would be a small loss in game harvest. Allowing shotguns and archery in the southwest portion of the area from 11/1 to 4/30 would not be expected to affect visitor safety. Hunters would probably not realize any greater hunting success. Hunting opportunities for people with disabilities would improve with the addition of trails.

Fishing opportunities would improve due to efforts to improve habitat in the channelized stream. Catches would likely improve as well as the variety of fish.

This alternative would offer little opportunity for corporate sponsorship. Eliminating farming would likely eliminate some local support for BLM's presence in the agricultural community, reducing the potential for local partnerships.

setting, while providing visitors an opportunity to experience the historical significance of the site.

trails.

Impacts to fishing opportunities would be the same as Alternative B.

This alternative would provide the best opportunity for large corporate partnerships, but would likely decrease local support because of the impacts to the local setting and way of life.

IMPACTS COMPARISON OF ALTERNATIVES

ECONOMIC IMPACTS

Recreation

Under continuation of current management, visitation at Pompeys Pillar is expected to increase annually into the foreseeable future. In addition, bicentennial activities to celebrate the 200th anniversary of the Lewis and Clark Expedition will be held in 2003 all along the Lewis and Clark Trail and this will likely cause a significant increase in visitation which would then decline somewhat and level off in the following few years.

Given current trends in recreation in Montana, at Pompeys Pillar, and for historic resources and wildlife viewing in particular, it is estimated that visitation under Alternative A could reach 75,000 visitors annually. Assuming visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$707,000 and 34 jobs annually to the Montana economy.

This economic impact does not include increased expenditures associated with operations and maintenance of the site, about \$150,000 annually. This is about the current level of expenditure so there would be no additional impact.

Environmental education programs will probably increase as well, due primarily to two factors: local school

ECONOMIC IMPACTS

Recreation

With the level of development envisioned under Alternative B and a two-month longer season, visitation is expected to be a little higher than under Alternative A. Given current recreation trends, the longer season, and modest level of development, it is estimated that visitation under Alternative B could reach 85,000 visitors annually. Assuming visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$800,000 and 39 jobs annually to the Montana economy.

This economic impact does not include increased employment and expenditures associated with construction, operation, and maintenance of new and existing facilities. The economic contribution of construction, estimated to cost \$650,000, would be short term and temporary. Annual operating costs, estimated to be \$250,000, would result in long-term spending patterns similar to those for tourism expenditures, although the impact from additional operating costs would not be much greater than under current management (Alternative A). Finally, in addition to these one-time construction costs and annual operating expenditures, there would be a short-term annual costs for reseeding and contouring the

ECONOMIC IMPACTS

Recreation

Under Alternative C, the current facilities would remain and there would be a modest level of new development to expand the visitor's center. The site would be open two months longer than under Alternative A. New construction costs would total about \$3 million, with annual operating costs of \$300,000, about double the current cost of operation.

Given current recreation trends, the longer season, and level of development, it is estimated that visitation under Alternative C could reach as high as 250,000 visitors annually. Assuming visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$3.2 million and 114 jobs annually to the Montana economy.

This economic impact does not include increased employment and expenditures associated with construction, operation, and maintenance of new and existing facilities. The economic contribution of construction, estimated to cost \$3 million, would be short term and temporary. Annual operating costs, estimated to be \$300,000, would result in long-term spending patterns similar to those for tourism expenditures although the impact

ECONOMIC IMPACTS

Recreation

Under Alternative D, BLM would construct and operate a major visitor center which would remain open year-long. Facilities for overnight camping would also be available. New construction costs are estimated to total \$20 million and annual operating expenditures are estimated to be \$2 million. With this level of development, current recreation trends, and year-round visitation opportunities, it is estimated that visitation could reach as high as 500,000 visitors annually. This is significantly higher than all other alternatives.

This level of development is comparable to development of the BLM's Oregon Trail Interpretive Center in Baker City, Oregon. That facility cost approximately \$10 million. The Oregon Trail Center, which is situated on the Oregon Trail just off of I-84, was envisioned to ultimately attract 200,000 visitors per year. In its first year of operation, 1992, the center attracted 200,000 visitors within the first seven months. Visitation peaked at 347,000 in 1993 and has since fallen to the 175,000 - 200,000 range. The pattern of visitation is attributed to the significant amount of national and regional marketing efforts that were focused on the Oregon Trail in the early days of operation to commemorate the Oregon Trail. The

IMPACTS COMPARISON OF ALTERNATIVES

enrollment is growing along with the general population, and interest in the Lewis and Clark Expedition will also grow as the bicentennial approaches.

previously farmed areas. These costs would range from \$10,000 - \$30,000 a year for about five years.

The quality of recreation experiences associated with the historic setting and wildlife viewing would improve at the site. Elimination of farming over the next five years would increase the diversity of wildlife species. An increase in wildlife diversity would in turn increase opportunities for wildlife viewing. Hunting opportunities would be reduced due to the extended season of general recreation use (through October) and the loss of wildlife species associated with agriculture. The historic setting around the NHL itself would improve due to the phase-out of farming.

would be lower.

With increased site development, the potential exists to extend the amount of time visitors spend at the site. For non-resident tourists traveling through the state this could mean an additional night's stay in Montana; this would increase the economic impact potentially contributed by recreation development at Pompeys Pillar.

The quality of all types of recreation experiences would be greater than under current management. The 50 acres of farmland restored to native habitat would diversify the wildlife habitat and benefit nongame wildlife species. The loss of farmland would decrease upland game bird habitat (eg. pheasant). An increase in wildlife habitat diversity would also increase opportunities for wildlife viewing. A decrease in upland game bird habitat would be a negative impact to some hunting opportunities. The extended season of general recreation use (through October) and shooting restrictions placed in the Historic Zone/Developed area would also negatively impact hunting opportunities. The historic setting around the NHL would improve due to the farming acreage reduction although it would not be as great as under Alternative B.

current level of visitation is expected to continue and to rise gradually (Dave Hunsaker, Park Manager Oregon Trail Interpretive Center, personal communication 12/95).

Adding an interpretive center at Pompeys Pillar would likely create a similar pattern of visitation in the early years of operation. Visitation may peak around 500,000, due to the likelihood that construction would be completed within the next few years and that Lewis and Clark Expedition bicentennial activities will be at its highest. After the first few years, visitation would likely decline and level off.

Assuming annual visitation of 500,000 and that visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$6.5 million and 229 jobs throughout the state's economy. With this level of development, as for Alternative C, the potential exists to extend the amount of time visitors spend at the site. For non-resident tourists traveling through the state this could mean an additional night's stay in Montana, especially with the addition of overnight camping facilities; this would increase the economic impact potentially contributed by recreation development at Pompeys Pillar.

With the addition of a major destination visitors center, the emphasis would be on a developed

IMPACTS COMPARISON OF ALTERNATIVES

recreation setting with historic interpretation offered by the visitor's center and Clark's signature. Wildlife viewing opportunities would increase, but hunting opportunities would decline. The impact to deer and waterfowl hunters would be relatively minor since other hunting opportunities are available nearby. The impact to upland game bird hunters would be relatively greater due to the decline in agricultural land which reduces the opportunities for upland game bird hunting close to Billings.

Neighboring landowners would experience some negative impacts from increased traffic flow to the site especially since the facility would be open year-round. However, opportunities would exist for commercial development of adjacent or nearby private lands to capture additional business from Pompeys Pillar visitors and this would be an offsetting benefit for some landowners.

Agriculture

About 200 acres would remain available for farming, so there would be no impact to the farming operation.

Agriculture

Farming would be phased-out over the next 3 - 5 years. The only farming allowed to occur in the future would be less intensive, low-tillage farming on up to 66 acres. This type and timing of farming would likely only offer supplemental farm income opportunities since its availability would be only occasional and short-term.

Agriculture

About 150 acres total would be available for farming under this alternative. Assuming 12 percent of this would be used for standing crops (about 17 acres), a total of 133 acres would be available for harvest. It is estimated that total value of production of crops grown on 133 acres would be about \$35,300, assuming that crops are grown in the same acreage proportions as under

Agriculture

About 50 acres total would be available for farming under this alternative, one quarter the level that is currently available. Assuming 12 percent of this would be used for standing crops, only 44 acres would be available for harvest. It is estimated that total value of production of crops grown on 44 acres would be about \$11,800, assuming that crops are grown in the

IMPACTS COMPARISON OF ALTERNATIVES

The current lessee farms about 1,500 acres, 200 acres of which are at Pompeys Pillar. Eliminating farming at the site would reduce the farmer's productive acreage by about 13 percent. A three to five year phase-out would give the farmer time to adjust his operation and find additional acreage if necessary. The actual impact to the farmer would depend on his ability and need to find additional acreage.

current conditions (see Table 2). Note that these estimates do not include cost of production.

Although the acreage reduction represents about 25 percent of the total acres farmed at the site, it is about 3 percent of the current farmer's total operation. The actual loss to the farmer would depend on the mix of crops grown, ability to lower production costs, and whether other acreage would be obtained to compensate for acreage reduction at the site.

Increased recreation visitation due to the construction of a visitor's center has the potential to increase crop damage from unauthorized use in farming areas. With well-maintained physical barriers (eg. fences and gates) and proper signing these problems would be alleviated.

same acreage proportions as under current conditions (see Table 3). Note that these estimates do not include cost of production.

This is substantially less acreage than currently available at the site. The decline in acreage available (about 150 acres less) represents 10 percent of the current farmer's entire operation. The actual loss to the current farmer would depend on the mix of crops grown, ability to lower production costs, and whether other acreage can be obtained to compensate for acreage reduction at the site.

Increased visitation may increase some problems the current farmer has experienced with vehicles. With well-maintained physical barriers (eg. fences and gates) and proper signing indicating that visitors do not have access to farming areas, these problems should be alleviated.

IMPACTS TO WILDLIFE

There would be no effect on wildlife habitat from the existing situation. The Sikes Act Agreement would remain in effect. Standing crops currently used for wildlife habitat and forage such as corn, sorghum, and cereal grains (wheat, barley, and oats) would continue to be used. The existing standing crop acreage would remain about the same annually with about 12 percent or 23 acres of the total farm acreage in standing crops. Game species such as pheasants,

IMPACTS TO WILDLIFE

Under this alternative, about 134 acres in the historic zones would be restored from farmland to native shortgrass prairie. This type of habitat would provide yearlong cover. However, the cover would be less dense and provide less forage and shorter, less dense escape cover for wildlife. This type of habitat generally favors nongame wildlife species. Wildlife species preferring the shortgrass prairie type habitat would increase. Wildlife preferring cereal

IMPACTS TO WILDLIFE

In the historic zones, nongame wildlife species would likely increase on the 50 acres that would be converted from farmland to native shortgrass prairie. Wildlife species that previously used this area and prefer an agricultural setting would relocate to adjacent habitat. This would likely result in a small loss, but would not affect the population in the general area.

In the General Management Zone

IMPACTS TO WILDLIFE

Impacts to wildlife would be about the same as Alternative B except that more acreage would be used for facility development and increases in nongame wildlife species would be less.

Species preferring shortgrass prairie habitat would benefit, while wildlife preferring cereal grain forage and heavy dense cover would decline or be displaced.

IMPACTS COMPARISON OF ALTERNATIVES

waterfowl and white-tailed deer would continue to benefit from standing crop forage and cover.

Fisheries habitat would continue to be marginal in the channelized stream.

grain forage and heavy, dense cover, such as pheasants, would decline or be displaced.

The 66-acre area managed intensively for wildlife habitat would be planted with vegetation similar to the Conservation Reserve Program (CRP) providing yearlong cover for wildlife. This habitat would also increase wildlife species diversity by attracting wildlife species, such as white-tailed deer and pheasants, that prefer heavy, dense cover. It would also provide additional waterfowl nesting habitat.

Wildlife habitat lost from facility development, and the presence of visitors along trails and near the visitor center and picnic area, would result in some wildlife species having to relocate to adjacent habitat. This would likely cause some loss in numbers of wildlife from overcrowding of the adjacent habitat. However, the loss would be minimal and would not likely adversely affect the overall populations in the general area.

Stabilizing the bank along the Yellowstone River would result in a loss of fisheries habitat where the bank has a natural undercut with overhanging vegetation. However, this type of habitat is very minimal and the loss would not affect the overall fisheries population in the general area.

The variety and numbers of fish in

farming would continue on about 150 acres. There would be a loss of 6-10 acres of standing crops (compared with Alternative A). This would likely result in a minimal displacement of wildlife species, such as white-tailed deer and pheasants, that favor this type of habitat.

Impacts to wildlife from increased visitation from facilities and trails would be the same as Alternative B.

The impacts of bank stabilization along the Yellowstone River would be the same as under Alternative B.

Impacts from fisheries habitat improvements would be the same as under Alternative B.

Impacts from wetland habitat improvements would be the same as under Alternative B.

Pasture dedicated to the display of native ungulates such as bison and elk would reduce habitat for animal species preferring heavy and dense cover. Forage for these animals would also decline substantially.

Displacement of wildlife from facility development and the presence of visitors would be the greatest under this alternative. Wildlife species sensitive to human presence would relocate to adjacent habitats. This would likely result in some loss of individual animals, but would not adversely affect the populations as a whole in the region.

The impacts of bank stabilization along the Yellowstone River would be the same as under Alternative B.

Impacts to wildlife from increased visitation at facilities and trails would be the same as Alternative B.

The impacts of bank stabilization along the Yellowstone River would be the same as under Alternative B.

Impacts from fisheries habitat improvements would be the same as under Alternative B.

Impacts from wetland habitat improvements would be the same as under Alternative B.

IMPACTS COMPARISON OF ALTERNATIVES

the channelized stream would be expected to increase from habitat improvements.

The flooding period of wetland habitats would be lengthened both in the Spring and Fall. This would provide additional brood rearing habitat and result in a local increase in numbers of waterfowl and shorebirds. Lengthening the flooding period in the fall would benefit migrating waterfowl by providing additional fall migration resting habitat in the area.

IMPACTS TO LANDS AND REALTY

Current agricultural uses on adjacent private lands would have no adverse impacts to the historic setting at Pompeys Pillar. If commercial or residential development were to occur on the private lands to the west and north, the sights and sounds would disrupt the historic setting. The potential for these impacts could be precluded through purchase, conservation easements or other agreements with willing adjacent land owners.

IMPACTS TO MINERAL DEVELOPMENT

There is currently no indication of any minerals that could be economically developed.

IMPACTS TO LANDS AND REALTY

Confining all future utility lines to the existing corridor along Highway 312 would not likely cause any adverse impacts. Currently there are no proposals for new lines.

IMPACTS TO LANDS AND REALTY

Impacts would be the as for Alternative B.

IMPACTS TO LANDS AND REALTY

Same as Alternative B.

IMPACTS TO MINERAL DEVELOPMENT

BLM will complete a title search to confirm ownership. If the mineral estate is under private ownership, BLM would have no control over any exploration or development activities. Under this scenario, if BLM secures title to the minerals, the restrictions

IMPACTS TO MINERAL DEVELOPMENT

Impacts would be the as for Alternative B.

IMPACTS TO MINERAL DEVELOPMENT

Same as Alternative B.

IMPACTS COMPARISON OF ALTERNATIVES

proposed for federal mineral would not likely preclude any development.

IMPACTS TO VISUAL RESOURCES

The sight and sound of vehicles entering and leaving would detract from the setting. For some visitors approaching from the interchange, farming near the NHL would be noticeable and detract from their view of the NHL.

IMPACTS TO VISUAL RESOURCES

Adding new trails has the potential to create a visual intrusion. However, the impacts could be minimized to an acceptable level through proper construction techniques and the use of non-reflective materials of colors that blend with the adjacent landscape.

Sights and sounds from activities associated with relocating the facilities would disrupt the visual harmony of the site. The exposure of subsoils during digging and trenching would create visible color contrasts. However, these impacts would be short term. Impacts to visitors could be further reduced by conducting these activities in the off season.

Confining future rights-of-way to a corridor along Highway 312 and requiring burial would help maintain a more natural setting.

IMPACTS TO SOIL, AIR AND WATER QUALITY

All construction activities would be designed to prevent adverse impacts to air, soil and water. Short term increases in dust from construction would likely occur. There would be a temporary increase in accelerated erosion from construction activities.

IMPACTS TO VISUAL RESOURCES

Impacts would be the same as for Alternative B.

IMPACTS TO VISUAL RESOURCES

Same as Alternative B.

IMPACTS TO SOIL, AIR AND WATER QUALITY

Impacts would be the same as B.

IMPACTS TO SOIL, AIR AND WATER QUALITY

Impacts would be the same as B.

IMPACTS COMPARISON OF ALTERNATIVES

IMPACTS TO PRIME FARMLAND

Under this alternative there would be no impacts to prime farmland. The 100 acres of prime farmland currently under cultivation would continue to be farmed. The 110 acres of prime farmland not under cultivation would not be farmed. However, these acres have never been farmed because they are in the primary floodplain of the Yellowstone River.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, facilities and trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an ir retrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of facilities and trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

IMPACTS TO PRIME FARMLAND

Under this alternative there would be no farming. About 100 acres of prime farmland would be converted to shortgrass prairie vegetation. The effects of removing this small acreage from production would be insignificant compared with the acreage currently under cultivation in Yellowstone Valley or the region.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an ir retrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

IMPACTS TO PRIME FARMLAND

Under this alternative about 50 acres of prime farmland would be converted to shortgrass prairie vegetation. Although the acreage of prime farmland taken out of production would be smaller than under Alternative B, the impacts would be similar. This small acreage would be insignificant compared with the acreage of prime farmland currently under cultivation in Yellowstone Valley or the region.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, facilities and trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an ir retrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of facilities and trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

IMPACTS TO PRIME FARMLAND

Impacts would be the same as under Alternative B.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, facilities and trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an ir retrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of facilities and trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

IMPACTS COMPARISON OF ALTERNATIVES

CONCLUSION

There would be no significant cumulative impacts under Alternative A. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would continue to marginally meet the needs of visitors but would not prevent them from viewing Clark's signature. There would be no impacts to agriculture.

CONCLUSION

There would be no significant cumulative impacts under Alternative B. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would continue to marginally meet the needs of some visitors but would not prevent them from viewing Clark's signature. The loss of farmland would not be sufficient to significantly affect agriculture in the region.

CONCLUSION

There would be no significant cumulative impacts under Alternative C. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would meet the needs of visitors. The farmland displaced by facilities, trails and the historic setting would not be sufficient to significantly affect agriculture in the region.

CONCLUSION

There would be no significant cumulative impacts under Alternative D. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would meet the needs of visitors. The farmland displaced by facilities, trails and the historic setting would not be sufficient to significantly affect agriculture in the region.

Chapter 3 - Affected Environment

Location

Pompeys Pillar is located on the south bank of the Yellowstone River and on the north side of I-94, 28 miles east of Billings, Montana (see Map 1 for general location). Billings is the nearest major tourist service center and serves as a gateway to the Bighorn Canyon National Recreation Area, Crow Indian Reservation, Little Bighorn National Battlefield, Beartooth Mountains and Yellowstone National Park.

Land Ownership

The surface acreage for Pompeys Pillar is 473 acres. This includes the 366 acres acquired in 1991 and the adjacent 107-acre island under BLM administration.

