



**NATIONAL  
CONSERVATION  
LANDS**

# Pompeys Pillar

National Monument

**Montana / Dakotas**

Annual Manager's Report—Fiscal Year 2020



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

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# Pompeys Pillar

National Monument

## Designating Authority

**Designating Authority:** Presidential Proclamation #7396

**Date of Designation:** January 17, 2001

## Additional Designations

Lewis and Clark National Historic Trail, National Historic Landmark, Pompeys Pillar Area of Critical Environmental Concern, Hands on the Lands.

## Site Description

Pompeys Pillar National Monument (PPNM) located about 25 miles east of Billings, Montana, encompasses 51 acres with a sandstone butte covering about two acres at its base and standing about 120 feet high, overlooking the Yellowstone River. Because it is the only sandstone outcrop on the south side of the Yellowstone River for several miles in either direction, it has been a landmark for centuries.

Pompeys Pillar's sandstone facets hold a vivid history of the unfolding West. Given the location at a natural ford of the Yellowstone River, the area has been a crossroads throughout history for hunters and their prey such as the once-prominent buffalo herds. In addition to William Clark's signature left during his visit in 1806, the sandstone is marked with literally hundreds of other etchings and drawings. Native Americans left both pictographs and petroglyphs. Fur trappers of the early 1800s, military expeditions, railroad workers, and early settlers used the sandstone as a registry of their passing. The names of regional landmarks, explorers, and settlers live on in legend.

The area supports a variety of wildlife including mule and whitetail deer, raccoon, fox, bobcat, coyote, numerous small mammals, amphibians, and reptiles. While not very common, there have been mountain lion and black bear sightings in the area. The Yellowstone River near Pompeys Pillar supports many neo-tropical migratory bird species and the riparian corridor allows for nesting and/or safe resting cover during migration. The Yellowstone River near Pompeys Pillar is a transition zone between a cold and warm water fishery.

## Monument Offerings

The Pompeys Pillar Interpretive Center opened in 2006. Interpretive exhibits relate the journey of Captain William Clark and his detachment, including Sacagawea and her son Pomp, down the Yellowstone River Valley. The center's exhibits also address native culture, flora and fauna, and the historical legacy of Pompeys Pillar through the changes of the 1800s. There is also a gift store operated in partnership with the Friends of Pompeys Pillar within the visitor center.

An outdoor tipi exhibit is one of the first things that catches visitors' attention as they approach the interpretive center. The exhibit includes a large tipi statue, flags of the seven federally recognized tribes of Montana, and interpretive signage. One goal of the exhibit is to help visitors draw connections with the indigenous cultural history of the site through a very powerful universal truth: the importance of home, family, and hospitality.

The "Yellowstone River Walkway" provides a large-scale model of the Yellowstone River visitors can follow on foot or by wheelchair from the parking lot to the Pillar along a paved, outdoor trail. A series of interpretive signs provide a timeline of William Clark's Journey Down the Yellowstone using excerpts from his journal. Other improvements to the site include a stairway to Clark's signature and to the top of the Pillar, an entrance station, a paved entrance road and parking lot for over 100 vehicles, over one-quarter mile of paved walkways and an amphitheater. Additionally, there are trails that allow visitors to explore the extensive riparian area between the Interpretive Center and the Yellowstone River.

## Year Accomplishments

- The first phase of a rock stabilization study was completed to mitigate public safety concerns and potential loss of archeological resources. A contract to complete the second phase was awarded.
- A contract was awarded to construct a shade structure for the outdoor amphitheater.
- Five original videos were created to provide virtual opportunities for the Interpretation and Education Programs.

## Future Priorities and Opportunities

- A celebration of the 20-year anniversary of the National Monument designation and 30-year anniversary of BLM acquisition in 2021.
- Phase 2 and 3 of the rock stabilization study to mitigate safety concerns will be completed in 2021, with the goal of restoring public access throughout the site.
- The amphitheater shade structure construction will be completed in the Spring.
- The boardwalk providing access to the Pillar may be replaced in 2021.

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# Pompeys Pillar

## National Monument

Eastern Montana/Dakotas District Office

Bureau of Land Management

Billings Field Office

5001 Southgate Drive Billings, Montana 59101

Phone: 406-896-5013

Unit Manager: John A. Reffit

Site Web Address: <https://www.blm.gov/programs/national-conservation-lands/montana-dakotas/pompeys-pillar>

**Map of Pompeys Pillar National Monument**



Montana

# Pompeys Pillar National Monument



# 1 Pompeys Pillar Overview

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## Acreeage

<b>Total Acres in Unit</b>	51
<b>BLM Acres</b>	51
<b>Other Federal Acres</b>	474 Adjacent BLM Area of Critical Environmental Concern (ACEC)
<b>State Acres*</b>	0
<b>Private Acres*</b>	10-acre inholding

\*State and Private Acres are not part of the total unit acres

## Budget

Budget Title	Code	Funding
Monuments & Conservation Areas	1711	268,000
Recreation & Visitor Services	1220	80,000
Total Budget (does not include FTE and CS salaries)		348,000



A resident of the Pillar, Great Horned Owl

Photo Credit Danielle Thels

## Current Areas of Focus

We continue to manage the Monument and the adjacent Area of Critical Environmental Concern to protect the historical, cultural, and biological values (found in Section 4), including its outstanding viewsheds and unique resources, while providing opportunities for interpretation, education, and enjoyment of the area for present and future generations. We also continue to provide our visitors, whether part of a school group or just passing through, with the best experience possible with the delivery of excellent interpretive and educational programs.

