APPENDIX 5
FLOODPLAIN MANAGEMENT
EXECUTIVE ORDER 11988

Any development by the BLM in a floodplain is guided by Executive Order (EO) 11988. This Executive Order was enacted to "avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." The EO 11988 requires agencies to follow an eight step process to assure all alternatives and guidelines would be met. Detailed below is a summary of the eight steps and how the BLM has or will comply with the EO.

Ground surveys determined that the entire site is within the 100-year floodplain. New facilities and improvements included under Alternative A and B would be designed and constructed to comply with EO 11988, as well as the Yellowstone County Floodplain Regulations, which are more stringent than the National Flood Insurance Program and the Montana Floodway Management and Regulation Act. The BLM has had ongoing consultation with appropriate agency and county officials and specialists regarding the proposed action.

STEP 1 – Determine if a proposed action is in a base Floodplain

Survey data, photos, and a floodplain study initiated in the summer of 1999, identified the entire site was in the 100-year floodplain. Consultation was held with the Yellowstone County Floodplain Administrator, USGS (Helena) and MT DNRC regarding procedures and permits to build in a floodplain. The DNRC floodplain 2000 study established the 100 and 500 year flood levels and floodways.

The interpretive center design standards will meet the building requirements for the 100 and 500 year floodplain levels.

A Capital Asset Plan and Justification for the Department of Interior submission requesting funding (September 21, 1999) stated the site would have to meet E.O. 11988 and Yellowstone County Floodplain Regulations.

In 1998, the Montana State Director briefed the BLM Washington Office leadership team and received concurrence to proceed with the proposed action

STEP 2 - Provide for Public Review

Public scoping for this EA was initiated on November 1999 through filing of a Notice of Intent to Prepare an Environmental Assessment on construction of an interpretive center and other facilities at Pompeys Pillar National Historic Landmark. The notice was published in the Federal Register on November 26, 1999.

Two public scoping meetings to gather comments on the scope of the environmental analysis for the project were held on January 4 and January 5, 2000. Many members of the public commented and/or wrote letters regarding construction in the floodplain and impacts to adjacent lands and floodplain function. Upcoming public review, including public notices and public meetings regarding this EA and compliance with floodplain guidelines, will be completed the summer 2001.

Step 3 - Identify and evaluate practicable alternatives to locating in the base floodplain

This step requires that practicable alternatives to the floodplain action be identified and considered. Alternatives outside the floodplain are favorable, but there may be other sites which have less risk associated with them inside the same floodplain. These less risky sites should be considered as alternatives if no others outside the flooplain exist.

A topography survey confirmed the entire property, except for the Pillar land form and a narrow berm on the northern field edge, is within the100-year floodplain. Therefore, there are no other sites on the Pillar property that are out of the floodplain. Other alternatives would include an off-site location, in which there would be other unavoidable issues and impacts (refer to Chapter Two).

State and federal floodplain regulations provide guidelines on flood water encroachment levels. Encroachment can be defined as the displacement of floodwaters caused by depositing fill materials to bring a structure out of the floodplain. Construction or fill within the floodplain fringe is allowable; however, the floodwater rise cannot exceed state or federal standards. The Montana State standards allow a 6 inch rise and Federal Insurance Program standards allow a 12 inch rise before a development impacts a floodplain and flood elevations.

In April 2000, the BLM and MT DNRC engineers analyzed impacts of alternative sites in the floodplain. A determination was made that the proposed location of the proposed action had no impact, meaning there would be no rise in the floodwater elevation. Conversely, the proposed Highway 312 location actually caused a 3/8 inch rise in flood water encroachment levels.

Step 4 - Identify the impacts of the proposed action

This EA analyzes the impacts of the proposed action. Impact analysis addressed riparian/wetlands; floodplain and water quality; wildlife and fisheries; Threatened and Endangered Species; Social and Economic Impacts, as well as other critical elements. Through analysis, management common, and design guidelines, there would be no negative impacts. The facilities would be confined and concentrated to avoid impacts to wildlife species (refer to Chapter Two, Management Common of this analysis). Through conformance to the floodplain guidelines, no long-term impacts would occur. There may be some short-term cumulative effects with simultaneous construction in the area with the proposed action, Highway 312 construction and the proposed grain elevator facility on the south side of Highway 312; however, there would be no long-term impacts associated with the proposed action and there would be no irretrievable, irreversible impacts.

Step 5 - Minimize threats to life, property and to natural and beneficial floodplain values, and restore and preserve natural and beneficial floodplain values

Any mitigation measures have actually been adopted into the design and guidelines for the proposed action. All development activities in the floodplain will comply and be permitted by Yellowstone County Floodplain Regulations that are in compliance with and are more stringent than the National Flood Insurance Program and the Montana Floodway Management and Regulation Act. All practicable means to floodproof structures will be taken in compliance with the Yellowstone County Floodplain Regulations. Meeting their requirements of the floor level being 2 feet above the 100-year flood level also allows the proposed action to withstand a 500 year flood, which is 0.9 feet higher. Higher wall footings are being considered on the sides to reduce the fill amounts in the floodplain. Fill slopes will be utilized on both building ends to provide Universal Design access for the public.

Enhancement of wetlands may occur with the potential development of new wetlands on the site. Through the practices of no net loss, Best Management Practices and/or avoidance measures, there would be no net loss of wetlands. Refer to the Riparian/Wetlands analysis in Chapters Two and Three for more detailed discussion.

Step 6 - Reevaluate alternatives

This analysis refines the 1996 decision to locate the interpretive center in the floodplain. New information contained in this analysis has determined that no site at Pompeys Pillar is out of the floodplain. Refer to the analysis and design requirements on how the proposed action will conform with floodplain management regulations and laws.

Step 7 - Issue findings and a public explanation

This analysis will fulfill this requirement and states:

1. All development activities in the floodplain will comply and be permitted by Yellowstone County Floodplain Regulations that are in compliance with and are more stringent than the National Flood Insurance Program and the Montana Floodway Management and Regulation Act.

2. Provides the public location maps (Map 4 and 5) of the proposed action.

Furthermore, public notification in the form of a Federal Register Notice of Availability and public meetings will be held.

Step 8 Implement the action

No deviation from the EA decision would be made unless the above actions are repeated.