Adjacent Lands and Uses

The private lands that adjoin the western and eastern boundaries of Pompeys Pillar are agricultural and are currently being farmed. The private lands directly across the river to the north are also agricultural and are used for livestock grazing.

Legal access to Pompeys Pillar is from Highway 312 and the Yellowstone River. A railroad crossing east of the interchange on Highway 312 provides access, but crosses railroad property at

a private crossing.

A small parcel of private land (12-14 acres) is situated between Pompeys Pillar and the Yellowstone River. The land is currently undeveloped.

Livestock Grazing

Prior to acquisition, the 366-acre parcel was grazed by domestic livestock typical of adjacent local farms where livestock are used to remove aftermath. Since the acquisition, livestock grazing has not been authorized. The 107-acre island is an unleased tract of public land and has no established grazing preference.

Rights-of-Way and Easements

A right-of-way for Highway 312 occurs along the southern boundary of the property. Easements for a gas pipeline and electric transmission lines are also within this highway corridor. There is also an easement for several irrigation ditches.

Climate

Summers are warm with temperatures sometimes exceeding 100 degrees. Winters are cold with temperatures sometimes dropping to 40 degrees below zero. Annual precipitation average 10-14 inches with winter snows and summer rain. Hail, severe thunder storms and blizzards occur.

Geology

Pompeys Pillar is an isolated block of light yellow sandstone on the south

bank of the Yellowstone River. The Pillar rises abruptly more than 100 feet above the surrounding level plain. It is composed of thick, nearly flat-lying beds of fine-grained sandstone separated by narrow bands of carbonaceous shale. The materials forming the Pillar (as well as the rugged cliffs on the north side of the river, opposite the Pillar) probably correspond to the Hell Creek formation. Hell Creek sediments were laid down as beach and near-shore deposits, including low plains, broad, swampy river bottoms, and river deltas along the margins of an inland sea that covered eastern Montana, North Dakota, and Saskatchewan more than 65 million years ago, during the upper Cretaceous period. The thick sandstone beds forming the Pillar were deposited as stream sediments, while the interbedded shales are the fossil remnants of floodplain deposits.

The western part of the continent rose over the next several million years and sediments washing from the rising Rocky Mountains gradually covered eastern Montana, including the middle Yellowstone Valley. Finally, beginning around 2.5 million years ago, during the Pleistocene Epoch, or the time of the ice ages, wetter climates and glacial meltwater established the Yellowstone and the other large streams that flow across Montana today. Downcutting formed the rimrock-lined middle Yellowstone Valley. At some point after the valley had been cut to nearly its present form, the Pillar existed as a point on the inside of an oxbow meander on the north side of the Yellowstone River. The river eventually

cut across the meander and left the Pillar as it is seen today, an isolated butte on the south side of the river.

The sandstone rocks forming the Pillar are quite unstable. Photographs taken over the past 120 years show that large slabs of rock have toppled from the sides of the Pillar. Large rocks up to 18 inches in diameter have rolled onto the access road from the Pillar as recently as the summer of 1993.

Soils and Topography

Soils are typical alluvium of the Yellowstone Valley floodplain. Clays, silts, clay loams, and silty clay loams dominate in the irregular patterns typical of an alluvial bottom. The productivity classes range from I to IV with approximately one fourth of the 220.84 acres being in class IV. The soils in Class IV in this area are not as productive as other types of alluvial soils found in the Yellowstone River Valley. Crops in this area typically are sugar beets, corn, alfalfa hay, and cereal grains such as barley, wheat, and oats.

The site is flat except for the Pillar. During high water, primarily in the spring, a portion of the site is an island. Later in the year as the water level subsides, the channel dries up.

Paleontology

As noted above, Pompeys Pillar is composed of materials laid down as marine and terrestrial deposits during the upper Cretaceous period. The Cretaceous period was the Age of

Dinosaurs. Upper (or late) Cretaceous Hell Creek deposits have yielded a fossil record that is noted worldwide. The record indicates a tropical to subtropical climate, and it includes a wide variety of fossil plants, particularly in what would have been the more moist, lower lying areas. Also abundant in Hell Creek deposits are examples of mollusks, fish, amphibians, reptiles, dinosaurs (including *Triceratops*, *Anatosaurus*, and *Tyrannosaurus rex*), birds, and small mammals.

Although no animal or plant fossils have yet been documented on or within the deposits making up Pompeys Pillar, significant fossils have been found in similar sandstone beds nearby. On July 25, 1806, after scaling the Pillar and carving his name, William Clark and party continued down the Yellowstone. As the group paused to hunt bighorn sheep Clark recorded the following in his journal:

"dureing the time the men were getting the two big horns which I had killed to the river I employed my self in getting pieces of the rib of a fish which was Semented within the face of the rock this rib is about 3 inches in Secumpherance about the middle it is 3 feet in length tho a part of the end appears to have been broken off ... the part which I could not get out may be seen, it is about 6 or 7 Miles below Pompys Tower in the face the Lard. Clift about 20 feet above the water."

History

Pompeys Pillar is well within territory historically acknowledged as the homeland of the *Apsaalooke*, or Crow people. The Pillar's name in the Crow

language, *lishbiiammaache*, is variously translated as "Where the Mountain Lion Lies", "The Mountain Lion's Lodge", or "Where the Mountain Lion Preys". The Pillar figures in Crow oral history as the scene of historical drama. An episode is related in which Crow warriors leaped to their death after challenging a disease then ravaging the Crow camps.

The strategic setting of Pompeys Pillar at an important ford of the Yellowstone, and its remarkable appearance virtually guaranteed its place as a landmark for the native people of the Northern Plains through the region's more than eleven thousand years of occupation. The Pillar was used for centuries as a favored campsite by Crows and other groups as they traveled through the area on hunting, trading, war, or other expeditions. Ethnographic and archaeological evidence suggest that the Pillar was also a place of ritual and religious activity. The presence of aboriginal rock art is an indicator of ritual behavior. The placement of prehistoric rock art in the Northern Plains is not random, although the exact reasons for the concentrations we find are also not obvious to researchers today. It is clear however, that the places where rock art occurs were places of importance to the ancient artists.

Sweat lodges were certainly built in the vicinity during the nineteenth century, according to ethnographic accounts, and burials may have been placed at the Pillar as well. Given the disruption of Crow and other native cultures in historic times, and the reluctance of traditional religious practitioners to talk

openly about religious themes, the true significance of the NHL landform to historical Crow people will probably never be fully known by non-Crow people.

The earliest Euro-American explorers to visit Pompeys Pillar are unknown. A French-Canadian trader named Menard passed through this portion of the Yellowstone Valley in the last decade of the eighteenth century, while with the Crow and Hidatsa war expedition that captured Sacajawea and other Shoshone children from the Rocky Mountains. The first written record of a Euro-American passing this spot belongs to Francois Antoine Larocque, a French-Canadian trader to the Hidatsa who visited the middle Yellowstone Valley with a band of Crows in September, 1805. French and English traders and explorers were in the northern Plains region at least a century before this and may have been familiar with "Where the Mountain Lion Lies" as an important landmark.

The Northwest Corps of Discovery commanded by Captains Meriwether Lewis and William Clark was the first United States military expedition to explore the upper Missouri River basin. Leaving St. Louis in May of 1804 this small band, guided throughout their journey by Native Americans and Euro-American trappers, ascended the Missouri River to its source in the mountainous country of western Montana. Crossing the Rocky Mountains the expedition reached the Pacific coast in November of 1805.

On the return journey the travelers split

into two groups in western Montana. The group under Captain Lewis' command descended the Missouri, exploring the northern limits of the watershed. The group under Captain Clark made their way down the Yellowstone River, pausing briefly at Pompeys Pillar on the rainy Friday afternoon of July 25, 1806. Captain Clark climbed the northeast slope of the sandstone bluff, stopping to carve his name and the date near "the figures of animals &c." engraved previously "on the face of the rock" by "the natives". Continuing to the top, Clark recorded his observations of the "delightfull prospect of the extensive country around, and the emence herds of Buffalow, Elk and wolves in which it abounded". Clark named the bluff "Pompy's Tower" in honor of Jean Baptiste Charbonneau, son of Sacajawea and the guide Toissant Charbonneau. "Pompy", or "little Pomp" was Clark's pet name for the child, and is taken from the Shoshone word for "chief". A literary pun led to the 1814 publication of the official journals of the Corps of Discovery with the name "Pompys Tower" transformed into "Pompeys Pillar". Clark and party continued down the Yellowstone, making camp the evening of July 25, 1806 a few miles downstream. The two groups were reunited just below the confluence of the Yellowstone and Missouri Rivers, and arrived back in St. Louis in September, 1806.

Through the rest of the nineteenth century increasing numbers of Euro-American travelers came to know Pompeys Pillar. During the first several decades of the century fur trappers

operated in the Yellowstone Valley for Canadian and then American companies. A late nineteenth century journal entry notes that at least two, "Derrick" and "Vancourt", left their names and the date 1834 inscribed on the NHL.

During the nineteenth century increasing numbers of Euro-Americans passed through the Yellowstone Valley. The famous Jesuit missionary Father Pierre-Jean DeSmet was in the area in the 1840s. Some evidence, including an enigmatic relief carving on the NHL, suggests that Father DeSmet may have preached to the Crow Nation at Pompeys Pillar in August of 1842. With the discovery of gold in western Montana in mid-century the first large-scale intrusion into the Yellowstone Valley by non-Native Americans was underway. Increasing friction and conflict followed. Official Euro-American exploration and survey expeditions visited the middle Yellowstone, and Pompeys Pillar in 1860, 1863, 1872, 1873, and 1874. In 1875 Captain Grant Marsh, pilot of the steamboat Josephine became the first to raise an American flag on the summit of the NHL.

The middle and lower Yellowstone country was filled with troops during the middle 1870s, although officially they stayed on the north side of the Yellowstone River. The third trans-continental railroad survey expedition made its way through the middle Yellowstone Valley in 1873. On March 15 this large group of over 373 civilian surveyors and support staff and more than 1,500 cavalry and infantry troops,

including 10 companies of the 7th Cavalry under the command of Lieutenant Colonel George Armstrong Custer, camped at the mouth of Pompeys Pillar Creek, opposite Pompeys Pillar. On the morning of March 16, while many of the troopers and teamsters were bathing and washing clothes in the river, they were fired on by Lakotah, or Sioux snipers who had worked their way into the brush at the base of the NHL. Only one man was hurt in the incident.

Bands of free-roaming and adversarial Sioux, Northern Cheyenne, and Northern Arapaho found themselves under increasing pressure. Hostile Northern Plains warriors confronted or were confronted by government forces in an escalating series of battles and skirmishes, culminating in Custer's disaster at Little Big Horn in 1876. The following year, with tensions still running high, a short-lived military tent post named Camp Josephine was established at Pompeys Pillar.

By the early 1880s the "hostile" bands had, for the most part, been forced onto reservations. In 1882 the Northern Pacific Railroad was completed along the floor of the Yellowstone Valley. In addition to being an important landmark to nineteenth century travelers, the Pillar had acquired early on, some notoriety because of Captain Clark's signature and the description of the feature in the expedition's journals. Most literate travelers who passed the Pillar were aware of its association with Clark. Tourists stopping at the Northern Pacific Railroad station half a mile to the south of the Pillar routinely made

their way to the signature rock to gaze on Clark's inscription, and often to add their own names next to that of the heroic Captain. This diversion was so popular that the Railroad sought to protect the Clark panel from overzealous pilgrims by covering it with a heavy iron screen.

The passage of the General Allotment (Dawes) Act in 1887 allowed division of agricultural and grazing lands on the reservations into individual allotments. Pompeys Pillar lay within the boundaries of the Crow Reservation in 1887 and several allotments, including the Pillar, were taken up by Crow Indians (or by Caucasian men and their Native American spouses). Tradition holds that the community of Indian allotments at and around the Pillar was placed there to capitalize on Pompeys Pillar as a tourist attraction.

By the turn of the century the agricultural potential of the rich Yellowstone bottomlands had become apparent to settlers, land speculators, and Congress. In 1904 legislation directed the Crow tribe to cede the valley floor south of the Yellowstone River. Compensation was promised and Native Americans already settled on Indian allotments were allowed to patent those allotments as private land. In the same year construction began on the Huntley Irrigation Project, an extensive irrigation system designed to water what was then known as Pompeys Pillar Bottoms. In 1909 the Huntley Project lands were opened to homestead entry and were quickly settled.

Interest in Pompeys Pillar by Lewis and Clark buffs continued, and it was recognized as a locally important historical and cultural landmark as well. The local Shining Mountain chapter of the Daughters of the American Revolution had the weathered Clark signature cut more deeply in 1926. The same group in 1928 had a plaque placed on the NHL to commemorate Lewis and Clark. In 1938 the Masons had a plaque placed on the NHL honoring the explorers as Masons. Until the 1950s the Pillar served as the site of the Huntley Project annual Fourth of July picnic.

The Indian allotments comprising the Pompeys Pillar property were patented and eventually passed through a number of private owners who either farmed the land or leased it to be farmed. In 1954 Don Foote rented the property on which the NHL stands in order to develop a scenic and historical attraction. In 1958 Don and Stella Foote acquired the property including the NHL and, over the next several years, accumulated additional surrounding acreage. The Footes developed the site for visitors as a frontier theme park, building trails and visitor facilities, and bringing in historic buildings and artifacts for display. In 1968 a plaque commemorating the efforts of Don Foote in the Pillar's preservation was placed near Clark's signature.

Liability insurance costs forced the closure of the Foote's development in 1988. In November, 1991 the BLM purchased the property and the Foote Americana collections. Pompeys Pillar

was reopened to the public by the BLM in May of 1992.

Historic Features

A number of significant historic features are present on the NHL including Clark's 1806 signature, Native American pictographs (paintings) and petroglyphs (engravings), signatures and markings of fur trappers, Yellowstone River steamboatmen, frontier army troops, railroaders, missionaries, cattlemen, homesteaders, and others from the nineteenth and early twentieth centuries.

Markings on the NHL have received varying degrees of weathering. Those markings that have northern aspects, such as Clark's signature panel; and those that are directly exposed to the wind and rain, and to the actions of freeze/thaw have experienced the most weathering. A sequence of photographs taken of the Clark signature panel since the turn of the century show an increase in the rate of deterioration of the inscriptions since the 1960s. In part this is due to a shift in the rock above, allowing rainwater to run directly over the Clark panel, and in part may be due to a concurrent upwind increase in acidic industrial and automobile pollution. Without protection ongoing weathering of the sandstone surfaces of the NHL will result in eventual loss of all of the rock art and inscriptions except the Clark signature with its protective glass covering.

In addition to the natural deterioration of the rock's surfaces, several relatively minor incidents of vandalism have

occurred since BLM acquired the property. Currently there is a camera and alarm system to monitor Clark's signature. There are no electronic security measures in place to monitor the other rock art and inscriptions.

A wealth of archaeologically fascinating historical features are present elsewhere on the property. The Huntley Main Canal, dug between 1904 and 1909, runs along the base of the hills at the south edge of the Yellowstone Valley, from above the town of Huntley to the town of Pompeys Pillar. Laterals built historically as a part of the Huntley Project irrigation system do exist on the Pillar property. These features were and are essential to the agricultural rural economy and way of life of this part of the Yellowstone Valley. The Tschida farmstead is a standing house and complex of farm buildings built and used in the period from 1924 to approximately the 1970s. The remains of other early twentieth century farmsteads on the property are visible to varying degrees; some are only evidenced by light scatters of household and farm debris in what are now plowed fields. The 1914 Government Land Office plat of the area shows the locations of a variety of farm roads, fencelines, and irrigation features that are no longer visible but which could probably be identified archaeologically.

Some of the late nineteenth century historic features which have been identified archaeologically, or which are suspected but not yet located include the location of the 1877 military picket post Camp Josephine, an 1879 ranch

cabin and grave of one of the last people to die in a hostile Sioux raid in the Yellowstone Valley, and a slightly later beef processing facility probably located at the Pillar to take advantage of the nearby railroad stop. The 1883 Northern Pacific Railroad station itself was located immediately adjacent to the Pompeys Pillar property, within the current railroad right-of-way.

Native American occupation of the Indian allotments in the Pillar area continued into the twentieth century. The farm buildings and homes occupied during this period of intense acculturation for western Native Americans should be detectable archaeologically.

Prehistoric Resources

The prehistoric period for the middle Yellowstone Valley and Pompeys Pillar effectively ended with Francois Antoine Larocque's 1805 visit, and the 1806 passage of the William Clark party. Abundant archaeological evidence points to intensive use of the Pompeys Pillar area by Native Americans throughout the prehistoric past. Surface archaeological inventory of portions of the property as well as limited archaeological excavations have documented the remains of multiple, overlapping stone-age camps. Visible remains noted include fragments of butchered and processed bison bone, fire-cracked river cobbles used for stone boiling, stone tools and debris from tool manufacture, and ceramics. Analysis, dating, and interpretation of the archaeological materials and their distribution is ongoing. Much of the

property has been cultivated for nearly a century, resulting in badly mixed archaeological deposits, and suggesting probable sporadic collection of important artifacts (such as projectile points) as these were plowed up. However, several areas on the property which have escaped cultivation may harbor buried, intact deposits, and archaeological materials may in some places remain in context below the plow zone.

Museum Property - Artwork and Artifacts

While Pompeys Pillar was owned by the Foote family and operated as a scenic and historic theme park, they assembled a collection of frontier era artifacts for display, as well as documents relating to the Lewis and Clark expedition and to Pompeys Pillar, and several original pieces of artwork. When BLM purchased the property in 1991, much of the Foote's collection was also purchased. These materials either remain on display at Pompeys Pillar, or they have been removed for safekeeping until proper facilities can be built for their display.

Artifacts in storage on the site or at the BLM Billings Curation Facility include several horse-drawn wagons, a civil war-era military cannon on its carriage, similar to those used during the campaigns against the Plains Indians in Montana in the late 1800s, a collection of homestead era house furnishings, the iron grate placed over the Clark signature panel in 1882, and a few Native American artifacts.

The Foote's extensive library on Lewis and Clark and the Pompeys Pillar site is also in storage in Billings. This library includes several old and rare books, as well as the most complete collection of documents, photographs, and publicity materials relating to the Pompeys Pillar during the Foote's ownership. A series of commissioned oil paintings and pen and ink illustrations by the well-known western artist J. K. Ralston is also in the BLM collection. This series includes several large canvases depicting historical events during the Lewis and Clark expedition, as well as other events related to Pompeys Pillar, such as the 1873 attack on the Custer's 7th Cavalry and the Northern Pacific Railroad survey party camped across the river from the NHL. These valuable paintings are currently housed in the First Interstate Bank building in Billings where a climate controlled environment can be maintained.

Farmland

Farming is occurring on 200 acres under a Sikes Act Agreement. Under this agreement, BLM allows an individual to farm for profit. In payment, the farmer is required to provide wildlife habitat improvements such as standing crops and other projects approximately equal to the value of a lease. Standing crops are unharvested crops such as corn, sorghum and cereal grains that are left for wildlife forage and cover. This has allowed the farmland to continue to be in production while providing wildlife habitat improvements.