We will continue working with our engineers and contractors in the coming year to address safety concerns resulting from continual weathering of the sandstone formation and the deteriorating boardwalk at the Pillar. The goal is to stabilize and mitigate potential safety concerns for the visiting public. In addition, we plan to construct a new boardwalk that accesses the Pillar. As public safety is our top priority, there is a possibility that access to the Pillar will remain closed until the stabilization is complete and the boardwalk replaced. We continue efforts to maintain and enhance the visitor experience at the Pillar.

The Covid-19 Pandemic of 2020 presented unprecedented challenges to site operations. Beginning in March 2020, site leadership thoroughly researched, implemented, communicated, and referenced National, State, and County COVID-19 response guidelines in accordance with evolving CDC, DOI, BLM, MT State, Riverstone Health, and National Conservation Lands guidance throughout the year.

In response to closures (due to both COVID-19 and stabilization work), we planned and implemented several first-time alternative interpretive and education program opportunities, including modified fee station operations (fee-free, no touch), modified hours of operation, an outdoor interpretive contact station, a safe system for informal contacts, signage and messaging for boardwalk closure, alternative modes of viewing Clark's signature (live outdoor video monitor and spotting scope), and an outdoor theater.

We also created several interpretive outreach programs for those who could not visit the site. We created 5 videos for the interpretation and education youth programming in collaboration with BLM staff, Montana Conservation Corps Fellows, Friends of Pompeys Pillar volunteers, and BLM Montana/Dakotas State Office Public Relations team. Three videos were created as a series designed for children: *Welcome to PPNM*, *Wildlife at PPNM*, and *Evidence of the Past at PPNM*. The videos were included in the Billings Public Library - Exploring Local - YouTube video series, and on the BLM MT/DK Facebook, Twitter, and YouTube Pages, and are being used for virtual education programs with local 4th and 5th grade classes during the 2020/2021 school year and beyond. We also filmed two virtual interpretive programs presented by longtime volunteers, *Weapons of the Expedition* and *Trade Goods of the Expedition* that will be featured on social media outlets.



COVID-19 infection rates continued to rise throughout the country, state, and county into fall 2020. COVID-19 is projected to continue into spring 2021 and will require additional planning for a safe and successful reopening in 2021.

## Planning and NEPA

The Billings Field Office (BIFO) and Pompeys Pillar National Monument (PPNM) completed a Resource Management Plan (RMP) revision in 2015. The Monument portion of the plan was prepared concurrently with BIFO's RMP. One Environmental Impact Statement (EIS) was used for RMP analyses. The RMP addressed the three management zones at the monument by including considerations for recreation, visual resources, fish and wildlife habitat, vegetation, fire, water, air, soil, wetlands/riparian, and cultural resource management.

**Rock Stabilization Efforts** – The BLM has identified locations on the rock outcropping that has suffered severe weathering and appear to present a risk to public safety. At these locations, large boulders and rock have become unstable due to physical weathering, which has caused the development of regularly spaced fractures and cracks in the rock formation. As time progresses, the formations have high potential to become even more unstable due to the ongoing erosion and weathering of the soil and rock. We worked with engineering and a contractor (Itasca Consulting Inc.) to conduct a comprehensive assessment of the current state with the ultimate goal to address how the rock formations in three key locations could be stabilized to prevent injury to the public and facilities from the movement of boulders and other rocky materials. A Categorical Exclusion was completed (Emergency Scaling and Monitoring Hazardous Rocks at Pompeys Pillar National Monument). Please see Section 3 Science for more information.

**Boardwalk Replacement** – The current wooden boardwalk has undergone engineering evaluation in past years, resulting in several forms of structural reinforcement to extend the service life. The boardwalk, which was built in 1992, has deteriorated to the point that the entire structure needs to be replaced. Design plans are complete. There will be additional benches and platforms that will accommodate larger groups of visitors and the new boardwalk will provide additional access to other historical rock art and carvings. Implementation of the new boardwalk design will create opportunities to improve visitor experience. The boardwalk replacement will occur following completion of the rock stabilization effort.

## Staffing

Pompeys Pillar is managed with a seasonal workforce and one FTE, the Monument Manager.

- Monument Manager (GS12) Permanent FTE – 100% Monument
- Park Ranger (Visitor Use) (GS7) Career Seasonal – 100% Monument

- Park Ranger (Interpretation) (GS9) Career Seasonal (*This year...March 2020 - present*) – 100% Monument
- Maintenance Worker (WG8) Career Seasonal – 50% Monument, 50% Field Office (*Not available this season, vacant since June 2019*)
- Five – Park Rangers (GS5) Seasonal (May-October) – 100% Monument
- Two – Student Interns –Montana Conservation Corps – Seasonal (May-September) – 100% Monument
- 17 Volunteers (2020) Seasonal – 100% Monument – 932.5 hours



**Tessa Coster, Clare Jurczak, Danielle Theis and Laura Holloway keying out a plant during a vegetation training and discussion (from bottom left and clockwise) Photo Credit BLM**

# 2 Programs and Accomplishments

## General Accomplishments

Success was measured by varied metrics in 2020. The greatest success has been our ability to adapt to challenging circumstances faced by other sites (COVID-19), and one unique to Pompeys Pillar alone (closure of the boardwalk). These challenges required adaptability and flexibility to be able to offer visitors a high-quality experience, while maintaining a safe environment for the public and staff. Emphasis in 2020 was placed on quality experiences, both on-site and virtually, and on work that will allow Pompeys Pillar National Monument to be safely enjoyed by present and future generations.