Based on information obtained from the Natural Resources Conservation

Service (NRCS), approximately 210 acres of the 366 acres acquired in 1991 are classified as Prime Farmland. Not all of this prime land is under cultivation. It is estimated that about 100 acres of prime farm land are currently under cultivation.

Vegetation

Unfarmed areas are dominated by cottonwood, willow, Russian olive and buffaloberry. A small wet area with rushes and cattails occurs near the southeast corner of the site.

Noxious weeds such as Spotted and Russian Knapweed and Canadian thistle are present at Pompeys Pillar. A biological control research project was initiated in 1992. The project is studying biological agents to control field bindweed, leafy spurge, Canada thistle and Russian knapweed. The control agents have been released immediately to the east of the water well and on the island. It is still too early to conclude any results from the project.

Two seasonal wetland areas are present as a result of irrigation water runoff. One area is 5-6 acres with cattails/hardstem bulrush, sandbar willow, and peachleaf willow in the southeast area. This was an old gravel borrow pit area for highway construction.

The second wetland area is about one acre in size and is adjacent to the river meander channel. There are no wetland plant species on this site, because it fills infrequently and water levels are low.

Two riparian areas are present. A natural riparian area occurs along the Yellowstone River. A modified riparian area occurs along the perennial stream that also serves for irrigation water return.

The riparian area along the river contains several cottonwood community types (C.T.) as classified by the Montana Riparian Association:

1. Populus deltoides (black cottonwood)/ Cornus Stolonifera (red-osier dogwood) C. T.;
2. Populus deltoides/ Amelanchier alnifolia (western snowberry) C.T.;
3. Populus deltoides/ Recent Alluvial Bar C.T.- island area;
4. Populus deltoides/ Herbaceous C.T. - picnic area.

The riparian area along the perennial stream is classified as a Shepherdia argentea C.T. and Sarcobatus vermiculatus C.T.- southeast perennial stream and large drain ditch.

Wildlife

The area supports a variety of wildlife species, some resident and some migrant. Mule deer and whitetail deer, turkey, raccoon, fox and coyote inhabit the area. Bald eagles use the area during the winter and there is a potential nesting sight that is being monitored. Upland game birds present include pheasant, Hungarian partridge and sharptail grouse. Waterfowl extensively use the wetland area, river, canals and cropland, especially during the spring and fall. Nongame birds are abundant. A list of birds common to a

similar habitat type is found in Appendix 4. Rattlesnakes have been observed, primarily during late spring and early fall. Mosquitoes are numerous from July through September.

Fish species include channel catfish, smallmouth bass and sauger. These species occur both in the Yellowstone River and the perennial stream in the southeast area of Pompeys Pillar. Appendix 5 contains a list of recorded, unrecorded and past fish species in the vicinity of Pompeys Pillar.

The perennial stream has been channelized, removing natural meanders. Fisheries habitat is minimized due to the lack of pools and overhanging cover. Opportunities exist for improving fish habitat by either re-establishing the original meanders or installing instream structures such as bank deflectors, rock or log gabions or large boulders.

Threatened and Endangered Species

Informal consultation with the U.S. Fish and Wildlife Service has identified four species that may occur in the planning area. They are the bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), black-footed ferret (Mustela nigripes), and the pallid sturgeon (Scaphirhynchus albus). Currently, the only species known to inhabit the area is the bald eagle. A historic nest site is located in the cottonwood riparian area along the river. The nest was active in 1991 and 1992, although no eggs were laid in either year. The nest was abandoned in 1993 and the birds re-nested

downstream where they fledged one young. The nest was destroyed by wind or snow in 1995.

The Montana Department of Fish, Wildlife and Parks has documented short term (1-2 days) concentrations of spring migrant bald eagles at Pompeys Pillar. Concentrations are unpredictable because the bald eagles are influenced by weather patterns during their migration north to nesting areas. On March 27, 1990, approximately 100 bald eagles were found roosting at Pompeys Pillar. Smaller groups of 12-25 eagles have been observed since 1986. It is suspected that the spring concentrations of bald eagles may coincide with the spawning of goldeye in the Yellowstone River.

The Yellowstone River is historical peregrine falcon habitat. However, there are no known sitings in the area.

Pompeys Pillar does not contain black-footed ferret habitat. High water tables and the river bottom floodplain preclude the area from providing suitable habitat for prairie dogs, the primary ferret diet.

There are no known threatened or endangered plants in the area.

Scenic Values

Planning efforts in 1993 and public scoping held in October 1995 identified three viewsheds important to maintaining the historical setting of Pompeys Pillar.

One viewshed is the area immediately to the north, across the Yellowstone

River, as viewed from the top of the rock. This viewshed has changed little since the days of the Lewis and Clark Expedition.

A second is the view of the rock from the crest of the interchange to the entrance. From this position, visitors are looking directly at the rock from their vehicle as they approach the entrance.

The third is the area seen by visitors from the boardwalk. This would be the area that immediately surrounds the rock including the view from the highest platform on the boardwalk.

Under the Bureau's visual resource inventory procedures, scenic quality and visual sensitivity of the NHL rate high. For the remainder of the site, scenic quality rated low (primarily because of farming), while visual sensitivity rated moderate. Based on these ratings, the NHL falls within Visual Resource Management Class II, while the remainder of the area falls within Class III.

The management objective of Class II is to retain the existing character of the landscape. Management activities should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color and texture found in the predominant natural features of the characteristic landscape.

The management objective of Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape

should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant features of the characteristic landscape.

Minerals

Ownership of the mineral estate has not been established due to complexities arising from multiple ownerships previous to BLM acquisition. If the minerals are under private ownership, BLM has no control over access to the mineral estate. It has been well established through the court system that access to minerals takes precedence over surface management.

Currently there are no data to indicate that mineral development is likely. The area is not currently leased for oil and gas. Pompeys Pillar lies within an area considered as moderate potential for oil and gas development. It is not anticipated that there is any coal underlying the area. No major sand or gravel deposits have been identified.

Economic Conditions

Pompeys Pillar is in Yellowstone County about 30 miles east of Billings on I-94. The County's estimated population in 1994 was 122,765 and for Billings was 86,578 (MT Dept of Commerce, personal communication 11/95). These figures represent 8.2 percent and 7.2 percent increases since 1990, respectively. Economic growth in Billings is expected to

continue to contribute to population growth into the foreseeable future. The Billings economy has recovered from the economic downturn suffered in the mid-1980's due to the decline in the oil and gas industry and now has a more diversified and stable economic structure. Billings is a major tourist service center and serves as a gateway to a wide variety of nationally-recognized recreation and historic sites.

Recreation

Visitation at Pompeys Pillar reached 42,000 in 1995, up from about 9,900 visitors in 1989. Since BLM purchased the site in 1991, visitation has steadily increased. About 25 percent of all U.S. visitors are from Montana, the rest are from out-of-state, and about 7 percent of all visitors are from foreign countries (see Table 1). It is estimated that about one-half of all visitors spend one to two hours at the site, the rest stay one hour or less.

Table 1
Origin of Visitors to Pompeys Pillar

United States	93 %
Montana	25.0 %
Adjacent states (WY, ND, ID)	26.7
Midwest	16.4
West Coast	14.0
East Coast	10.4
South Central states	4.1
Intermountain West	<u>3.4</u>
U.S. Total	100.0 %
Foreign Country (Canada, Germany, Japan, England)	<u>7 %</u>
Total	100 %

In 1995 a \$3/vehicle fee was introduced. Most visitors were willing to pay the fee, but it is estimated that about 20 percent of potential visitors left because they didn't want to pay (Dick Kodeski, personal communication 11/95). In spite of the fee, visitation in 1995 was about five percent above 1994 visitation. About \$11,000 was collected from the fee in 1995.

Current visitation is estimated to contribute about \$395,000 and 19 jobs to the economy,¹ assuming about 25 percent of visitation is by Montana residents and 75 percent is by non-residents. Visitor spending is primarily in retail trade and services and also transportation.

Visitation is expected to increase in the future due to a variety of factors:

- * Population growth in Billings;
- * Visitation trends to historic and recreation areas near Pompeys Pillar (Yellowstone NP, Little Bighorn Battlefield, Big Horn Recreation Area);
- * Increased interest in general in visiting historic sites;
- * Increased highway traffic during general tourism seasons (Pompeys Pillar is in a major tourist corridor);
- * Lewis and Clark Trail bicentennial activities (culminating in 2003);
- * MT Dept of Transportation plans to erect a new highway sign identifying the historic site. There could also be more billboards advertising the site in the future.

In addition to Pompeys Pillar's unique historic qualities, many people visit the site to view wildlife and to hunt. It is estimated that about 20,000 visits (of the current 42,000+ visitors) include wildlife viewing at the site in addition to viewing historic resources. There are no reliable estimates of the economic contribution of participation in wildlife viewing at the site since it is difficult to separate the activity of wildlife viewing from viewing historic resources. However, a recent study of recreationists who engage in wildlife viewing in Montana revealed the following (Morsey and McCool, 1991b):

- * Non-residents attracted to the area for wildlife viewing stayed longer, spent more money and were more likely to hold professional jobs than other types of visitors;
- * For the same wildlife viewing visitors, visiting historic sites was the second most important reason for vacationing in Montana;
- * Montana residents who take wildlife viewing trips spend more money and time away from home than those whose trips do not involve wildlife viewing;
- * People who engage in wildlife viewing want more information and maps, better interpretation, more nature and hiking trails and handicap access.

In summary, visiting historic sites and wildlife viewing are compatible and complementary activities that are growing in popularity, and it appears that many recreationists enjoy pursuing

both activities at the same time.

Pompeys Pillar also offers environmental education opportunities throughout its open season due to its proximity to Billings and the presence of a diverse amount of flora and fauna. About 1,000 visitors participated in environmental education programs in 1993. By 1995, there were 2,000 visitors who participated in environmental education at the site. In 1995, there was a substantial increase in environmental education visitation during the fall months (September and October); prior to 1995, most visitation was during May. Without further development at the site environmental ed visitation is expected to increase due to growing awareness of the site's importance, population growth in the region, and the fact that visitation has grown in previously non-traditional visitation months.

Hunting at Pompeys Pillar is also popular with local residents, primarily for deer, upland game birds and waterfowl. Although there are no estimates of how much hunting occurs at the site, it is believed that most hunters are from the local area, primarily Yellowstone County residents. According to the 1991 U.S. Fish & Wildlife Service 5-year survey on hunting, Montana residents spend an average of \$45/day for all types of hunting (USDI Fish & Wildlife Service, 1993). Hunters at Pompeys Pillar probably spend much less than this since most don't travel far and don't need to spend money for lodging.

Agriculture

There is one irrigated farming operation, approximately 200 acres total, currently operating on the public lands within the boundaries of the Pompeys Pillar site. About 100 acres under cultivation are designated as prime farmland.² A variety of crops are grown, including alfalfa, corn, barley, oats, and wheat. Sugar beets also were grown in 1995, providing the farmer additional income not available in most years from farmland at Pompeys Pillar.

The operator currently farming at Pompeys Pillar has farmed at the site for about 22 years. His entire operation totals about 1,500 acres, all within close proximity to the Pompeys Pillar site. Crops grown include alfalfa, corn, barley, oats, wheat, sugar beets and, additionally, cattle grazing (Will Oblender, personal communication, 1/96).

Farming at the site is conducted under a Sikes Act Agreement. Under this agreement BLM allows an individual to farm for a profit and in return the farmer must provide services and projects approximately equal to the value of the lease. At Pompeys Pillar the farmer provides fences, some road and fence maintenance, and leaves standing crops for wildlife on about 10% of the total acreage farmed.

Appendix 6 shows production levels and estimated total production value for crops grown over the past three years at the site. Note that total production value was significantly higher in 1995 over past years due to sugar beet

production (about \$75,000 compared to \$43,500-\$47,000).

The farmer has expressed some concerns about crop damage from hunters. Although access to the farmland under cultivation is not allowed, it does occur. Physical barriers (eg. fences and gates) are in place but Off-Road Vehicle designations are not yet established so there is no legal authority to stop off-road travel.

In addition to this farming operation, there is a 12-acre private inholding at Pompeys Pillar, on which six acres of alfalfa is grown. None of the alternatives analyzed in this amendment propose any changes to the current uses of that private parcel.

Current Uses and Recreation Opportunities

Pompeys Pillar was purchased by the BLM from the Foote family in 1991 and was reopened to public use in 1992. The purchase included original paintings and books, a cannon, four old wagons and a canoe built by the Huntley Lions Club to replicate those used during the L&C Expedition.

Public interest in maintaining the site is high as evidenced by the formation of the Pompeys Pillar Association. This group was established in 1993. Its purpose is to assist the BLM in managing historical, scientific, educational and interpretive programs at Pompeys Pillar. In 1994, association volunteers contributed over 1,800 hours

towards managing the site. This increased to over 2,000 hours in 1995.

Clark's signature is the primary point of interest at the site. Over 20,000 visitors registered at the site during the 1992 season. Visitation increased to over 40,000 in 1993, 1994 and 1995. Visitation is anticipated to increase annually.

A visitor survey conducted in 1993 revealed the following:

1. Visitors generally wanted to see more historical displays and self-guided tours
2. Visitors were generally pleased with the facilities especially the quality and variety of trails and the picnic area
3. Visitors identified access for the disabled as the facility in most need of improvement
4. Visitors felt there needed to be more variety of activities available.

The location of Pompeys Pillar places it in a major tourism corridor. Most visitors stop on their way to other major destinations such as Yellowstone or Glacier National Park or the Little Bighorn Battlefield. Visitors often make a day of visiting both Pompeys Pillar and Little Bighorn Battlefield. Visitors travelling between the two sites choose between a route up Fly Creek to Interstate 90 which is paved for about half the distance and good gravel road for the remainder, or stick to a paved highway through the town of Custer, which is 30 miles longer.

Other recreation uses that occur on the site are deer and upland game bird hunting, fishing (both from the river bank and the irrigation canal), wildlife viewing, environmental education classes and picnicking.

The Yellowstone River provides opportunities for floating and fishing however, access is limited to a few points in the general area of Pompeys Pillar. The Gritty Stone fishing access site is the closest public boat launch. It is located about seven river miles upstream from Pompeys Pillar. The nearest downstream public boat launch is the Captain Clark fishing access site about 12 miles downstream.

Pompeys Pillar is accessible by boat. During normal flow, there is a stretch of gently sloping shoreline that is conducive to parking canoes and small boats.

Pompeys Pillar has been identified as a watchable wildlife site in the *Montana Wildlife Viewing Guide*. Wildlife viewing opportunities are considered outstanding. The site provides viewing for birds, mammals and reptiles. Bird species include geese, ducks, shore birds and raptors and many other nongame species (Appendix 4). Both mule and whitetail deer are common. Fox, coyotes, bobcats and an occasional mountain lion have been sighted. Bullsnares and rattlesnakes are common.

Demand for environmental education programs at Pompeys Pillar is increasing because of the area's proximity to Billings area and the

presence of a diverse amount of flora and fauna. A strong attribute for environmental education programs at the pillar is the possibility to relate historic changes in vegetation and species distribution. Over 1,000 visitors participated in environmental education programs at Pompeys Pillar in 1993. Since 1993, this use has doubled and is expected to increase annually as the area becomes discovered and partnerships with schools are developed.

Existing Site Facilities

The Northern Pacific Railroad placed the first protective grate over the Clark signature in 1882. The grate has been replaced by a glass cover.

In 1992 a visitor contact station, parking lot, two vault toilets and a staircase to nearly the top of the rock were constructed. These facilities were considered temporary at the time of construction. It was assumed that once land use and activity planning were completed, the facilities would be modified, relocated or eliminated. A water well was drilled in 1993 to provide potable drinking water.

The visitor contact station is a 30' x 40' log structure. Interior space is approximately 841 square feet (29 x 29). Two concrete vault toilets with concrete walkways were installed near the visitor contact station.

The gravel parking lot accommodates approximately 30 passenger vehicles and 10 recreational vehicles at any one time. Gravel was also added to the

existing access road.

At the time of purchase dirt paths and rock steps with handrails provided access to Clark's signature and the top. Erosion was a problem and the trail was unsafe. BLM had the existing wooden staircase built for public safety, resource protection and to reduce erosion.

Drinking water is drawn from a shallow well (approx. 30 feet). Chlorination is required to meet State and Federal drinking water standards. The drinking water system was not used during the entire 1995 season due to contamination.

Approach signs to the interchange on I-94 announce the site. Current highway signing is confusing to visitors who get the town and landmark mixed up.

Approximately three acres of Pompeys Pillar lie south of I-94. This parcel has a billboard advertising Pompeys Pillar.

Other area attractions

Ten miles to the west is the Huntley Museum. This museum was established to preserve the local area farming history. Nearby communities include the town of Pompeys Pillar (3 miles east), Worden (7 miles west), Ballantine (7 miles west), and Huntley (15 miles west). State highway 312 extends from Interstate 94 at Pompeys Pillar Landmark to Billings. Highway 312 parallels the Interstate it's entire length, traversing the Huntley Irrigation Project and provides visitors with ready access to Pompeys Pillar, the Huntley

Museum, Yellowstone River access sites and small farms along the route. Highway 312 has the potential to be designated a scenic byway.

Chapter 4 - Environmental Consequences

In this chapter, anticipated impacts of all proposed actions are described.

Assumptions

Cultural Resources

Prior to any ground disturbance anywhere on the property a cultural resource inventory would be conducted encompassing the area which would be disturbed. Ideally, to gain an understanding of the context, range, and relative condition of the cultural resources present, inventory would be conducted systematically for the entire property. Initially, however, preliminary archaeological work might be limited to smaller areas where construction is proposed. Surface inventory would include examination of the ground surface using pedestrian transects spaced not more than 30 meters apart. Where archaeological resources are identified through a surface expression (artifact scatters or other indications of archaeological deposits) these resources would be fully recorded. Subsurface testing would be necessary to fully assess the subsurface potential of discovered sites for evaluation for the NRHP. In areas to be disturbed,

subsurface testing would also be necessary where archival sources indicate that cultural resources should be present, or where other characteristics of the landscape indicate the potential for buried deposits. Subsurface disturbances would also be monitored as they occur. If cultural resources are discovered during monitoring, work will be halted until the resources can be assessed.

Archaeological resources which are considered eligible for the NRHP would either be avoided, or, in consultation with the Montana SHPO, a plan for mitigating the effects of the proposed actions would be formulated and implemented. Mitigation would consist of an appropriate level of data recovery, possibly including excavation.

The property includes two extensive landforms which have the potential to harbor significant archaeological deposits. The first of these is the lower terrace lying north and east of the NHL. This landform has not been cultivated and is presently densely covered with a cottonwood forest community. Based on nineteenth century photographs and survey plats, the lower terrace is believed to have accumulated since the beginning of the twentieth century, possibly as a result of adjustment of the Yellowstone River to the effects of the Huntley Irrigation Project and other large upstream irrigation systems. The potential for significant archaeological deposits on or within this landform is limited to early twentieth century remains.