Values of a successful season at Pompeys Pillar National Monument have traditionally been measured by visitation and fees collected. Visitation to Pompeys Pillar National Monument was 14,555 visitors in FY 2020 (October 1 to September 30). The standard amenity fee was waived this season due to reduced services. Fees collected in October 2019 were \$2,497.00. This revenue stays at the site and goes toward maintenance and improvements.

In addition to season-long programming, approximately 170 people attended the Signature Day Event (July 25) - *Celebrating the 214<sup>th</sup> Anniversary of William Clark and the Corps of Discovery visit to Pompeys Pillar – A living history presentation on Firearms of the Expedition.*

## General Accomplishments Table

	Number of Visitors	Education Participants	Interpretive Participants	Visitor Center/Contact Station Visits	Hours of Volunteers	Interpretive Programs
<b>TOTALS</b>	14,555	441	n/a	12688	933	5828

Elements of the Montana/Dakotas National Landscape Conservation System (NLCS) Strategy that were achieved this year are as follows:

- **Goal 1F (5) - Manage facilities in a manner that conserves, protects, and restores NLCS values.** This year we developed a trail plan and began building trails that will enhance visitor experiences and protect the natural and cultural resources values.
- **Goal 2C (3) - Work with Congress, tribes, other federal and state agencies, and national and local communities to identify and protect lands that are critical to the long-term ecological sustainability of the landscape.** We contacted one of the adjacent landowners in hopes of developing a good rapport and relationship to open the door to potential collaborative access efforts. We also worked with our Pheasants Forever partner to develop a 4-year Vegetation Management Plan for Pompeys Pillar ACEC (2020–2023). The following vision statement was developed: “Provide safe opportunities for current and future visitors to the BLM land around Pompey’s Pillar for hunting and hiking, while protecting the natural visual characteristics and native flora and fauna along the Lewis and Clark National Historical Trail corridor and Pompey’s Pillar.”
- **Goal 2D (4) - Adopt a community-based approach to recreation and visitor services delivery, consistent with the conservation purpose of the NLCS and the socio-economic goals of the local community.** We fulfilled requests from three local community organizations to provide alternative interpretation, education, and outreach opportunity needs. These included the Billings Public Library (Pompeys Pillar Video Series for children), the Moss Mansion Museum (summer and fall children’s activity packets), and Audubon Naturalists in the Schools (ANTS) in Billings, MT (virtual tour of Pompeys Pillar and EKO Pass).
- **Goal 3A (1,3) - Launch a long-term public awareness initiative about the BLM’s NLCS lands, including national and local outreach, communication, and media plans.** We created five videos in partnership with the BLM MT/DK State Office Public Relations Team. These include: *Welcome to Pompeys Pillar National Monument*, *Wildlife of PP*, *Evidence of the Past at PP*, *Weapons of the Lewis and Clark Expedition*, and *Trade Goods of the Lewis and Clark Expedition*. We also created 20+ social media posts for BLM MT/DK Facebook and Twitter pages.
- **Goal 3B (4) - Strengthen partnerships to facilitate shared stewardship and to advance the relevance of the NLCS to communities of interest and place.** We have fostered relationships between partners and PPNM. NPS Lewis and Clark National Historic Trail: Ordered and displayed social distancing posters. Participated in webinars, followed their newsletter, and provided with photos and volunteer statistics for 2020. We also ordered LCNHT 2020 Volunteer pins and distributed them to our volunteers. Lewis and Clark Trail Heritage Foundation: ordered/reserved travelling exhibit for use in PPNM interpretive center during

the month of July of 2021 (Signature day and the 20<sup>th</sup> anniversary of PPNM) and 2022: “Reimagining America: The Maps of Lewis and Clark”.

- **Goal 3B (4) - Advance and strengthen partnerships to facilitate shared stewardship and to advance the relevance of the NLCS to communities of interest and place by supporting place-based partnerships such as Pompeys Pillar Historical Association.** Continued our partnership with the Friends of Pompeys Pillar.
- **Goal 3C (1) - Expand use of volunteers within the NLCS by providing outreach on volunteer opportunities through Volunteer.gov and our partner, Friends of Pompeys Pillar.** We successfully recruited and placed two volunteer site hosts using Volunteer.gov and they worked at least 4 months at the site.
- **Goal 3E (1,5) - Recruit, train, and mentor young people so that they may engage professionally in recreation, education, and stewardship on NLCS lands.** We partnered with Montana Conservation Corps (MCC) and provided several internship opportunities at PPNM).

### **Education, Outreach, and Interpretation**

We delivered over 6,000 public interpretive and educational programs. This encompassed; school field trips, visitors stopping through during their summer vacation, and those visiting Pompeys Pillar National Monument as their primary destination. These programs were offered at various locations around the Pillar; in the Educational Center (Log Cabin), at the Interpretive Center, Fee Station, Outdoor Contact Stations (outside the Interpretive Center and Education Center), and throughout the grounds (Roving). This total also includes 332 new Junior Rangers who were sworn in. We had 292 participants (students and adult chaperones) participate in 54 education school programs. This would not have been possible without the assistance from volunteers, BLM Rangers, Friends of Pompeys Pillar staff, Montana Conservation Corps (MCC) interns, and partners including the Montana Audubon Center.

Highlights for Education, Outreach and Interpretation include:

- We created 5 original videos for Interpretation and Education Youth Programs. The videos were produced to support our outreach efforts and to support the Billings Public Library “Exploring Local” YouTube video series.
- Interpretive rangers designed new Mission, “Take Flight” to our interactive feature, *Agents of Discovery (AoD)* Application. This engages visitors using their mobile devices. AoD is an educational mobile gaming platform that uses augmented reality to get youth active and safe opportunity for visitors to explore the site while indoor facilities remained closed due to COVID-19 guidance.
- As one of the premier locations on the Lewis & Clark National Historic Trail (LCNHT), we worked closely with the National Park Service to promote the trail.

We ordered and displayed Lewis and Clark themed social distancing posters & stickers. We also participated in webinars and provided photos and volunteer statistics for 2020. This year's volunteers received 2020 L&CNHT pins.

- Special Event: International Migratory Bird Day. Pompeys Pillar registered as an Official International Migratory Bird Day site with Environment for the Americas (EFTA). We ordered and distributed posters, and created an outdoor, self-guided bird walk showcasing locally significant migratory birds. As the interpretive center was closed due to COVID-19, we provided an outdoor exhibit table with displays, activities, and information.
- Over 20 interpretive social media posts were posted on the BLM MT/DK Facebook and Twitter pages.
- Youth Outreach: We created and provided 50 summer and fall Pompeys Pillar-themed activity packets to local children via the Moss Mansion Museum's Children's Activity Boxes in Billings, MT.
- Special Event: Signature Day. This year marked the 214<sup>th</sup> anniversary of Clark's visit to Pompey's Pillar, in commemoration of this event, we showcased a "Clark on the Yellowstone" interpretive talk, a "Weapons of the Expedition" demonstration, a prehistoric rock art exhibit table, and an outdoor gift shop.
- Anna Arsic (Lead Interpretive Ranger at PPNM) was nominated for and was the recipient of BLM's 2020 Inspirational Interpretation and Resource Education (INSPIRE) Award (Education). This award recognizes BLM employees who have made significant contributions to BLM programs, initiatives, projects, and events through innovative interpretation and education.



Park Ranger Paul Eppinger presenting Clark on the Yellowstone talk on Signature Day 2020. Photo Credit BLM

## Fish and Wildlife

We continue working with Montana Fish Wildlife and Parks, Pheasants Forever, and Habitat Forever partners to improve wildlife habitat and hunting opportunities for the public within the ACEC at PPNM. This year the Billings Field Office developed a 4-year Vegetation Management Plan for Pompeys Pillar ACEC (2020–2023). The following vision statement was developed: “Provide safe opportunities for current and future visitors to the BLM land around Pompey’s Pillar for hunting and hiking, while protecting the natural visual characteristics and native flora and fauna along the Lewis and Clark National Historical Trail corridor and around Pompey’s Pillar.”



MCC crew planted and protected 144 trees (Plum, Buffaloberry, Chokecherry, Golden Currant and Rocky Mountain Juniper) and 96 grasses (Basin Wildrye, and Blue bunch Wheatgrass) on the ACEC as part of Montana’s Upland Game Bird Enhancement Program. Photo Credit BLM

## Partnerships

The Monument has established multiple partnerships through the years and continues to foster relationships with the surrounding communities, volunteers, and various organizations. Below are highlights of these partnerships and accomplishments this past year.

***Friends of Pompeys Pillar*** – The Friends of Pompeys Pillar (Friends) are the strongest

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partner organization. The Friends celebrated another great season helping to promote and support Monument operations. The BLM supports the Friends through an assistance agreement that is updated annually. A primary role of the Friends includes management of the volunteer program and operating the gift store at the interpretive center. Proceeds from the gift store are instrumental in supporting the Monument through transportation grants to regional schools, on-site and in-class environmental education programs, and a myriad of special projects and events. Volunteers help BLM staff whenever and wherever needed.

This season, 17 Friends volunteers donated 932.5 hours to Pompeys Pillar National Monument. Due to COVID-19 restrictions, the interpretive center did not open this season, decreasing the number of volunteer hours that normally would have been given in the gift shop. The same restrictions prohibited the site from sponsoring large-scale volunteer events such as National Trails Day, Public Lands Day, and youth events (Boy Scout service projects),

For the summer season, we had seven returning volunteers at Pompeys Pillar National Monument. Five volunteers provided interpretation, two volunteers performed maintenance duties, and one volunteer worked at the outdoor Friends of Pompeys Pillar Gift Shop during a special event. Interpretation provided by volunteers included a weekly *Weapons of the Lewis and Clark Expedition* demonstration, daily informal interpretive contacts at the base of the Pillar, daily operation of an outdoor theater, use of a spotting scope to allow visitors to see Clark's signature from a distance, and a presentation of *Trade Goods of the Lewis and Clark Expedition*. This year we collaborated with the BLM MT State Office to record and produce two interpretive talk videos presented by volunteers for use on social media, distance learning, and in the Interpretive Center theater. Volunteers also staffed the Friends of Pompeys Pillar Gift Shop located outdoors on signature day. Additionally, volunteers also performed maintenance duties around the monument such as groundskeeping and installing new hardware.

Perhaps the greatest achievement of the volunteers at Pompeys Pillar was their commitment to the site in the face of a very challenging season. Despite the closure of the boardwalk up the Pillar itself due to stability concerns and the closure of our visitor center because of COVID-19 restrictions, they showed up willing to adapt and learn to provide the very best visitor experience possible.

Working with the Monument Manager, the Friends take the lead on publicity and advertising for the Monument. Through ads in local publications, tourist information pieces, brochures, a website, Facebook, and displays throughout the state, residents and tourists are kept aware of events and hours at the Pillar and are encouraged to visit their Monument.