The second major landform with the

potential to harbor significant archaeological deposits is the higher terrace east and south of the NHL. The greater part of this landform has been under cultivation for between 50 and 100 years. Considerable surface inventory and subsurface testing has already been conducted on this upper terrace, particularly in the vicinity of the NHL and the visitor center. The results of this work strongly suggest that the disturbance to sites in cultivated portions of the property has already reached a maximum. Within tested areas the base of the plow zone largely corresponds to the top of a saturated clay zone which does not contain cultural materials.

Exceptions to this situation may exist where cultural deposits are present below the plow zone, or in limited areas within formerly cultivated fields which may have escaped plowing, such as along fencelines, irrigation ditches, or near other modern features. Important archaeological information may also be retrievable from the artifacts and debris scatters even in their disturbed state. Diagnostic artifacts such as projectile points, or concentrations of materials which can be related to a single component or occupation, such as household debris related to a particular homestead may be present and available for study. Further farming using the same methods is not likely to significantly alter remaining patterns of distribution of archaeological materials in the fields. A change to a more intensive land use pattern, such as construction of facilities within what were agricultural areas, has the potential to adversely affect significant

cultural resources. Change to a less intensive land use, such as planting to permanent native plant species will not adversely affect cultural resources in areas formerly cultivated.

The system of irrigation laterals and drains on the property are a part of the Huntley Irrigation Project. Portions of the Huntley irrigation system are eligible for listing on the NRHP. As additional components are recorded, including those on the property, they will be evaluated in the context of the system. Prior to any disturbance of irrigation features, the irrigation system on the property would be recorded and evaluated. For those features which would be adversely affected by a proposed action, and which are found to be eligible individually or as contributing elements of an eligible cultural property, an appropriate plan to mitigate the effects of the actions would be formulated in consultation with SHPO, and would be implemented. Prior to any disturbance of these features, the legal questions regarding tampering with this functioning irrigation system would have to be answered.

The Tschida farmstead is a standing farm complex in use from 1926 to the 1970s. This site has not been evaluated for the NRHP. Prior to disturbance of the farmstead the site will be fully recorded and evaluated for eligibility for the NRHP. If the site is found to be significant, a plan to mitigate the effects of the actions would be formulated in consultation with SHPO, and would be implemented.

Wildlife Standing Crops

The acreage of wildlife standing crops used in the analysis is based on the acres negotiated in the past Sikes Act agreement.

Cost Estimates

Construction and operational costs have been estimated for each alternative to help the reader understand the scope of development. Under Alternative A, there would be no construction costs and the estimated operational costs would be about \$200,000. Under Alternative B, the estimated construction costs would be about \$650,000 and operational costs would be about \$250,000. Under Alternative C, construction costs would be about \$3 million and operational costs would be about \$300,000. Under Alternative D, construction costs would be about \$20 million and operational costs would be about \$2 million.

Economic Analysis

The economic analysis in each alternative was based on the current farmer's operation. However, the Sikes Act agreement is negotiated annually, and open to competitive bid. Lessees could vary in the future.

Impacts of Actions Common to All Alternatives

Impacts to Forestry

Precluding the area from wood product

sales would not impact the supply since there currently are no sales. The periodic removal of dead and dying limbs and trees would slightly lessen the natural appearance of the wooded areas.

Impacts To Livestock Grazing

Not allowing livestock grazing would preclude the farm lessee from grazing crop aftermath and stubble in the cultivated areas. Wildlife would benefit by having additional feed and cover. Visitors who object to the presence of livestock at a recreation site would benefit. The loss of a source livestock feed would be minimal as there are other options for the lessee. There would be no loss of grazing preference as none was ever established.

Impacts to Minerals

Mineral development activities have the potential to negatively impact Pompeys Pillar. However, development is unlikely to occur.

Impacts to Fish and Wildlife

Managing riparian areas in Proper Functioning Condition would benefit all fish and wildlife species that occupy the area.

Nesting territories would be lost and feeding opportunities would decline for cavity nesting birds and other passerine birds where dead or dying branches or trees are periodically removed. This would likely result in a small loss of birds where adjacent habitat could not support higher numbers. However, the

loss would be minimal and not expected to adversely impact the population in the general area.

Impacts to Threatened or Endangered Species

There would be no impacts to threatened or endangered plant or animal species.

Impacts to Recreation

Providing a safe, potable supply of drinking water would help satisfy one of the basic visitor needs.

Short term surface impacts could be caused by fire suppression activities where heavy equipment is used. However, the impacts would be reclaimed and unnoticeable to the casual observer within one to two years.

Impacts By Alternative

Alternative A - No Action

IMPACTS TO CULTURAL RESOURCES

Under Alternative A impacts to cultural resources would remain the same as at present. Only the Clark panel would be monitored electronically; occasional relatively minor vandalism could be expected to continue as long as much of the NHL is left unprotected. The risk of a major vandalism incident would also exist, in which the Clark panel or

other important panels may be irreparably damaged. A long off season period with walk-in access and intermittent BLM or law enforcement presence would continue to provide opportunity for major vandalism to the signature and rock art panels. Because the existing visitor facilities would remain in their current location BLM staff would remain close to the NHL and would provide some deterrence to would-be vandals.

Under this alternative the panels would continue to gradually fade as the sandstone disintegrates, eventually leaving only the Clark panel because of its protective glass covering. Based on the rate of disintegration in the period between the 1960s and today the majority of the unprotected rock art will be gone within one hundred years from now. (Comparisons of photos from near the turn of the century with those taken in the 1960s, versus the situation today indicate that the rate of disintegration of the sandstone surfaces has accelerated in the past 30 years.)

There would be no opportunities to enhance the setting and feeling of the NHL by restoring the surrounding land to a vegetation community characteristic of 1806. The view from the top would continue to be disrupted by vehicles entering and leaving.

Public education opportunities would remain the same as at present.

IMPACTS TO RECREATION

Under Alternative A, current facilities would continue to be inadequate.

Space would not be available for the additional interpretive displays needed to assist visitors in realizing the historical significance of the Pompeys Pillar. The lack of space would also deprive most visitors the opportunity to view the art and books. Working conditions would continue to be poor for employees and volunteers from the lack of office space. The existing restroom facilities would continue to be inadequate to meet the personal needs of visitors. These conditions would likely degrade the visitors overall experience at Pompeys Pillar. Existing facilities would not be adequate to service the increasing demand for environmental education programs for local schools.

Enhancing visitors experience through creating a historic setting would be precluded. All facilities would remain in their current location and farming would continue near the NHL. This would preclude opportunities to enhance visitors experience through restoring part of the site the an 1806 setting.

No new trails would be constructed. Most of Pompeys Pillar would continue to be inaccessible to people with disabilities.

The presence of existing facilities near the NHL would slightly impair the visitors experience. BLM staff would be close to the NHL, increasing staff availability for visitors, reducing the potential for vandalism and providing a faster response time for medical emergencies.

Vehicle travel would continue to be controlled by locked gates. This could

make it difficult to prevent some visitors from driving around.

Activities on adjacent private lands would have the potential to interfere with visitor experiences if the converted from agriculture to commercial or residential properties.

Keeping the area west of the Tschida Farmstead road closed to shooting would preclude hunting opportunities on about 130 acres. However, shooting would be allowed on about 340 acres, somewhat offsetting the loss on the 130 acres. The shooting closure would maintain a margin of safety for visitors in and around the NHL and visitor contact station. Opportunities exist for encounters between hunting and non-hunting visitors. However, these encounters would be minimal as most visitation occurs outside the hunting seasons.

Fishing opportunities would continue to be minimal.

This alternative would offer few opportunities for corporate partnerships. Farming would continue. Support would likely decrease from people who would like to see additional development. The loss of support would likely reduce BLM's capability to provide a recreational experience to visitors.

ECONOMIC IMPACTS

Recreation

Under continuation of current management, visitation at Pompeys Pillar is expected to increase annually

into the foreseeable future. In addition, bicentennial activities to celebrate the 200th anniversary of the Lewis and Clark Expedition will be held in 2003 all along the Lewis and Clark Trail and this will likely cause a significant increase in visitation which would then decline somewhat and level off in the following few years.

Given current trends in recreation in Montana, at Pompeys Pillar, and for historic resources and wildlife viewing in particular, it is estimated that visitation under Alternative A could reach 75,000 visitors annually. Assuming visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$707,000 and 34 jobs annually to the Montana economy.

This economic impact does not include increased expenditures associated with operations and maintenance of the site, about \$150,000 annually. This is about the current level of expenditure so there would be no additional impact.

Environmental education programs will probably increase as well, due primarily to two factors: local school enrollment is growing along with the general population, and interest in the Lewis and Clark Expedition will also grow as the bicentennial approaches.

Agriculture

About 200 acres would remain available for farming, so there would be no impact to the farming operation.

IMPACTS TO WILDLIFE

There would be no effect on wildlife habitat from the existing situation. The Sikes Act Agreement would remain in effect. Standing crops currently used for wildlife habitat and forage such as corn, sorghum, and cereal grains (wheat, barley, and oats) would continue to be used. The existing standing crop acreage would remain about the same annually with about 12 percent or 23 acres of the total farm acreage in standing crops. Game species such as pheasants, waterfowl and white-tailed deer would continue to benefit from standing crop forage and cover.

Fisheries habitat would continue to be marginal in the channelized stream.

IMPACTS TO LANDS AND REALTY

Current agricultural uses on adjacent private lands would have no adverse impacts to the historic setting at Pompeys Pillar. If commercial or residential development were to occur on the private lands to the west and north, the sights and sounds would disrupt the historic setting. The potential for these impacts could be precluded through purchase, conservation easements or other agreements with willing adjacent land owners.

IMPACTS TO MINERAL DEVELOPMENT

There is currently no indication of any minerals that could be economically developed.

IMPACTS TO VISUAL RESOURCES

The sight and sound of vehicles entering and leaving would detract from the setting. For some visitors approaching from the interchange, farming near the NHL would be noticeable and detract from their view of the NHL.

IMPACTS TO PRIME FARMLAND

Under this alternative there would be no impacts to prime farmland. The 100 acres of prime farmland currently under cultivation would continue to be farmed. The 110 acres of prime farmland not under cultivation would not be farmed. However, these acres have never been farmed because they are in the primary floodplain of the Yellowstone River.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, facilities and trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an irretrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of facilities and trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste.

The effects could be reduced but not totally eliminated through effective visitor administration.

CONCLUSION

There would be no significant cumulative impacts under Alternative A. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would continue to marginally meet the needs of visitors but would not prevent them from viewing Clark's signature. There would be no impacts to agriculture.

ALTERNATIVE B

IMPACTS TO CULTURAL RESOURCES

Under Alternative B, a slightly longer open season would allow for an increased period of BLM presence at the NHL and would provide less opportunity for off-season vandalism affecting the rock art. Most of the documented vandalism has so far occurred during the peak visitation periods. These incidents have all been relatively minor. A slightly longer open season may result in an increase in minor incidents of vandalism to the rock faces, but would reduce the risk of major incidents in which the Clark panel or other significant panels are irreparably damaged. Surface collecting of artifacts or other forms of vandalism on other sites on the property would also be discouraged by a longer period of BLM presence. Increased opportunities for protection of the panels on the NHL, through electronic or other means, would significantly

reduce the potential for any vandalism.

Under this alternative, the historic feeling and setting of the NHL could be enhanced through re-establishing a vegetation community characteristic of 1806. The potential for education of visitors would increase somewhat.

IMPACTS TO RECREATION

Under this alternative the scope and size of the existing facilities would remain about the same as the current facilities except that restroom facilities would be improved to meet personal needs of visitors. This would improve the visitors overall experience at Pompeys Pillar. Impacts from limited space for interpretive displays, art books and office space would be the same as for Alternative A.

This alternative would provide the greatest opportunity to enhance to the historical setting related to Clark's visit in 1806. It provides the largest area near the NHL for restoration to an 1806 setting.

Generally, the new trails would improve access throughout the site for all visitors, including people with disabilities. The trails would enhance or provide new opportunities such as sightseeing, wildlife viewing, fishing, and hunting. However, moving the visitor center and parking lot would increase the distance that people with disabilities have to walk to reach the base of the NHL.

Relocating the existing facilities away from the NHL would enhance the

historic setting. Sights and sounds from activities at the visitor center and parking lot would be diminished. However, having the visitor center further away would reduce BLM's presence near the NHL. This could have an adverse affect on the visitors experience by resulting in less staff contact with visitors, increased potential for vandalism and a slower response time to medical emergencies.

Maintaining a visual corridor between the interchange and the NHL would provide an unobstructed view of the NHL for visitors approaching from Interstate 94. For some visitors, this would enhance their initial experience.

Limiting vehicle travel to designated roads and trails would prevent damage to soils, vegetation and cultivated areas. Impacts to visitors would be no different that under current management. Currently there is no off-road driving because gates are kept locked.

If adjacent private lands were converted from an agricultural setting to a commercial or residential development, the activities and sights from the development have the potential to adversely affect the setting at Pompeys Pillar. Purchasing or acquiring easements from willing owners of adjacent private lands could avoid these impacts.

The area closed to shooting would preclude hunting opportunities on 200 acres. It is anticipated there would be a small loss in game harvest. Allowing shotguns and archery in the southwest

portion of the area from 11/1 to 4/30 would not be expected to affect visitor safety. Hunters would probably not realize any greater hunting success. Hunting opportunities for people with disabilities would improve with the addition of trails.

Fishing opportunities would improve due to efforts to improve habitat in the channelized stream. Catches would likely improve as well as the variety of fish.

This alternative would offer little opportunity for corporate sponsorship. Eliminating farming would likely alienate some local support for BLM's presence from the agricultural community, reducing the potential for local partnerships.

ECONOMIC IMPACTS

Recreation

With the level of development envisioned under Alternative B and a two-month longer season, visitation is expected to be a little higher than under Alternative A. Given current recreation trends, the longer season, and modest level of development, it is estimated that visitation under Alternative B could reach 85,000 visitors annually. Assuming visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$800,000 and 39 jobs annually to the Montana economy.

This economic impact does not include increased employment and

expenditures associated with construction, operation, and maintenance of new and existing facilities. The economic contribution of construction, estimated to cost \$650,000, would be short term and temporary. Annual operating costs, estimated to be \$250,000, would result in long-term spending patterns similar to those for tourism expenditures, although the impact from additional operating costs would not be much greater than under current management (Alternative A). Finally, in addition to these one-time construction costs and annual operating expenditures, there would be a short-term annual costs for reseeding and contouring the previously farmed areas. These costs would range from \$10,000 - \$30,000 a year for about five years.

The quality of recreation experiences associated with the historic setting and wildlife viewing would improve at the site. Elimination of farming over the next five years would increase the diversity of wildlife species. An increase in wildlife diversity would in turn increase opportunities for wildlife viewing. Hunting opportunities would be reduced due to the extended season of general recreation use (through October) and the loss of wildlife species associated with agriculture. The historic setting around the NHL itself would improve due to the phase-out of farming.

Agriculture

Farming would be phased-out over the next 3 - 5 years. The only farming allowed to occur in the future would be

less intensive, low-tillage farming on up to 66 acres. This type and timing of farming would likely only offer supplemental farm income opportunities since its availability would be only occasional and short-term.

The current lessee farms about 1,500 acres, 200 acres of which are at Pompeys Pillar. Eliminating farming at the site would reduce the farmer's productive acreage by about 13 percent. A three to five year phase-out would give the farmer time to adjust his operation and find additional acreage if necessary. The actual impact to the farmer would depend on his ability and need to find additional acreage.

IMPACTS TO WILDLIFE

Under this alternative, about 134 acres in the historic zones would be restored from farmland to native shortgrass prairie. This type of habitat would provide yearlong cover. However, the cover would be less dense and provide less forage and shorter, less dense escape cover for wildlife. This type of habitat generally favors nongame wildlife species. Wildlife species preferring the shortgrass prairie type habitat would increase. Wildlife preferring cereal grain forage and heavy, dense cover, such as pheasants, would decline or be displaced.

The 66-acre area managed intensively for wildlife habitat would be planted with vegetation similar to the Conservation Reserve Program (CRP) providing yearlong cover for wildlife. This habitat would also increase wildlife species

diversity by attracting wildlife species, such as white-tailed deer and pheasants, that prefer heavy, dense cover. It would also provide additional waterfowl nesting habitat.

Wildlife habitat lost from facility development, and the presence of visitors along trails and near the visitor center and picnic area, would result in some wildlife species having to relocate to adjacent habitat. This would likely cause some loss in numbers of wildlife from overcrowding of the adjacent habitat. However, the loss would be minimal and would not likely adversely affect the overall populations in the general area.

Stabilizing the bank along the Yellowstone River would result in a loss of fisheries habitat where the bank has a natural undercut with overhanging vegetation. However, this type of habitat is very minimal and the loss would not affect the overall fisheries population in the general area.

The variety and numbers of fish in the channelized stream would be expected to increase from habitat improvements.

The flooding period of wetland habitats would be lengthened both in the Spring and Fall. This would provide additional brood rearing habitat and result in a local increase in numbers of waterfowl and shorebirds. Lengthening the flooding period in the fall would benefit migrating waterfowl by providing additional fall migration resting habitat in the area.

IMPACTS TO LANDS AND REALTY

Confining all future utility lines to the existing corridor along Highway 312 would not likely cause any adverse impacts. Currently there are no proposals for new lines.

IMPACTS TO MINERAL DEVELOPMENT

BLM will complete a title search to confirm ownership. If the mineral estate is under private ownership, BLM would have no control over any exploration or development activities. Under this scenario, if BLM secures title to the minerals, the restrictions proposed for federal mineral would not likely preclude any development.

IMPACTS TO VISUAL RESOURCES

Adding new trails has the potential to create a visual intrusion. However, the impacts could be minimized to an acceptable level through proper construction techniques and the use of non-reflective materials of colors that blend with the adjacent landscape.

Sights and sounds from activities associated with relocating the facilities would disrupt the visual harmony of the site. The exposure of subsoils during digging and trenching would create visible color contrasts. However, these impacts would be short term. Impacts to visitors could be further reduced by conducting these activities in the off season.

Confining future rights-of-way to a corridor along Highway 312 and

requiring burial would help maintain a more natural setting.

IMPACTS TO SOIL, AIR AND WATER QUALITY

All construction activities would be designed to prevent adverse impacts to air, soil and water. Short term increases in dust from construction would likely occur. There would be a temporary increase in accelerated erosion from construction activities.

IMPACTS TO PRIME FARMLAND

Under this alternative there would be no farming. About 100 acres of prime farmland would be converted to shortgrass prairie vegetation. The effects of removing this small acreage from production would be insignificant compared with the acreage currently under cultivation in Yellowstone Valley or the region.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an irretrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper

construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

CONCLUSION

There would be no significant cumulative impacts under Alternative B. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would continue to marginally meet the needs of some visitors but would not prevent them from viewing Clark's signature. The loss of farmland would not be sufficient to significantly affect agriculture in the region.