Friends of Pompeys Pillar volunteer Mike Lamphier presents Weapons of the Expedition on Signature Day 2020 Photo Credit BLM

**Huntley Project Museum** – Located approximately 15 miles to the West of the Monument, the Museum promotes the Pillar to their clientele. Exhibits in the Museum complement those at the Monument. The Museum provides robust educational exhibits and programs that tell the remarkable story of settlement and development in the region. During the summer of 2020, Huntley Museum provided a free presentation, tour, and Q&A session to PPNM rangers during training. The museum also provided consultation on interpretive signage related to farming history at PPNM.

**Lewis & Clark Trail Heritage Foundation** - The Lewis and Clark Trail Heritage Foundation national organization and the local Rochejhone Chapter, are key to promoting and supporting the Monument.



Friends of Pompeys Pillar volunteer Steve Rosh views William Clark's signature through a new spotting scope Photo Credit BLM

**National Park Service (NPS) – Lewis & Clark NHT** - We continued working closely with the NPS to promote the Lewis and Clark National Historic Trail. At the end of the fiscal year, we provided the NPS with a detailed report regarding the Monument's volunteer program and accomplishments that supports the Lewis and Clark NHT at the Monument. A highlight for the overall Lewis & Clark Trail resulted from the John D. Dingell, Jr. Conservation, Management, and Recreation Act which extended the Trail an additional 1,200 miles along the Ohio and Mississippi Rivers from Pittsburgh, Pennsylvania to Wood River, Illinois.

**Billings Chamber of Commerce** - The Billings Chamber of Commerce is a strong supporter and continue to help promote the Monument throughout the year particularly during tourist season. We provide visitation totals for the season and have typically hosted tours for travel and tourism companies. This year we did not host any tours.

**Montana Conservation Corps (MCC)** and the Conservation Intern Program through AmeriCorps provides young adults – typically college students or recent graduates – with professional experience in the conservation field, while helping our site meet our goals. This year we completed a modification on the agreement resulting to provide two conservation interns to assist with operations at the Monument. They were a great part

of the team and assisted with our interpretation and education programs, and maintenance. Each intern had projects they selected and completed are as follows:

- Edited content of the Agents of Discovery application to reflect changes to site.
- Assisted with script and production of four films to help engage kids during quarantine and social distancing.
- Developed interpretive program on early history of Pompeys Pillar.
- Conducted research to enrich content of staff resource manual.
- Researched and created social media posts for BLM MT/DK Facebook and Twitter pages.

Overall, we were very impressed by the work MCC participants completed for us. We value the partnership and look forward to future projects with MCC.



MCC Conservation Intern Danielle Theis providing roving Interpretation

Photo Credit BLM



MCC Conservation Intern Phoebe Myers interpreting pictographs

Photo Credit BLM

Many of our partnerships support Secretarial Order 3356 by supporting and expanding hunting and fishing, enhancing conservation stewardship, improving wildlife management, and increasing outdoor recreation opportunities for all Americans. In particular, the projects within the MCC agreement support the DOI infrastructure needs, creates jobs in the American economy and improves access to outdoor recreation opportunities. It also supports Secretarial Order 3347 by enhancing conservation stewardship and increasing outdoor recreation opportunities and improves the management of game species and their habitat. This and other partnerships support this effort to develop life skills in young Americans, while providing them exposure to public lands. Blending these key goals benefits American youth, the DOI, BLM, and public lands by efficiently achieving important natural and recreational objectives, while providing invaluable lifetime character building experiences.

***The Audubon Conservation Education Center*** - The Audubon Conservation Education Center is also a key partner in implementing educational programs. The Audubon Center sponsors Get Outside Montana and started the Audubon Naturalists in the Schools program (ANTS), which facilitates both classroom and field-based, hands-on learning. Through an agreement with ANTS, we were able to host four ANTS programs with schools in the underserved communities of Shepherd and Huntley. During fall of 2020, in response to school closures and other COVID-19-related challenges, ANTS reached out to PPNM to request assistance with providing BLM-specific information for

Distance Learning programs with local 4th grade classes. ANTS introduced PPNM to targeted schools and PPNM was able to establish a working relationship with teachers to plan virtual programs for the 2020/2021 school year.

**Boy Scouts of America** – Local Boy Scout troops have provided volunteer labor for several projects throughout the years at Pompeys Pillar. This year, we had an Eagle Scout candidate, Seth Babcock, who built and installed several bat boxes at Pompeys Pillar. Not only will this improve bat habitat, but it may help to minimize the pesky mosquito population.



Seth Babcock (Eagle Scout Candidate) next to recently installed bat box. Photo Credit Anna Arsic

**Western Heritage Center Museum (WHC)** – The WHC is in Billings, Montana and offers visitors a deeper understanding and appreciation of the people, places, and historical events of south-central and southeastern Montana. This is accomplished through arts and humanities projects, programs, and exhibits based on broad regional interest and

need. In the spring of 2020, WHC provided PPNM staff with a presentation and tour of collections specific to PPNM history and prehistory. The museum also loaned PPNM two travelling educational trunks for reference. In the fall of 2020, WHC hosted a National Association for Interpretation (NAI) Certified Interpretive Guide training for five PPNM staff members. The training was highly beneficial to our site because it both incorporated nationally recognized standards and focused specifically on interpretation programming at PPNM. The training was also at a discounted rate due to ongoing mutually beneficial partnership between our organizations. We plan to continue to partner on similar efforts in 2021. The museum continues to cross-promote PPNM to visitors.