Alternative C - Preferred

IMPACT TO CULTURAL RESOURCES

Under Alternative C a slightly longer open season will allow for an increased period of BLM presence at the NHL and will provide less opportunity for off-season vandalism affecting the rock art. Most of the documented vandalism has so far occurred during the peak visitation periods. These incidents have all been relatively minor. A slightly longer open season may result in an increase in minor incidents of vandalism to the rock faces, but would reduce the risk of major incidents in which the Clark panel or other significant panels are irreparably damaged. Surface collecting of artifacts or other forms of vandalism on other sites on the property would also be discouraged by

a longer period of BLM presence. Increased opportunities for protection of the panels on the NHL, through electronic or other means, would significantly reduce the potential for any vandalism.

Under this alternative, the historic feeling and setting of the NHL could be enhanced through re-establishing a vegetation community characteristic of 1806. The potential for education of visitors would increase substantially with exhibits and other forms of cultural resource interpretation.

IMPACTS TO RECREATION

Under this alternative a larger visitor center would be built. Space would be provided for additional interpretive displays. The art and books would be displayed on site. This would better serve visitor needs for additional interpretive information and personal conveniences. Employees and volunteers would be better served by providing more office space. Visitors would be provided an opportunity to stay 2 - 3 hours.

This alternative would provide a smaller historic setting than Alternative B and relies more on interpretive displays to enhance the experience.

Impacts from providing new trails would be the same as Alternative B except that the existing parking lot would be used for disabled parking, allowing people with disabilities closer access to the base of the NHL. Access for boaters would improve through the addition of docking facilities.

Farming in the visual corridor would detract from the historic setting for some visitors.

The presence of the existing visitor center near the NHL would be somewhat distracting to visitors. However, relocating the access road and parking lot would remove most of the traffic and diminish these impacts. Having a facility close to NHL would provide a greater BLM presence. This would increase staff availability for visitors, reduce the potential for vandalism and provide a faster response time for medical emergencies.

Impacts from limiting vehicle travel would be the same as Alternative B.

Impacts from adjacent private lands would be the same as Alternative B.

Impacts to hunting would be the same as Alternative B.

Impacts to fishing opportunities would be the same as Alternative B.

This alternative would provide the best blend of opportunities to develop local community and the corporate partnerships. It would recognize the adjacent agriculture setting, while providing visitors an opportunity to experience the historical significance of the site.

ECONOMIC IMPACTS

Recreation

Under Alternative C, the current facilities would remain and there would

be a modest level of new development to expand the visitor's center. The site would be open two months longer than under Alternative A. New construction costs would total about \$3 million, with annual operating costs of \$300,000, about double the current cost of operation.

Given current recreation trends, the longer season, and level of development, it is estimated that visitation under Alternative C could reach as high as 250,000 visitors annually. Assuming visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$3.2 million and 114 jobs annually to the Montana economy.

This economic impact does not include increased employment and expenditures associated with construction, operation, and maintenance of new and existing facilities. The economic contribution of construction, estimated to cost \$3 million, would be short term and temporary. Annual operating costs, estimated to be \$300,000, would result in long-term spending patterns similar to those for tourism expenditures although the impact would be lower.

With increased site development, the potential exists to extend the amount of time visitors spend at the site. For non-resident tourists traveling through the state this could mean an additional night's stay in Montana; this would increase the economic impact potentially contributed by recreation development at Pompeys Pillar.

The quality of all types of recreation experiences would be greater than under current management. The 50 acres of farmland restored to native habitat would diversify the wildlife habitat and benefit nongame wildlife species. The loss of farmland would decrease upland game bird habitat (eg. pheasant). An increase in wildlife habitat diversity would also increase opportunities for wildlife viewing. A decrease in upland game bird habitat would be a negative impact to some hunting opportunities. The extended season of general recreation use (through October) and shooting restrictions placed in the Historic Zone/Developed area would also negatively impact hunting opportunities. The historic setting around the NHL would improve due to the farming acreage reduction although it would not be as great as under Alternative B.

Agriculture

About 150 acres total would be available for farming under this alternative. Assuming 12 percent of this would be used for standing crops (about 17 acres), a total of 133 acres would be available for harvest. It is estimated that total value of production of crops grown on 133 acres would be about \$35,300, assuming that crops are grown in the same acreage proportions as under current conditions (see Table 2). Note that these estimates do not include cost of production.

Although the acreage reduction represents about 25 percent of the total acres farmed at the site, it is about 3 percent of the current farmer's total

operation. The actual loss to the farmer would depend on the mix of crops grown, ability to lower production costs, and whether other acreage would be obtained to compensate for acreage reduction at the site.

Increased recreation visitation due to the construction of a visitor's center has the potential to increase crop damage from unauthorized use in farming areas. With well-maintained physical barriers (eg. fences and gates) and proper signing these problems would be alleviated.

IMPACTS TO WILDLIFE

In the historic zones, nongame wildlife species would likely increase on the 50 acres that would be converted from farmland to native shortgrass prairie. Wildlife species that previously used this area and prefer an agricultural setting would relocate to adjacent habitat. This would likely result in a small loss, but would not affect the population in the general area.

In the General Management Zone farming would continue on about 150 acres. There would be a loss of 6-10 acres of standing crops (compared with Alternative A). This would likely result in a minimal displacement of wildlife species, such as white-tailed deer and pheasants, that favor this type of habitat.

Impacts to wildlife from increased visitation from facilities and trails would be the same as Alternative B.

The impacts of bank stabilization along

the Yellowstone River would be the same as under Alternative B.

Impacts from fisheries habitat improvements would be the same as under Alternative B.

Impacts from wetland habitat improvements would be the same as under Alternative B.

IMPACTS TO LANDS AND REALTY

Impacts would be the as for Alternative B.

IMPACTS TO MINERAL DEVELOPMENT

Impacts would be the as for Alternative B.

IMPACTS TO VISUAL RESOURCES

Impacts would be the as for Alternative B.

IMPACTS TO PRIME FARMLAND

Under this alternative about 50 acres of prime farmland would be converted to shortgrass prairie vegetation. Although the acreage of prime farmland taken out of production would be smaller than under Alternative B, the impacts would be similar. This small acreage would be insignificant compared with the acreage of prime farmland currently under cultivation in Yellowstone Valley or the region.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, facilities and trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an irretrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of facilities and trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

CONCLUSION

There would be no significant cumulative impacts under Alternative C. Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would meet the needs of visitors. The farmland displaced by facilities, trails and the historic setting would not be sufficient to significantly affect agriculture in the region.

Alternative D

IMPACTS TO CULTURAL RESOURCES

A year-round open season would allow for a continuous BLM presence at the NHL. In the past vandalism has typically occurred during the high visitation summer season. The documented incidents have all been relatively minor and for the most part, have not impacted the Clark panel or other highly significant panels. The presence of visitors throughout the year, and overnight may provide more opportunity for minor vandalism to the NHL's rock faces. A continuous BLM presence would substantially reduce the potential for major vandalism to rock art and inscription panels on the NHL. Increased opportunities for protection of the panels on the NHL, through electronic or other means, would significantly reduce the potential for any vandalism.

Under Alternative D, the historic feeling and setting of the NHL would be enhanced through re-establishing a vegetation community characteristic of 1806. This alternative would provide for a significant public education program in cultural resources.

IMPACTS TO RECREATION

Under this alternative, Pompeys Pillar would become a major recreation destination with strong ties to Yellowstone Park and the Big Horn National Parks sites. This alternative would provide the largest visitor center and the greatest opportunity to enhance

the visitors experience with interpretive displays. Visitors would be able to stay several days and participate in the greatest variety of outdoor and indoor activities.

This alternative would provide the least enhancement to the historic setting. The historic zone would be confined to the NHL. Visitors would rely on interpretive displays, brochures and viewing the signature to experience Clark's visit.

This alternative would provide the greatest enhancement to access for people with disabilities. In addition to new trails throughout the site, the new facility would provide access to wide array of indoor and outdoor activities and access to Clark's signature. People with disabilities would not have to rely on a replica to view the signature.

Impacts from maintaining a visual corridor between the interchange and the NHL would be the same as Alternative B.

The presence of the existing visitor center near the NHL would be the same as Alternative C.

Impacts from limiting vehicle travel would be the same as Alternative B.

Impacts from adjacent private lands would be the same as Alternative B.

Opportunities to the general hunting public would be most limited under this alternative. The largest acreage would be closed to shooting. Deer and bird hunting opportunities would be lost on

about 270 acres. The remaining 200 acres would be restricted to shotguns and archery. This would displace all deer hunters using rifles. Upland game bird hunting opportunities would continue to be available, but over a smaller area than provided for in the other alternatives. Hunting opportunities would improve for people with disabilities because of additional trails.

Impacts to fishing opportunities would be the same as Alternative B.

This alternative would provide the best opportunity for large corporate partnerships, but would likely decrease local support because of the impacts to the local setting and way of life.

ECONOMIC IMPACTS

Recreation

Under Alternative D, BLM would construct and operate a major visitor center which would remain open year-long. Facilities for overnight camping would also be available. New construction costs are estimated to total \$20 million and annual operating expenditures are estimated to be \$2 million. With this level of development, current recreation trends, and year-round visitation opportunities, it is estimated that visitation could reach as high as 500,000 visitors annually. This is significantly higher than all other alternatives.

This level of development is comparable to development of the BLM's Oregon Trail Interpretive Center in Baker City, Oregon. That facility cost

approximately \$10 million. The Oregon Trail Center, which is situated on the Oregon Trail just off of I-84, was envisioned to ultimately attract 200,000 visitors per year. In its first year of operation, 1992, the center attracted 200,000 visitors within the first seven months. Visitation peaked at 347,000 in 1993 and has since fallen to the 175,000 - 200,000 range. The pattern of visitation is attributed to the significant amount of national and regional marketing efforts that were focused on the Oregon Trail in the early days of operation to commemorate the Oregon Trail. The current level of visitation is expected to continue and to rise gradually (Dave Hunsaker, Park Manager Oregon Trail Interpretive Center, personal communication 12/95).

Adding an interpretive center at Pompeys Pillar would likely create a similar pattern of visitation in the early years of operation. Visitation may peak around 500,000, due to the likelihood that construction would be completed within the next few years and that Lewis and Clark Expedition bicentennial activities will be at its highest. After the first few years, visitation would likely decline and level off.

Assuming annual visitation of 500,000 and that visitation remains split at about 25 percent Montana residents and 75 percent out-of-state residents, visitation could contribute about \$6.5 million and 229 jobs throughout the state's economy. With this level of development, as for Alternative C, the potential exists to extend the amount of time visitors spend at the site. For non-resident tourists traveling through the

state this could mean an additional night's stay in Montana, especially with the addition of overnight camping facilities; this would increase the economic impact potentially contributed by recreation development at Pompeys Pillar.

With the addition of a major destination visitors center, the emphasis would be on a developed recreation setting with historic interpretation offered by the visitor's center and Clark's signature. Wildlife viewing opportunities would increase, but hunting opportunities would decline. The impact to deer and waterfowl hunters would be relatively minor since other hunting opportunities are available nearby. The impact to upland game bird hunters would be relatively greater due to the decline in agricultural land which reduces the opportunities for upland game bird hunting close to Billings.

Neighboring landowners would experience some negative impacts from increased traffic flow to the site especially since the facility would be open year-round. However, opportunities would exist for commercial development of adjacent or nearby private lands to capture additional business from Pompeys Pillar visitors and this would be an offsetting benefit for some landowners.

Agriculture

About 50 acres total would be available for farming under this alternative, one quarter the level that is currently available. Assuming 12 percent of this would be used for standing crops, only

44 acres would be available for harvest. It is estimated that total value of production of crops grown on 44 acres would be about \$11,800, assuming that crops are grown in the same acreage proportions as under current conditions (see Table 3). Note that these estimates do not include cost of production.

This is substantially less acreage than currently available at the site. The decline in acreage available (about 150 acres less) represents 10 percent of the current farmer's entire operation. The actual loss to the current farmer would depend on the mix of crops grown, ability to lower production costs, and whether other acreage can be obtained to compensate for acreage reduction at the site.

Increased visitation may increase some problems the current farmer has experienced with vehicles. With well-maintained physical barriers (eg. fences and gates) and proper signing indicating that visitors do not have access to farming areas, these problems should be alleviated.

IMPACTS TO WILDLIFE

Impacts to wildlife would be about the same as Alternative B except that more acreage would be used for facility development and increases in nongame wildlife species would be less.

Species preferring shortgrass prairie habitat would benefit, while wildlife preferring cereal grain forage and heavy dense cover would decline or be displaced.

Pasture dedicated to the display of native ungulates such as bison and elk would reduce habitat for animal species preferring heavy and dense cover. Forage for these animals would also decline substantially.

Displacement of wildlife from facility development and the presence of visitors would be the greatest under this alternative. Wildlife species sensitive to human presence would relocate to adjacent habitats. This would likely result in some loss of individual animals, but would not adversely affect the populations as a whole in the region.

The impacts of bank stabilization along the Yellowstone River would be the same as under Alternative B.

Impacts to wildlife from increased visitation at facilities and trails would be the same as Alternative B.

The impacts of bank stabilization along the Yellowstone River would be the same as under Alternative B.

Impacts from fisheries habitat improvements would be the same as under Alternative B.

Impacts from wetland habitat improvements would be the same as under Alternative B.

IMPACTS TO LANDS AND REALTY

Same as Alternative B.

IMPACTS TO MINERAL DEVELOPEMENT

Same as Alternative B.

IMPACTS TO VISUAL RESOURCES

Same as Alternative B.

IMPACTS TO PRIME FARMLAND

Impacts would be the same as under Alternative B.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once established, facilities and trails are likely to be maintained into the foreseeable future. The farmland, prime farmland and small amount of vegetation displaced by facilities and trails would be an irretrievable loss.

ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Construction of facilities and trails would adversely affect soils and vegetation. These impacts could not be avoided, but would be minimized through proper construction techniques. Facilities and trails would concentrate public use and likely result in increased trash, vandalism and human waste. The effects could be reduced but not totally eliminated through effective visitor administration.

CONCLUSION

There would be no significant cumulative impacts under Alternative D.

Pompeys Pillar would continue to offer Montana visitors an additional recreation opportunity. Facilities would meet the needs of visitors. The farmland displaced by facilities, trails and the historic setting would not be sufficient to significantly affect agriculture in the region.

Chapter 5 - Consultation and Coordination

Introduction

The Pompeys Pillar EA/Amendment was prepared by an interdisciplinary team of specialists from the Billings Resource Area, Miles City District Office and the Montana State Office. Reviews for adequacy were provided by district, state and Washington office staffs.

Consultation, coordination and public involvement have occurred throughout the process through scoping meetings, planning meetings, individual contacts, newspaper releases and *Federal Register* notices.

Public Participation

In January of 1993, a three day planning workshop was held in Billings. A diverse group of agencies and individuals participated. Appendix 9 contains a complete list of participants. Concepts developed at the workshop were used to develop alternatives for this EA/Amendment.

A Federal Register notice was published on April 6, 1995, informing the public of the notice of intent to amend the Billings RMP to consider designating Pompeys Pillar as an ACEC. Several news releases were published in local papers.

Public scoping meetings were held in Huntley and Billings on October 5, 1995. A news release was published in local papers to notify the public of these meetings. Seventeen individuals attended the Hysham meeting, while three attended the meeting in Billings. The meetings were held to gather additional public input prior to initiating the EA/Amendment.

Consistency

The Montana Governor's Clearinghouse has received a copy of this document for review to assure consistency with the state's plans.

Consultation

The following agencies, organizations and individuals were consulted during the preparation of this document:

Pompys Pillar Association

Montana Department of Fish, Wildlife and Parks: Region 5

U.S. Fish and Wildlife Service: Ecological Services, Helena and Billings, informal consultation

Magic City Flyfishers Chapter of Trout Unlimited

Pheasants Forever, Yellowstone Chapter.

County Commissioners, Yellowstone County.

Yellowstone River Parks Association.

Consultation Concurrent With Public Comment Period

Coordination with Native American tribes is currently in progress.

Informal consultation with U.S. Fish and Wildlife Service is in progress.

List of Preparers

David Squires: Team Leader/Outdoor Recreation Planner, Miles City District Office, B.S. Wildlife and Range Management, Texas Tech University, BLM 17 years.

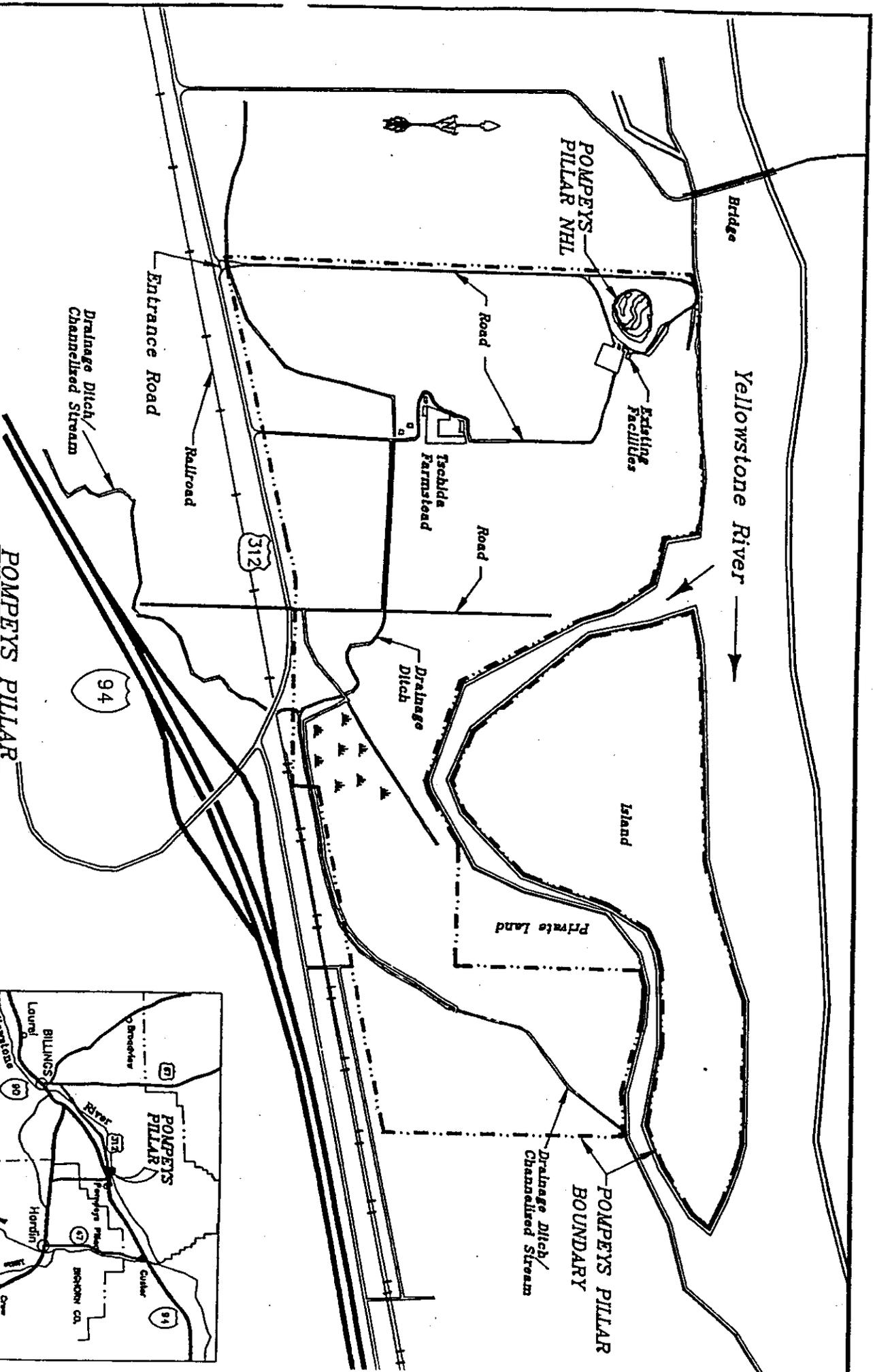
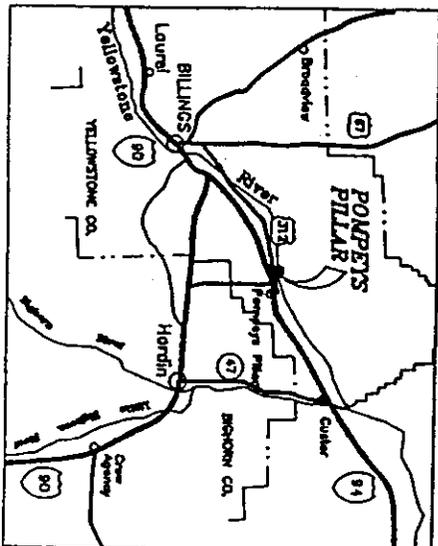
Michael Kyte: Archaeologist, Billings Resource Area, M.A. Eastern New Mexico University, BLM 4 years.

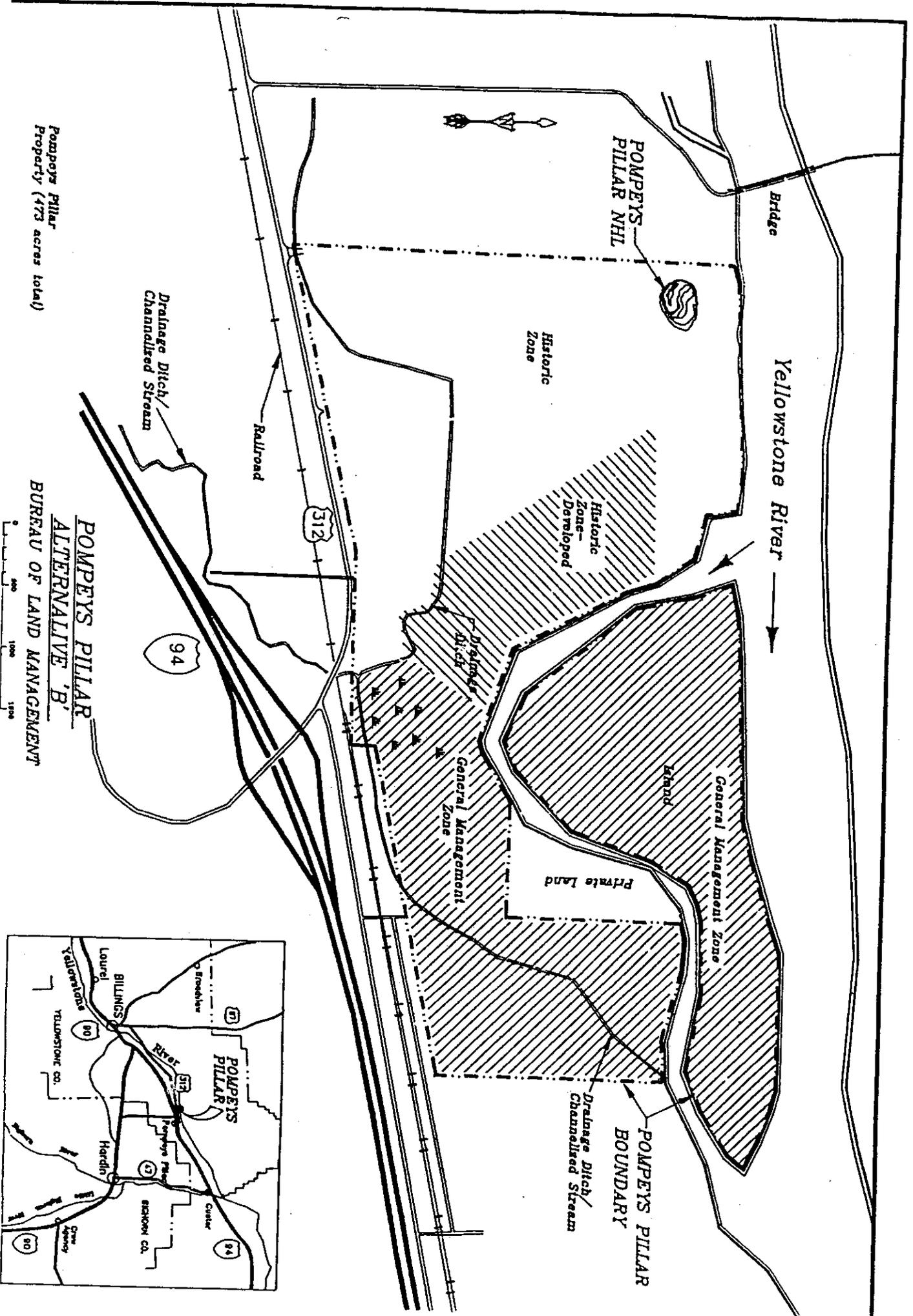
Jay Parks: Wildlife Biologist, Billings Resource Area, B.S. Fish and Wildlife Management, Montana State University, BLM 17 years.

Wendy Favinger: Economist, Montana State Office, B.A./M.A. Economics, University of Nevada-Reno, BLM 6 years.

Pompeys Pillar
Property (473 acres total)

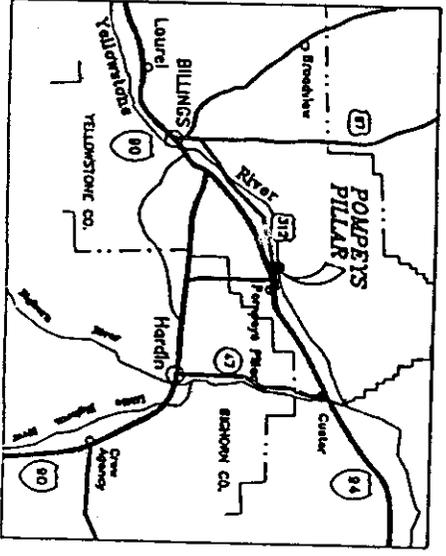
**POMPEYS PILLAR
ALTERNATIVE 'A'**
BUREAU OF LAND MANAGEMENT

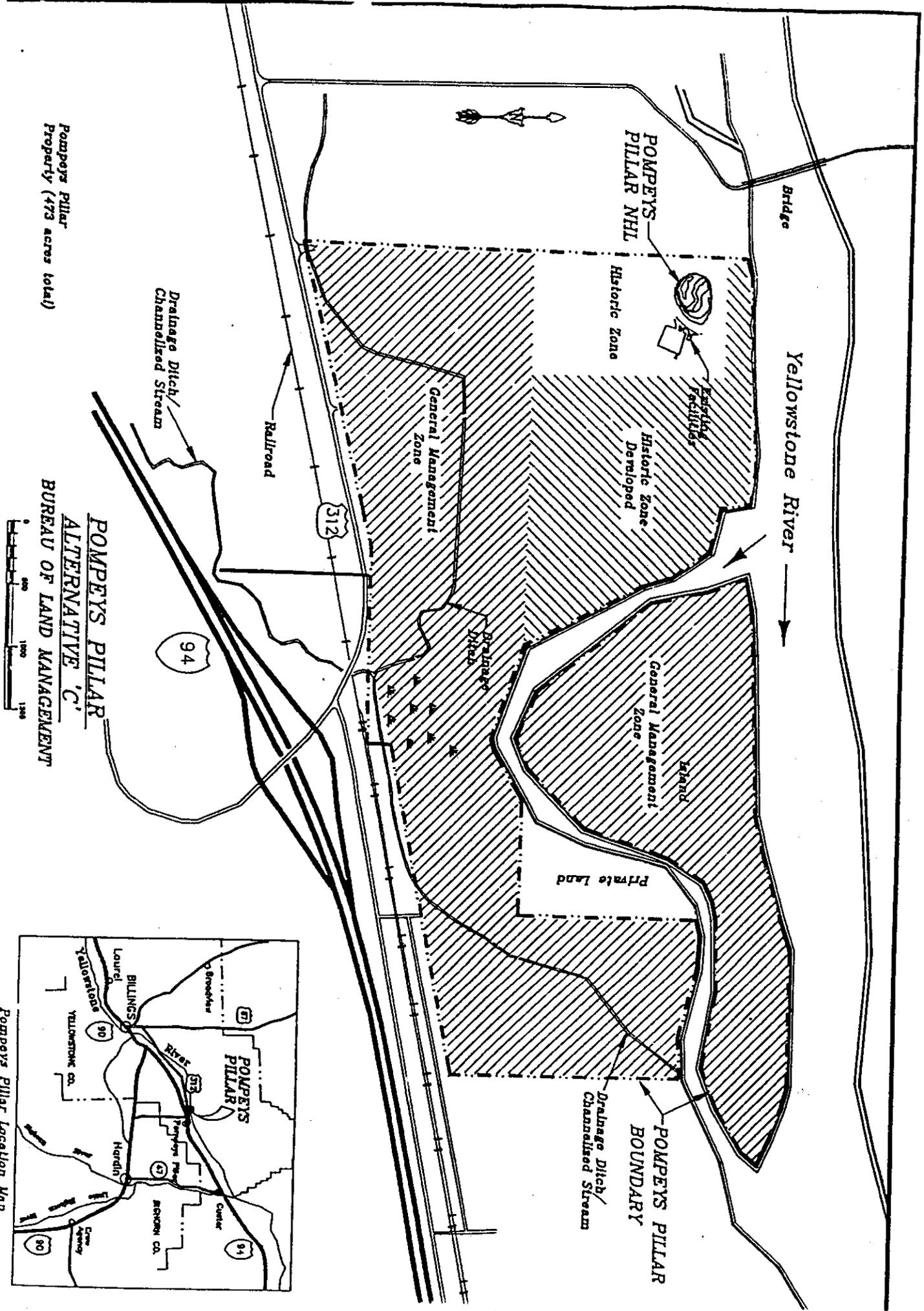




Pompeys Pillar
Property (173 acres total)

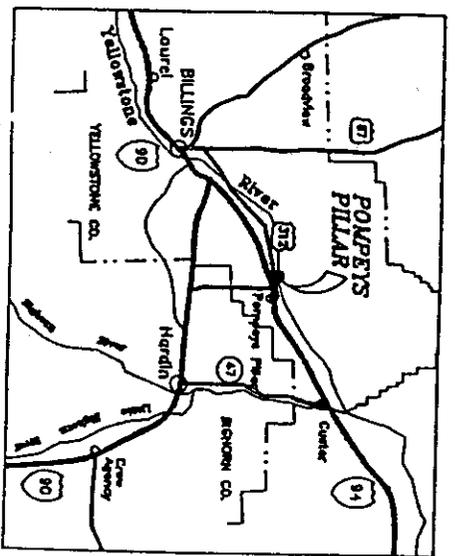
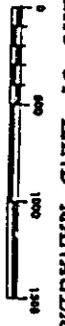
**POMPEYS PILLAR
ALTERNATIVE 'B'
BUREAU OF LAND MANAGEMENT**



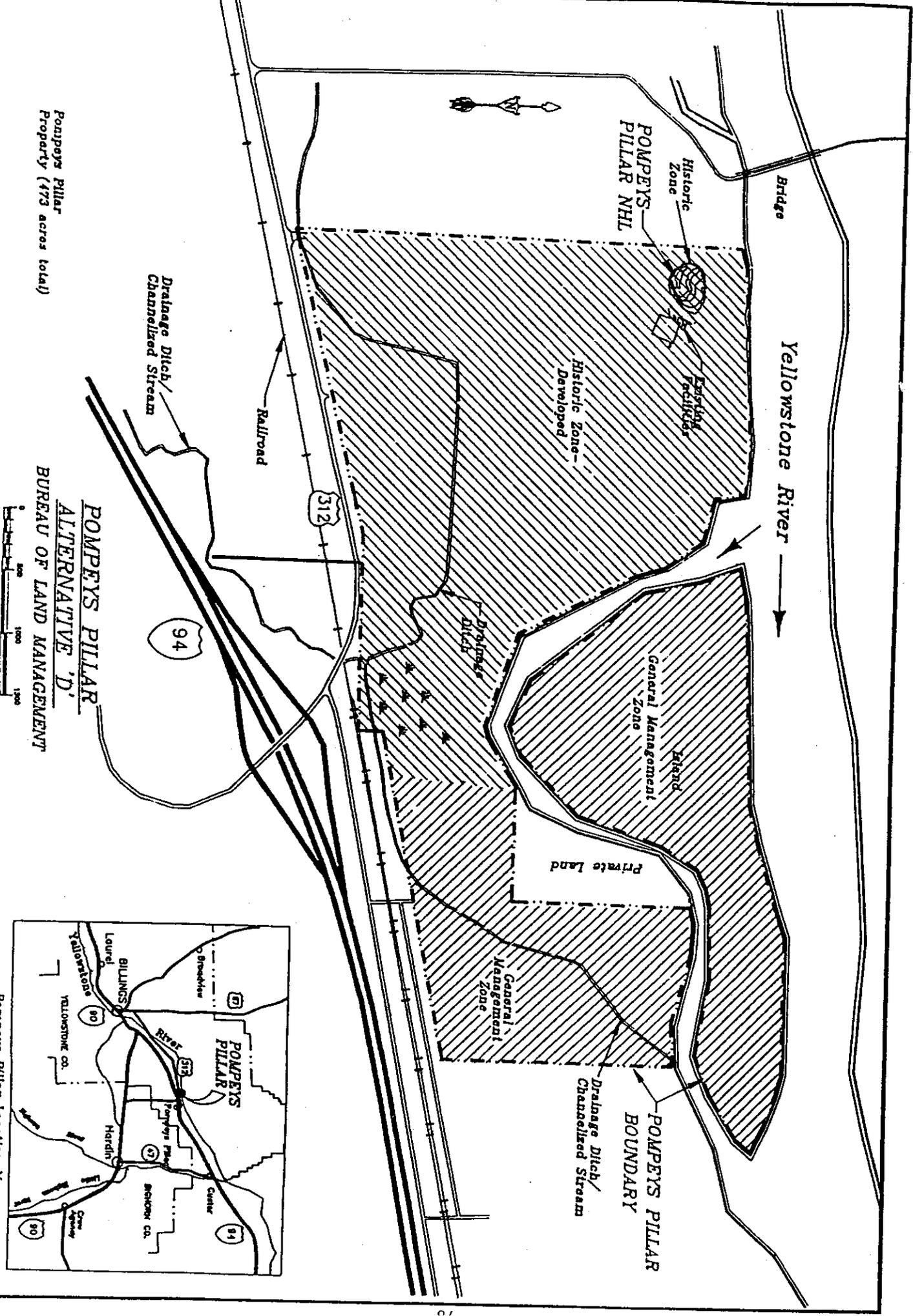


Pompeys Pillar
Property (473 acres total)

POMPEYS PILLAR
ALTERNATIVE 'C'
BUREAU OF LAND MANAGEMENT

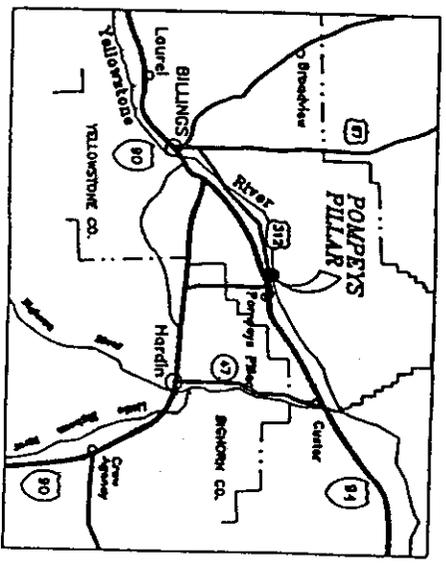


Pompeys Pillar Location Map



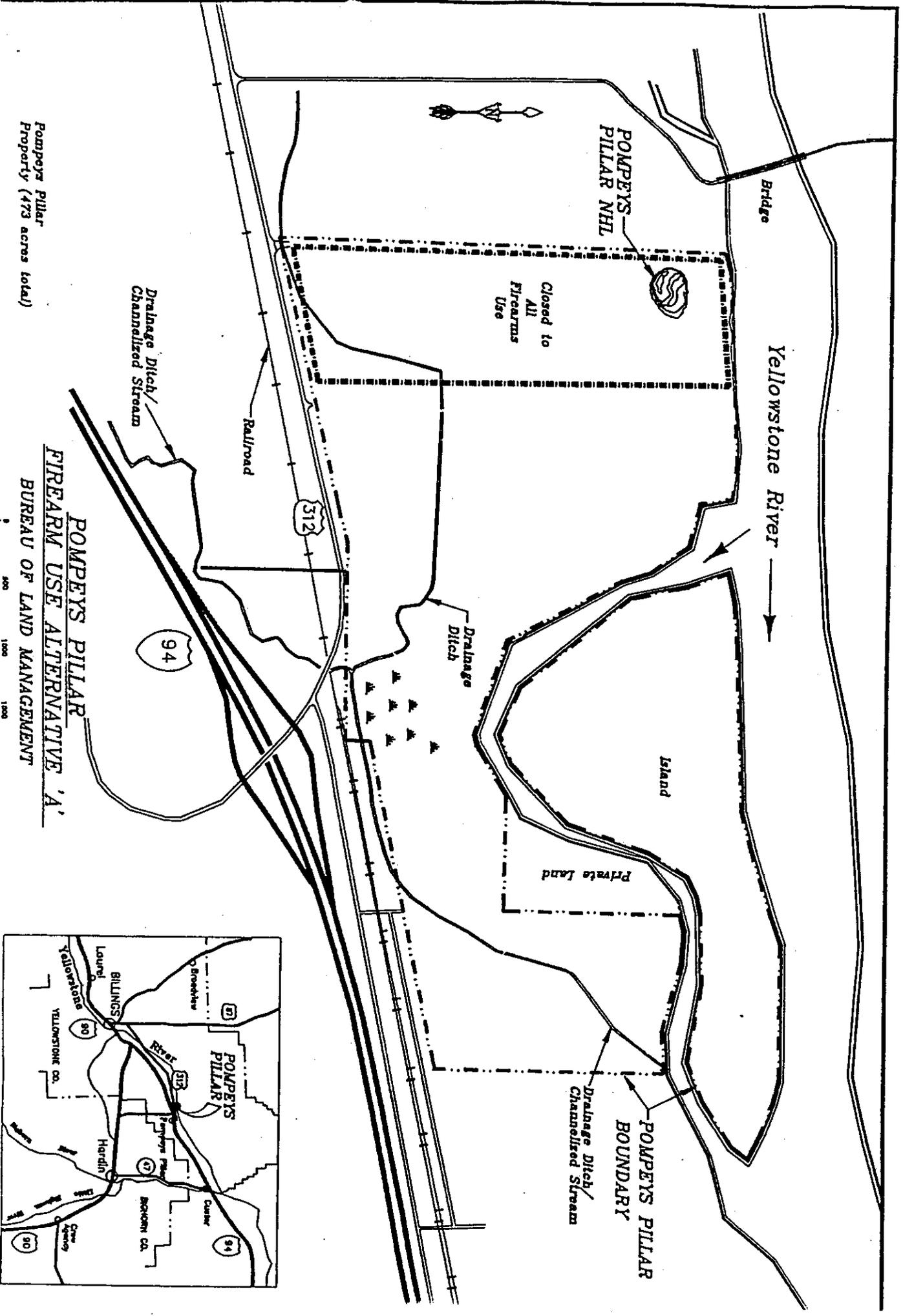
Pompeys Pillar
Property (473 acres total)