***MT Office of Public Instruction, Indian Education Division*** – provided guidance and donated three educational books to PPNM to support the development of cultural awareness, education, and interpretation among staff, students, and visitors.

***Billings Public Library*** – requested PPNM participate in an “Exploring Local” video series for children as an alternative to their in-person programs. The library showcased our videos series on their YouTube channel. To aid in creating the series, we borrowed countless books from the library for research purposes.

***Moss Mansion Museum*** – The Moss Mansion is in Billings, Montana and is also on the National Register of Historic Places. The museum aims to inspire, educate, and facilitate historic and cultural preservation activities for the local community. This summer, the museum requested and distributed 50 PPNM Jr Ranger Booklets locally via the Kids Summer Activity Box. This fall, the museum requested and distributed 50 PPNM Bat Week Activity packets via their kids Fall Activity Box.

***Pictograph Cave State Park*** – is a National Historic Landmark and robust archaeological site where visitors can easily view ancient rock art. The site assisted with PPNM staff training and orientation by providing a ranger guided tour and Q&A session relating to locally significant prehistory information and interpretation.

***Little Bighorn Battlefield National Monument***– assisted with PPNM staff training and orientation by providing fee waivers for self-guided exploration related to locally significant history.

## Recreation and Visitor Services

This year we looked at ways to improve the visitor experience with the following site improvements:

- Exhibit upgrade— Audio accessibility “sound sticks” were installed for exhibits in the interpretive center.
- Exhibits installed/upgraded as part of COVID-19 Response:
  - Live camera view of William Clark's signature made available outdoors.
  - Outdoor theater developed at Education Center for visitors to view videos.
  - Two exhibits were installed in response to boardwalk closure, to explain the reasons for the closure and ongoing work at the site.
  - Development of a mobile spotting scope and tablet to view historic signatures on Pompeys Pillar (see photo on page 18).
- Development and installation of interpretive sign on geology and rock stabilization project.
- Upgraded theater seating.
- Added lighting and lounge area in theater to enhance access.
- New aisle lighting in theater.
- Updated Junior Ranger activity book.
- Several new and original programs were developed.
- Four existing videos were made available on-line through the Montana Dakotas YouTube Channel in response to Pandemic in the Spring of 2020.
- Five new videos were produced (Children’s video series for website, social media, MT/DK YouTube, and Billings Public Library) Welcome to Pompeys Pillar (PP), Wildlife at PP, Evidence of the Past at PP, Interpretive Talk Videos (Trade Goods and Weapons of the L&C Expedition). All were posted to the MT/DAK YouTube page.
- New door locks were added to pit toilet doors.
- New street address sign established at front entrance.
- New Yellow-bellied Marmot taxidermy mount added to collection including Marmot pelt.
- New plexiglass barrier installed at front desk/gift shop in Interpretive Center.
- Purchased 360-degree camera which will be used to create virtual tour of Pompeys Pillar National Monument that can be accessed on-line.
- One mile of trail maintenance and trail improvements were completed.

## Volunteers

Our volunteer program at the Monument is very active. Volunteers are recruited from local communities through the Friends of Pompeys Pillar, volunteer.gov, other community organizations, and through word-of-mouth.

However, most of the volunteers come from our Friends partner group. The volunteers provided interpretative tours at the Pillar and outdoors around the Education Center. Other roles that the Friends organization plays includes recruiting and coordinating volunteers, raising funding for projects, and providing educational and promotional

support for the Monument.

This year we had 17 volunteers who donated a total of 932.5 hours to assist in a variety of capacities at the Monument. As a token of our appreciation, we awarded 2 volunteers The America the Beautiful – National Parks and Federal Recreation Lands Pass – Volunteer Pass (250 hours) for their volunteer service. We also awarded 17 Certificates of Appreciation.

#### Highlights from our Volunteer Program

- Two Site Hosts volunteered with maintenance and staffing an outdoor the gift shop during Signature Day.
- Five Friends of Pompeys Pillar Volunteers continued to give interpretive programs throughout the season.



Site Host Volunteer Ron Enzenbacher with new address sign Photo Credit Grace Enzenbacher

#### Public Access

The site was open to drive-in traffic from Memorial Day weekend through October 23. We close the gate during the winter months to protect the resource, but the Monument



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remains open to walk in visitors year-round. We typically do not get as many visitors between November and March.

While we are open to the possibility of acquiring additional acreage adjacent to Monument and ACEC, we are not actively pursuing any parcels of land. Please refer to the Partnership section for further details.

We continue working with Montana Fish Wildlife and Parks and Pheasants Forever to provide access and hunting opportunities for the public within the ACEC at PPNM. We have partnered with Pheasants Forever for the past 12 years converting existing farmland to native grasses and food plots to increase habitat for Pheasants.

### **Prescribed Fire**

A 100-acre prescribed burn was conducted this year at Pompeys Pillar National Monument and ACEC. Through a partnership with Montana Fish, Wildlife, and Parks, Pheasants Forever and Habitat Forever, we want to achieve beneficial results by improving wildlife habitat and providing hunting opportunities for the public. Prescribed fire is very useful and appropriate for this site. Similarly, it was used as a tool by American Indians on the great plains.

Prescribed fire benefits wildlife by improving habitat (including cover and food sources). Cool season grasses respond well to prescribed fire (at the right time - before green up). A release of nitrogen that fire causes help plants grow. The prescribed fire also reduces the thick thatch layer that can build up (decomposing plant material) but also promotes grass tillering (new plants) and reduces the potential for wildfire.