POMPEYS PILLAR
ALTERNATIVE 'D'
BUREAU OF LAND MANAGEMENT



Pompeys Pillar Location Map

Map 5



POMPPEYS PILLAR NHL

Bridge

Yellowstone River

Closed to All Firearms Use

Island

Private Land

Drainage Ditch

Railroad

312

Drainage Ditch/Channelized Stream

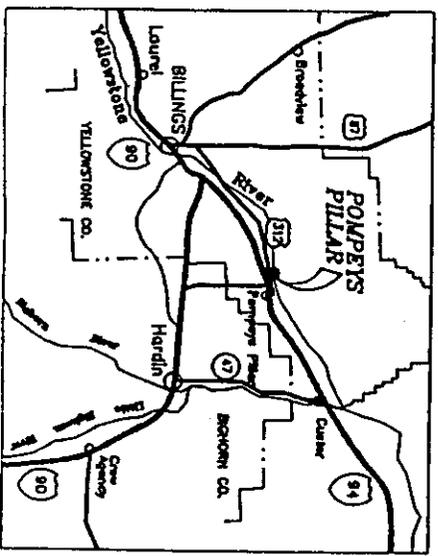
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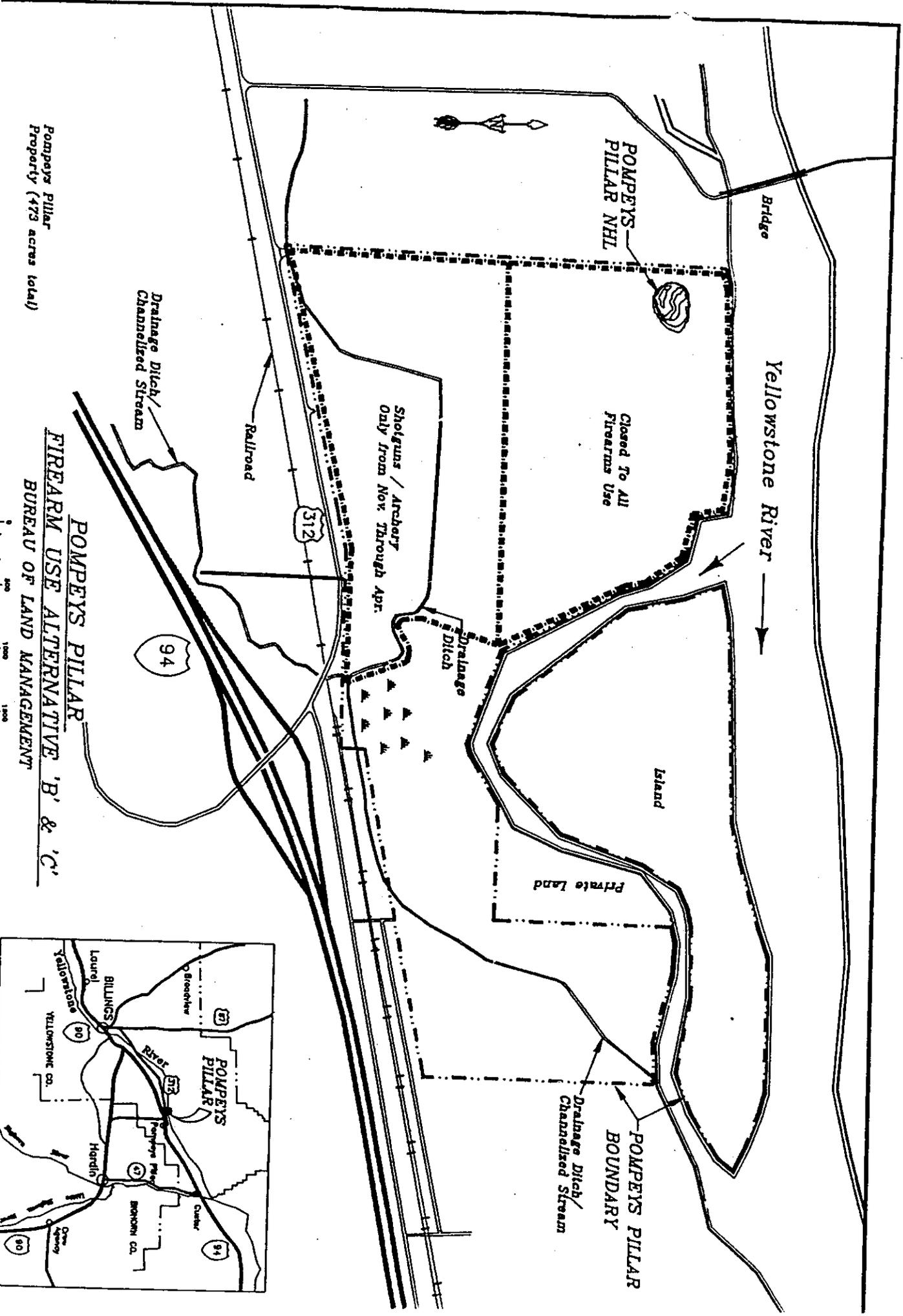
POMPPEYS PILLAR BOUNDARY

Drainage Ditch/Channelized Stream

Pomppeys Pillar Property (473 acres total)

POMPPEYS PILLAR FIREARM USE ALTERNATIVE 'A' BUREAU OF LAND MANAGEMENT





Pompeys Pillar Property (473 acres total)

POMPEYS PILLAR FIREARM USE ALTERNATIVE 'B' & 'C'
BUREAU OF LAND MANAGEMENT

Pompeys Pillar
Property (173 acres total)

POMPEYS PILLAR FIREARM USE ALTERNATIVE 'D' BUREAU OF LAND MANAGEMENT

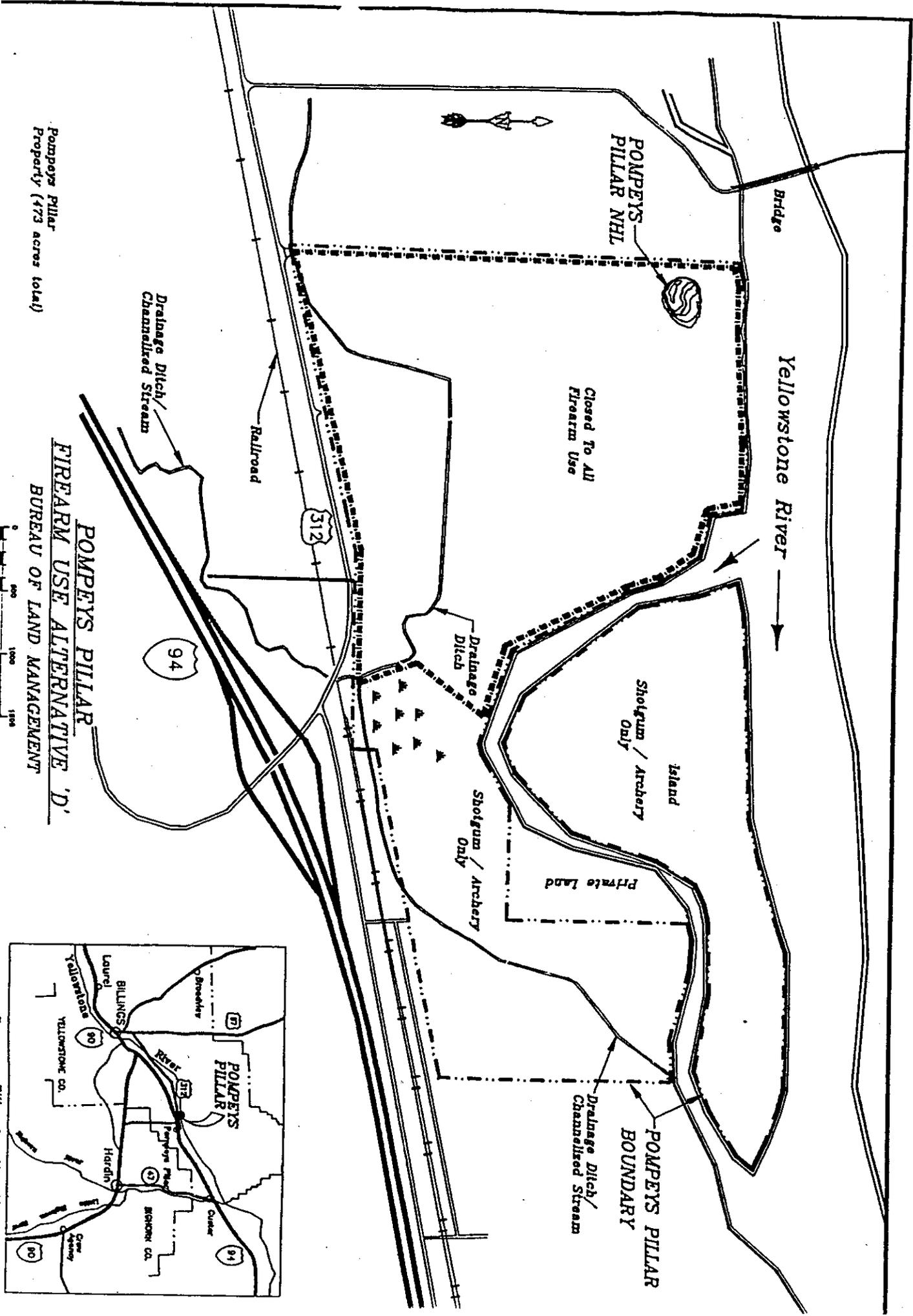
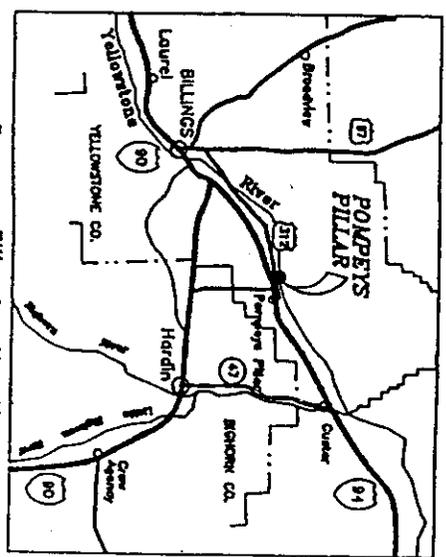


Table 2

POMPEYS PILLAR FARMING OPERATION

Alternative C

Total acres available for farming = 150

This is about 76% of current farming level

Crop	Acres*	Yield per Acre	Unit Value	Total Value
Alfalfa Hay	49	4 tons	\$71.00	\$13,915
Corn	29	134 bu	\$2.65	\$10,439
Barley	28	84 bu	\$2.30	\$5,388
Oats	6	26 bu	\$1.30	\$204
Wheat	20	73 bu	\$3.60	\$5,348
Sugar Beets	0	21.4 bu	\$43.60	\$0
SUBTOTAL	133			
<u>Standing Crops**</u>	<u>17</u>			
TOTAL	150			\$35,294

* Acreage available for farming is allocated in the same proportion as acres farmed in 1994.

** About 12% of total farmland farmed is left standing for wildlife.

Figures stated are 1994.

Source: MT Agricultural Statistics 1995 (for yields and unit values)

Table 3

POMPEYS PILLAR FARMING OPERATION

Alternative D

Total acres available for farming = 50

This is about 25% of current farming level

Crop	Acres*	Yield per Acre	Unit Value	Total Value
Alfalfa Hay	16	4 tons	\$71.00	\$4,638
Corn	10	134 bu	\$2.65	\$3,480
Barley	9	84 bu	\$2.30	\$1,796
Oats	2	26 bu	\$1.30	\$68
Wheat	7	73 bu	\$3.60	\$1,783
Sugar Beets	0	21.4 bu	\$43.60	\$0
SUBTOTAL	44			
<u>Standing Crops**</u>	<u>6</u>			
TOTAL	50			\$11,765

* Acreage available for farming is allocated in the same proportion as acres farmed in 1994.

** About 12% of total farmland farmed is left standing for wildlife.

Figures stated are 1994.

Source: MT Agricultural Statistics 1995 (for yields and unit values)

APPENDIX 1 - ACEC Evaluation

POMPEYS PILLAR: Nominated for unique cultural values

Relevance Criteria: This area meets relevance criterion 1 in that it contains significant historical and cultural values. Pompeys Pillar is the site of Captain William Clark's 1806 signature and as such is significant as a physical reminder of the nineteenth century westward movement of Euroamerican culture, and of the acquisition of the Louisiana Purchase. The Pillar served as an important landmark and register of travelers during the exploration and fur trade period, and during the subsequent phases of expansion into the area by EuroAmericans. Pompeys Pillar also meets criterion 2 as a significant fish and wildlife resource, and it meets criterion 3 as a significant natural system. The Pompeys Pillar property harbors a functioning ecosystem similar to that observed by the Clark party in the early nineteenth century. A community of wildlife species typical of the early 1800s frequent the area, including bald eagles, a threatened species.

In 1966 Pompeys Pillar was officially designated a National Historic Landmark, primarily because of the significance of the Clark signature panel. The boundaries designated include six acres above the 2890 foot contour level. In 1983 the same six acre site was listed on the National Register of Historic Places as a significant cultural property.

The Pompeys Pillar landform is a small sandstone mesa on the south side of the Yellowstone River in eastern Yellowstone County, Montana. Downcutting of the Yellowstone channel in the distant past separated the Pillar from the sandstone bluffs on the north side of the river. The visually remarkable shape of the landform, as well as its unique position as a sandstone outcrop on the south side of the river, the only one for several miles in either direction made Pompeys Pillar an outstanding landmark in the Yellowstone Valley. However, in addition, the Pillar lies at a well known ford of the Yellowstone. On the north side of the river opposite the Pillar the high sandstone rims are broken to allow Pompeys Pillar Creek entry into the Yellowstone. To the south is the mouth of the north-draining Fly Creek Valley. The ford and these natural passages must have been used for millenia by bison herds and hunters to access the Bull Mountains and Musselshell Valley and lands beyond to the north, and the Big Horn and Little Big Horn Valleys and the country to the south. The position of Pompeys Pillar at this strategic crossroads along north-south and east-west travel corridors virtually guaranteed it an important role in the prehistory and history of the middle Yellowstone Valley.

Past use of the Pillar as a landmark is best documented by the hundreds of historic and recent signatures and dates spread across several extensive panels at accessible locations. In early historic times the Pillar functioned in much the same way as other "registers of the desert" such as Independence Rock on the Oregon Trail, or El Morro

in northern New Mexico. Growing panels of names and dates prompted subsequent travelers to add their own marks. Prior to the very late nineteenth century, travel by Euroamericans through the Yellowstone Valley would have been difficult and dangerous. Memorializing the accomplishment appears to have been the major motive for most of the historic writing. With Euroamericans control and settlement of the country the panels on the Pillar continued to attract signatures. Most of the writings visible today date to early 20th century.

The most outstanding historic inscription on the Pillar is that of Captain William Clark, dated July 25, 1806. It has been reinscribed at least once and is protected with a bronze frame and covered with a heavy glass pane. Clark carved his name and the date during his return down the Yellowstone from his epic journey to the Pacific. His stay at the Pillar was brief but long enough to christen the landform "Pompy's Tower" for Baptiste "Pomp" Charbonneau, Sacajawea's infant son. Subsequent inscriptions date to incursions into or through the area by miners and other immigrants to western Montana, military and militia groups, fur and hide hunters, steamboatmen, early cattlemen, and perhaps such distinguished travelers as Fater Pierre Jean DeSmet. A number of signatures which were left by literate 19th century travelers have not yet been found and may unfortunately have eroded away. Early 20th century stockranchers and homesteaders left their marks among the older names and dates. These were subsequently joined by the names of tourists heading for Yellowstone National Park and local high school seniors and weekend picnickers.

Historic and recent EuroAmerican inscriptions on rocks in western North America frequently occur on or near aboriginal rock art panels, just as Native American rock art most often appears to be concentrated on certain panels or in particular locales, prompted in part at least by the presence of earlier art. Pompeys Pillar is no exception. In describing his inscription on the rock William Clark noted that Native American rock art was already present. During an intensive examination in the 1960s a number of aboriginal motifs were identified and recorded, including incised and painted shields and shield bearing warriors, and red painted figures. This art is overwhelmed and overwritten however by the later Euroamerican writing.

Evidence for long term use of the Pillar by Native Americans is ubiquitous in the vicinity. The burned rock, flaked stone and bone debris left from probably thousands of years of small, short-term occupations are visible in the flats to the east and south of the rock. Crow ethnographies include numerous references to the Pillar as a landmark and perhaps as a locus for religious activities such as fasting. It is also reputedly a customary burial place for 19th century Crow people. However, the surrounding land has been intensively cultivated for more than half a century. Testing in surrounding areas has failed to locate intact deposits and all evidence so far found suggests that recent historical and modern agricultural activities have almost completely disrupted earlier archaeological patterning, hopelessly mixing deposits that might be useful for reconstructing the prehistory and history of Native Americans in the area. A significant

early historic Euroamerican presence should also be visible archaeologically in the area around the Pillar if it were not for recent farming and relic collecting. Archaeological investigation will continue in areas surrounding the landmark, but based on current information, only the Pillar itself retains the integrity necessary to inform on history and prehistory.

The Pompeys Pillar property is included in lands watered by the Huntley Irrigation Project. The development of this large-scale, communal irrigation system to deliver Yellowstone River water to farms in this part of the valley allowed the intensive agricultural settlement pattern present today. The rural character of this part of the Yellowstone Valley is largely a result of the Huntley Project. The Huntley main canal is considered eligible for the National Register of Historic Places, and by extension, the system of laterals and drains on the Pillar property are also a significant historic resource.

The Pompeys Pillar property serves as habitat to a significant fish and wildlife resource. The community of wildlife species present on the property are typical of the riverine environment of the middle Yellowstone Valley in the early nineteenth century, at the time of the visit of the Clark party. Among the more notable species known to be present, short term concentrations of up to 100 bald eagles have been observed at the Pillar in late winter. The presence of an active bald eagle nest on the property for two consecutive years in the recent past suggests that a healthy habitat exists here for this threatened species.

The cottonwood gallery forest on the property is a functioning riparian/ecosystem typical of the middle Yellowstone Valley as William Clark would have observed it. Other than grazing prior to BLM's acquisition of the property and the lack of periodic natural wildfire in modern times, the riparian/wetland zone has not been disturbed by Euroamerican settlement of the region.