This is also one of the Montana - Dakotas State Director Priorities for FY20.



Prescribed Fire at Pompeys Pillar National Monument

Photo Credit BLM

# 3

## Science

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### Science

#### **Rock Stabilization at Pompeys Pillar National Monument**

In 2019, the BLM awarded a contract to design and implement rock stabilization activities. In preparation of the supporting EA, we contacted the National Park Service as part of Section 106 consultation. There were some concerns about the project, as proposed, and they recommended review by their in-house geotechnical expert. We convened a group of resource experts and program leads at Pompeys Pillar to look at the project and discuss the proposal in person. In preparation for, and through visual inspections during this meeting, a potential new risk was identified. Following up on this discovery, the NPS engineer (Dr. James Mason) completed a stability investigation and analysis with recommendations in early 2020. The decision to close the boardwalk and staircase that leads up the Pillar to the public was made on March 6, 2020.

In 2020, the Bureau of Land Management contracted with a very reputable firm, Itasca Consulting Inc., to do a more in-depth investigation, analysis, and evaluation of rock stability at Pompeys Pillar National Monument. This work began in July and will be completed in three phases.

Phase I has been completed. The goals for Phase I were as follows:

1. Conduct high-resolution scan and photogrammetry of the pillar.
2. Site visit and non-invasive site investigation.
3. Install and read preliminary instrumentation.
4. Create a preliminary 3D geometry model of the critical areas, considering visible and hidden features. This would be a geometry model adequate for a statics-based stability assessment.
5. Conduct a statics-based factor of safety (FOS) for the critical blocks.
6. Develop a rock block monitoring program concept.
7. Develop site investigation plan.
8. Prepare a written report.

In summary, a site visit, including joint mapping, regular photography, drone photography, LIDAR scanning, rock block observations, and instrumentation installation, was conducted July 7-13, 2020. Representatives from the following engineering firms were present:

- Itasca Consulting Group-- lead coordination efforts among subcontractors, as well as collected manual joint data and rock observations.
- Bolton and Menk-- provided geometry capture services, including LIDAR scanning, photogrammetry, and surveying.
- Barr Engineering-- provided the initial instrumentation.

A design phase instrumentation and monitoring program was developed by Barr and Itasca. The design phase instrumentation program was intended to collect a block and joint deformation baseline. Itasca, in consultation with BLM archeology staff, identified sensor locations. Barr installed the sensors, dataloggers, and telemetry. Five remote-reading rock monitoring instruments were installed on Friday, July 10, 2020. The types and locations are illustrated below. The five instruments installed include the following:

- Block 1 A distance meter mounted on a rock near the rail fence and pointing at Block 1 (see photos below for block names).
- Block 2 A distance meter mounted under Block 2.
- Block 2 East Face and Block 2 South Face--One crack meter each on the east and south faces of Block 2 (see Figure 9).
- Turtle Rock One crack meter across the joint that separates the body of Turtle Rock from the adjacent rock mass

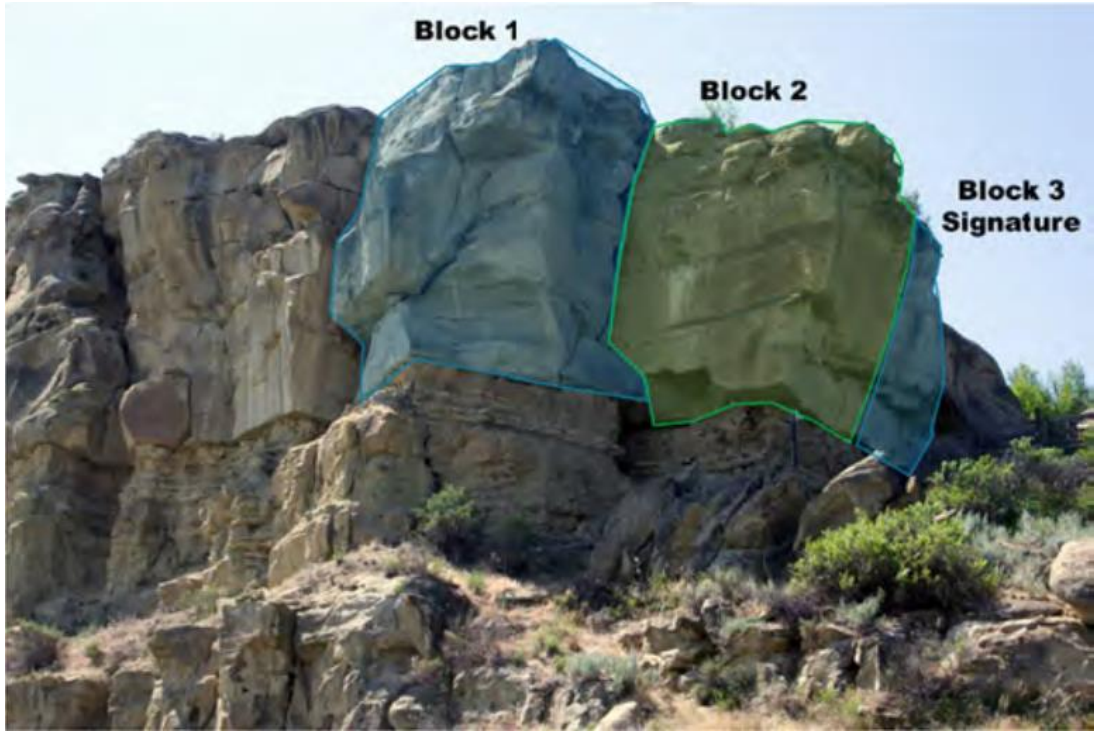
Some of the recommendations that came from the report were to conduct additional investigation and place additional monitoring devices. This would include additional joint characterization, including roughness, aperture, infilling, orientation, and connectivity with other joints at the Signature Blocks, Turtle Rock, and the Lower Rock area.