Importance Criteria: This area meets importance criterion 1. It includes information that is of significance nationally. The William Clark signature panel remains the only on-site physical evidence known for the Lewis and Clark expedition. Future recordation and analysis of the writing on the rock can be expected to reveal additional evidence of early EuroAmerican exploration of the west. Computer aided enhancement of the marks on the Pillar may allow reconstruction of EuroAmerican and Native American motifs which cannot be discerned otherwise but which can provide important information on regional prehistory and history.

The area also meet importance criterion 2. The signatures and rock art are extremely fragile and are especially vulnerable to erosion. Comparison of the panels today with photographs made only thirty years ago show significant deterioration. Modern graffiti is a secondary threat to the historic and prehistoric motifs. Despite a seasonal presence by BLM staff and routine patrol through the rest of the year some people are

still unable to resist adding their own names and dates to those on the rock.

Pompeys Pillar also meets importance criterion 3. The area warrants protection in order to satisfy national priority concerns. It is one of the BLM's major recreation initiatives. The site has become an important destination for visitors with a wide range of knowledge of, and interest in the history of North America and the United States.

Summary: Pompeys Pillar meets both the relevance and importance criteria. Throughout the millenia of Native American control of the region Pompeys Pillar commanded an important natural ford of the Yellowstone River. It certainly functioned as a campsite, and would logically have served as an important landmark and rendezvous point. The site is reputed to have had religious associations for historic Native Americans, and it may have functioned as a burial site. Euroamerican explorers and travelers, including William Clark of the Lewis and Clark expedition, carved their names and the dates of their visits into the soft sandstone of the Pillar, although many are now faded beyond legibility. The area includes six public surface acres in size in T.3 N., R.30 E., section 21. Pompeys Pillar became a National Historic Landmark on July 10, 1966 and the cultural resource site is listed on the National Register of Historic Places.

BLM management objectives should involve the long-term conservation and recreational use of this site for future generations to study and enjoy. The area is an important cultural and historic landmark, and it harbors a functioning riparian ecosystem typical of that observed by Clark in the early nineteenth century. Pompeys Pillar is recommended for designation as an area of critical environmental concern.

APPENDIX 2 - Riparian Proper Functioning Condition Definition

Proper Functioning Condition - Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. **The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation.**

Functional-At Risk - Riparian-wetland areas that are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

Nonfunctional - Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, etc., as listed above. The absence of certain physical attributes such as a floodplain where one should be are indicators of nonfunctioning conditions.

Next, the definition of PFC must be analyzed. One way to do this is by breaking the definition down as follows:

"Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to:

- 1) dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality;
- 2) filter sediment, capture bedload, and aid in floodplain development;
- 3) improve flood-water retention and ground-water recharge;
- 4) develop root masses that stabilize streambanks against cutting action;
- 5) develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses;
- 6) support greater biodiversity."

Riparian areas are functioning properly when there is adequate structure present to provide the listed benefits applicable to a particular area. The analysis must be based on the riparian area's capability and potential. If, for example, the system does not have the potential to support fish habitat, that criteria would not be used in the assessment.

Reference: RIPARIAN AREA MANAGEMENT, Process for Assessing Proper Functioning Condition, Technical Reference 1737-9, USDI, BLM, Service Center, 60 pages, September, 1993.

APPENDIX 3 - Cultural Resource Use Categories

BLM MANUAL 8111, MSO SUPPLEMENT 9/19/88

CULTURAL RESOURCE USE CATEGORIES . The purpose of evaluation is to recommend appropriate use(s) for cultural resources. Designated uses are the culmination of the inventory and evaluation process and the starting point for planning and decisionmaking. Properly qualified cultural resource specialists analyze inventory records, apply professional judgement to identify characteristics that contribute to possible uses for recorded cultural resources (considered individually or in collective groupings of similar resources), and recommend appropriate use(s) for each resource or grouping. Use recommendations should be consistent with the state historic preservation plan prepared by the SHPO. All public land cultural resources known or anticipated to occur within a BLM administrative unit are recommended for assignment to one or more of the six BLM cultural resource use categories. Professional recommendations and managers' assignments may be changed as new data become available.

A. Scientific Use. This category applies to any cultural property determined to be suitable for consideration as the subject of scientific or historical study utilizing currently available research techniques, including study that would result in its physical alteration. Inclusion in this category signifies that the property need not be conserved in the face of an appropriate research or data recovery (mitigation) proposal.

B. Conservation for Future Use. This category is reserved for any unusual cultural resource that, because of scarcity, a research potential that surpasses the current state of the art, singular historic importance, cultural importance, or architectural interest, or comparable reasons, is not currently appropriate for consideration as the subject of scientific or historical study that would result in its physical alteration. A cultural property or location included in this category is considered worthy of segregation from all other land or resource uses, including cultural resource uses, that would threaten the maintenance of its present condition or setting, as pertinent, and it will remain in this use category until specified provisions are met in the future.

C. Management Use. This category may be applied to any cultural property considered most useful for controlled experimental study that would result in its physical alteration, to be conducted by the BLM or other entities concerned with the management of cultural properties. Expenditure of cultural properties or data may be justified for purpose of obtaining specific information that would ultimately aid in the management of other cultural properties. Experimental study may be aimed toward a better understanding of kinds and rates of natural or human-caused deterioration, effectiveness of protection measures, and similar lines of inquiry.

D. Socio-Cultural Use. This category is to be applied to any cultural resource that is perceived by a specified social and/or cultural group as having attributes that contribute to maintaining the heritage or existence of that group. This use category signifies that the cultural resource is to be managed in a way that takes those attributes into account, as applicable.

E. Public Use. This category may be applied to any cultural property found to be appropriate for consideration as an interpretive exhibit in place, a Subject of supervised participation in scientific or historical study, or related educational and recreational uses by members of the general public.

F. Discharged Use. Assignment to this category means either that a cultural resource that was previously qualified for assignment to any of the categories defined above no longer possesses the qualifying characteristics for that use or for assignment to an alternative use; or that a cultural property's scientific use potential was so slight that it was exhausted at the time the property was recorded, and no alternative is deemed appropriate. Where a cultural property is involved, use allocation to discharged use also means that records pertaining to the property represent its only remaining importance, and that its location no longer presents a management constraint for competing land uses. Considerations include the following:

1. Applies to Cultural Property or Traditional Lifeway Value.

Assigned use of either a cultural property or a traditional lifeway value may be discharged when appropriate, but in the case of a traditional lifeway value assigned to socio-cultural use, it would be uncommon for ascribed importance (for example, sacredness) to be lost.

2. Applies When Qualifying Characteristics Absent. A cultural property such as a shallow rockshelter could be fully excavated, thereby realizing its scientific use potential, or it could be completely looted, destroying its potential. Knowledge that it once contained archaeological deposits is still important, and it would continue to be represented in inventory records.

3. Applies to Immediate Realization of Potential. A cultural property with limited scientific use potential and no other use potential, such as a small surface lithic scatter, could be sufficiently recorded on discovery so that no further field study would be needed.

4. Applies Only to Recorded Properties. Field inspection and recording of individual cultural properties must precede their allocation to discharged use. Unrecorded cultural properties may not be allocated to discharged use as a class (i.e., "written off") in advance of discovery. Classes of properties subject to discharge upon recording and criteria for identifying suitable individual properties may be established in a CRMP.

C. Compatible Uses. Cultural resources may be determined to have more than one appropriate use. The following table summarizes ways that use categories might be found to fit with one another. Please note that there may not be mutual compatibility among all the categories appearing on a given line in the second column. For example, category D (first column) may be compatible with A, B, and E (second column), but A and B are not compatible.

Category	Potentially Compatible Category
A Scientific Use	C; D; E
B Conservation for Future Use	D; E
C Management Use	A; E
D Socio-Cultural Use <u>1/</u>	A; B; E
E Public Use	A; B; C; D
F Discharged Use	E <u>2/</u>

1/ Socio-Cultural Use is the category most likely to be applied to a traditional lifeway value without a concrete (cultural property) referent. When this is the case, there would probably not be any other potential cultural resource uses, compatible or not.

2/ Although a cultural property may have no remaining scientific potential, it could be found suitable for interpretive use. For example, a property such as described in F2 above might lend itself to interpretation through signs explaining the results of its authorized or unauthorized use. Also, a property may have commemorative value for having yielded important information, even though it has no remaining scientific potential. (Compare 36 CFR 60.4 criterion "d".)

APPENDIX 4 - Bird List

Possible Bird Species of Pompeys Pillar*

American Coot	Great Horned Owl	Field Sparrow
Sandhill Crane	Long-eared Owl	Vesper Sparrow
Semipalmated Plover	Northern Saw-whet Owl	Lark Sparrow
Killdeer	Common Nighthawk	Savannah Sparrow
American Avocet	White-throated Swift	Grasshopper Sparrow
Greater Yellowlegs	Belted Kingfisher	LeConte's Sparrow
Lesser Yellowlegs	Lewis' Woodpecker	Fox Sparrow
Solitary Sandpiper	Red-headed Woodpecker	Song Sparrow
Willet	Red-naped Sapsucker	Lincoln's Sparrow
Spotted Sandpiper	Downy Woodpecker	Swamp Sparrow
Sanderling	Hairy Woodpecker	White-throated Sparrow
Semipalmated Sandpiper	Blackburnian Warbler	White-crowned Sparrow
Western Sandpiper	Pine Warbler	Harris' Sparrow
Least Sandpiper	Palm Warbler	Dark-eyed Junco
Baird's Sandpiper	Bay-breasted Warbler	Red-winged Blackbird
Pectoral Sandpiper	Blackpoll Warbler	Western Meadowlark
Stilt Sandpiper	Black-and-white Warbler	Yellow-headed Blackbird
Buff-breasted Sandpiper	American Redstart	Rusty Blackbird
Long-billed Dowitcher	Ovenbird	Brewer's Blackbird
Common Snipe	Northern Waterthrush	Common Grackle
Wilson's Phalarope	Connecticut Warbler	Brown-headed Cowbird
Red-necked Phalarope	MacGillivray's Warbler	Northern Oriole
Franklin's Gull	Common Yellowthroat	Rosy Finch
Bonaparte's Gull	Wilson's Warbler	Pine Grosbeak
Ring-billed Gull	Yellow-breasted Chat	Purple Finch
California Gull	Western Tanager	Cassin's Finch
Sabine's Gull	Rose-breasted Grosbeak	House Finch
Common Tern	Black-headed Grosbeak	Red Crossbill
Forster's Tern	Lazuli Bunting	White-winged Crossbill
Black Tern	Indigo Bunting	Pine Siskin
Rock Dove	Rufous-sided Towhee	American Goldfinch
Mourning Dove	American Tree Sparrow	Evening Grosbeak
Black-billed Cuckoo	Chipping Sparrow	House Sparrow
Yellow-billed Cuckoo	Clay-colored Sparrow	Townsend's Warbler
Eastern Screech-Owl	Brewer's Sparrow	

* Source of Information:

The list of bird species was taken from bird observations at Two Moon Park in Billings, MT. Two Moon Park is a natural area along the Yellowstone River with habitat similar to Pompeys Pillar. Due to the farmland near Pompeys Pillar, the species list could possibly be expanded.

This list was compiled by Mr. Bill Roney from observations by himself, Helen Carison, Bebe Fitzgerald, and Norman Schoenthal from 1972 - 1988.

APPENDIX 5 - Fish List

FISH SPECIES OF THE YELLOWSTONE RIVER NEAR POMPEYS PILLAR*

Goldeye	Hiodon alosoides
Common Carp	Cyprinus carpio
Flathead Chub	Platygobio gracilis
Emerald Shiner	Notropis atherinoides**
Western Silvery/Plains Minnow	Hybognathus spp.**
River Carpsucker	Carpoides carpio
Shorthead Redhorse	Moxostoma macrolepidotum
Longnose Sucker	Catostomus catastomus
White Sucker	Catostomus commersoni
Mountain Sucker	Catostomus platyrhynchus
Channel Catfish	Ictalurus punctatus
Stonecat	Noturus flavus
Burbot	Lota lota
Smallmouth Bass	Micropterus dolomieu
Sauger	Stizostedion canadense

Recorded Species-Lesser Abundance

Mountain whitefish	Prosopium williamsoni
Rainbow Trout	Oncorhynchus mykiss
Brown Trout	Salmo trutta
Lake Chub	Couesius plumbeus
Longnose Dace	Rhinichthys cataractae
Yellow Bullhead	Ameiurus natalis
Pumpkinseed	Lepomis gibbosus
Largemouth Bass	Micropterus salmoides
Black Bullhead	Ameiurus melas

Unrecorded Species Possible

Northern pike	Esox lucius
Fathead Minnow	Pimephales promelas
Smallmouth Buffalo	Ictiobus bubalus
Bigmouth Buffalo	Ictiobus cyprinellus
Walleye	Stizostedion vitreum
Freshwater Drum	Aplodinotus grunniens

Species that may have been visitors in the past:

Paddlefish	Polyodon spathula,
Pallid Sturgeon	Scaphirhynchus albus
Shovelnose Sturgeon	Scaphirhynchus platyrhynchus

*Source of Information:

MT Fish, Wildlife, & Parks, Region 5, Billings, MT 1992

**Fed. Category 2, Candidate Species under Endangered Species Act

APPENDIX 6

POMPEYS PILLAR FARMING OPERATION

ACRES OF PRODUCTION

Crop	1995	1994	1993
Alfalfa Hay	64	65	70
Corn	43	39	37
Barley	19	37	68
Oats	8	8	8
Wheat	0	27	0
Sugar Beets	40	0	0
SUBTOTAL	174	176	183
Standing Crops*	23	23	14
TOTAL	197	199	197

* About 12% of total farmland farmed is left standing.

Source: BLM Billings Resource Area 1995

YIELD PER ACRE (IRRIGATED)

Crop	1994	1993	1992
Alfalfa Hay (tons)	4	4	4.5
Corn (bu)	134	113	104
Barley (bu)	84	77	89
Oats (bu)*	26	58	61
Wheat (bu)	73	64.9	71
Sugar Beets (tons)	21.4	22.7	25.1

* Oats are non-irrigated.

Source: MT Agricultural Statistics 1995 (1995 data N/A)

APPENDIX (cont)

VALUE PER UNIT OF PRODUCTION

Crop	1994	1993	1992
Alfalfa Hay (tons)	\$71.00	\$69.50	\$71.50
Corn (bu)	\$2.65	\$2.90	\$2.50
Barley (bu)	\$2.30	\$2.06	\$2.39
Oats (bu)	\$1.30	\$1.41	\$1.23
Wheat (bu)	\$3.60	\$3.50	\$3.42
Sugar Beets (tons)*	--	\$43.60	--

* Sugar beet price not available for 1994 or 1992.

Source: MT Agricultural Statistics 1995 (1995 data N/A)

**TOTAL PRODUCTION VALUE FOR POMPEY'S PILLAR
FARMING OPERATION**

Crop	1995	1994	1993
Alfalfa Hay (tons)	\$18,176	\$18,070	\$22,523
Corn (bu)	\$15,269	\$12,780	\$9,620
Barley (bu)	\$3,671	\$5,869	\$14,464
Oats (bu)	\$270	\$654	\$600
Wheat (bu)	\$0	\$6,133	\$0
Sugar Beets (tons)	\$37,322	\$0	0
TOTAL	\$74,708	\$43,507	\$47,207

NOTE: Due to lag in publication of production values, total production for each year is multiplied by the previous year's production values. Also, sugar beet price for 1993 was used to estimate 1994 total production value.

APPENDIX 7 - Monitoring

Monitoring will be conducted in accordance with Bureau manual procedures. The intensity and scope of monitoring activities is contingent upon funding and staffing.

RIPARIAN:

- 1.) Baseline riparian inventory will be conducted in 1996. Proper Functioning Condition (Health) assessment will be conducted at 5 year intervals. Both methods will be conducted using the Montana Riparian Associations approved methods.
- 2.) Photography Points will be established in 1996 to monitor vegetation trend in the riparian areas.

WILDLIFE:

- 1.) Bald Eagle nesting inventories are conducted annually by the Montana Fish, Wildlife, and Parks.
- 2.) A bird inventory and species list will be compiled continuously as observations are made and recorded at the Pillar.

RECREATION PROGRAM

- 1) Visitor surveys will periodically be conducted to update the existing data base. Surveys can be in the form of questionnaires, visitor rosters and direct contact by employees and volunteers.
- 2) Visitor use will be recorded through visitor rosters, fee envelopes and other methods. The information will be recorded in the Recreation Management Information System data base.
- 3) A photo inventory of all facilities to establish a baseline inventory. Photographs will be periodically retaken to monitor visitor impacts.

CULTURAL RESOURCES

Inscription panels will be monitored through photo points.

APPENDIX 8 - References

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APPENDIX 9 - January, 1993 Workshop Participants

<u>NAME</u>	<u>ORGANIZATION</u>
Ester Bengston	Pompeys Pillar Assn., President
Thelma Juhi	Pompeys Pillar Association
Jim Van Arsdale	Pompeys Pillar Association
Sherman Hubley	Pompeys Pillar Association
Marlene Krum	Pompeys Pillar Association, Treasurer
Wilbur Oblender	Adjacent Landowner
Jim Foley	Yellowstone River Parks Assodation
Dixie Lee Elliott	YRPA & Strategic Plan
Judy Henry	School District #2, Billings
Ramona Stout	Huntley Project School
Christine Pierce	Native American Cultural Ins.-Advisor
Gloria Wester	Welcome Visitors Guide/Custer Country
Dick Williams	National Park Service
Angila Wendel	Senator Max Baucus
Joe Todisco	Billings Independent Living Center
Ray Berntsen	MT Department of Fish, Wildlife & Parks
Ira Juhi	B.P.O.E. Americanism Comm.
John Willard	Clark Trails Heritage Foundation
Bill McIlvain	BLM, Billings Resource Area (BRA)
Jay Parks	BLM, BRA
Dick Kodeski	BLM, BRA
John F. Taylor	BLM, BRA
David Squires	BLM, Miles City District Office (MCDO)
Marilyn Krause	BLM, MCDO
Charles Frost	BLM, MCDO
Chan Biggs	BLM, Lewistown District Office
Gary Leppart	BLM, Montana State Office (MSO)
Carol Schriver	BLM, MSO
Dan Lechefskey	BLM, MSO
Jim Norris	BLM, MSO Engineer/Access Coordinator
Daniel T. Mates	BLM, MSO
Joe Gibson	BLM Retirees

WORKSHOP FACILITATORS

Tom Christensen	Inside Outside Inc. Austin, TX
Dr. John Hanna	Inside Outside West - Sumas, WA

APPENDIX 10 - Footnotes

1. These figures are based on a study of potential visitation for the proposed Fort Benton Visitor's Center (Morsey and McCool, 1991a). The visitor expenditure estimates in that study were specific to Fort Benton and may be higher than for the Pompeys Pillar site because the Fort Benton site would have been located in town and would likely generate more spending than Pompeys Pillar which is out-of-town.

2. Yellowstone County on the whole has 994 farms and about 1.5 million acres of land in farms, including rangelands (U.S. Department of Commerce, 1994). County-wide there are about 208,500 acres of prime and important farmland (USDA Soil Conservation Service, 1980).