Additionally, hands-on sounding of the shale and siltstone layers near the Signature Blocks, Turtle Rock, and the Lower Rock area. Also, a further study of where the shale and siltstone has sagged away from the sandstone would be completed by measuring the shale/siltstone undercut at the Lower Rock area.

Other recommendations included core drilling and geophysics evaluation of the shale and siltstone layers near the Signature Blocks and Turtle Rock blocks. Some core samples would be point-load tested on site and other samples sent out for laboratory tests.



Lee Peterson, Itasca Consulting Inc. conducting rock stability investigation Photo Credit Anna Arsic



References to Block Names 1,2,3 at Pompeys Pillar

Photo Credit Itasca Consulting Inc.



Location of Monitoring devices at Pompeys Pillar

Credit Itasca Consulting Inc.

Phase II work is just getting underway in the Fall of 2020.

The goals for Phase II are as follows:

- The primary objective of the Phase II contract is to expand on the present understanding of the sandstone formation in the vicinity of William Clarks Signature, Turtle Rock, and Lower Rocks as understood from the provided attached reports and the findings from PPNM Rock Stabilization Phase I.
- At completion of this work, sufficient data will be gathered to properly bid a third and final contract, Pompeys Pillar Rock Stabilization Phase III which will consist preparing contract drawings and specifications to achieve the design for stabilization at the three identified locations on the Pillar.

Other facets of Phase II include:

1. Identify stabilization parameters and tolerances including goals, risk tolerance, budget for engineered rock stabilization solutions, and all critical parameters and tolerances to develop the proper rock stabilization plan.
2. Manage on-site geotechnical investigation and associated laboratory testing.
  - a) Manage Rock Block Monitoring Program (RBMP) comprised of three parts: development, construction/Installation, and continuous data assessment.
3. Evaluate rock properties, joint characteristics (location, continuity, roughness, infilling, etc...), and bedding characteristics.
4. Preparing a 3DEC model of the three identified critical locations.
5. Developing a modeling plan for each identified critical location which identifies uncertainties in the subsurface information and develop a modeling matrix addressing the uncertainties.
6. Conduct 3DEC modeling, including parametric study of what-ifs about rock properties, joints, bedding planes, etc.
7. Establish stabilization and scaling options for each identified critical location.
8. Provide a report of the Stability Assessment. This report shall include:
  - a) Recommendations about reopening the Boardwalk at Pompeys Pillar for visitation.
  - b) Identified stabilization and scaling options for each identified and design life expectancy.
9. Conduct 3DEC modeling of stabilization options.
10. Develop recommendations for stabilization and scaling work.
11. Provide a written report detailing all findings from the completion of the investigation, analysis and predesign. In this report the contractor will provide reasons for their recommendation of stabilization techniques.

This is a very unique and challenging project that is unlike any other. We expect to learn much more and will work to monitor and potentially stabilize unstable rock formations, mitigating potential safety concerns, and hopefully reopen the Pillar to the public in the near future.



Crack meters installed on rock at Pompeys Pillar

Photo Credit Itasca Consulting Inc.

# 4 Resources, Objects, Values and Stressors

## Pompeys Pillar National Monument Cultural Resources – Rock Art

The Monument is home to over 1,000 prehistoric and historic inscriptions/rock art that can be seen on all sides and from top to bottom of the sandstone pillar commonly referred to as Pompeys Pillar. Of these, the most famous is that of *William Clark*, carved on the rock on July 25, 1806, during his return trip to St. Louis, Missouri, via the Yellowstone River. Along with the rock art, multiple archeological resources have been discovered during soil disturbing activities throughout the monument and adjacent ACEC. Altogether, the Pillar and surrounding landscape serve as a 200-year time capsule that tells the story of westward expansion, including the settlement of Montana and Yellowstone County. There are few sites throughout the rest of the U.S. with such a complete and complex history.

### PPNM Cultural Resources – Rock art Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair	Declining. Rock art is stable but naturally weathering and has been subjected to vandalism in the past. As the formation weathers, cracks in sandstone form which leads to movement of the formation.

### Rock Art Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
51 Total number of acres in unit	51 Number of acres inventoried for object or value	51 Number of acres found to possess object or value	51 Number of acres monitored (of those possessing object or value)

## Stressors Affecting Pompeys Pillar National Monument – Rock Art

The rock art at Pompeys Pillar is weathering. Natural environmental conditions have caused significant deterioration of etchings and pictographs. In some cases, mass



wasting of the unstable rock has buried rock art. Some of the areas have been subject to vandalism in the past.

### Lewis and Clark National Historic Trail

The Lewis and Clark NHT is approximately 4,900 miles in length extending from Pittsburgh, Pennsylvania to the mouth of the Columbia River, near present day Astoria, Oregon, and follows the historic outbound and inbound routes of the Lewis and Clark Expedition. The purpose of the Lewis and Clark National Historic Trail is to commemorate the 1804 to 1806 expedition through the identification; protection; interpretation; public use and enjoyment; and preservation of historic, cultural, and natural resources associated with the expedition and its place in U.S. and tribal history. The Monument is one of many significant sites along that trail.

#### Lewis and Clark (NHT) – Status and Trend Table

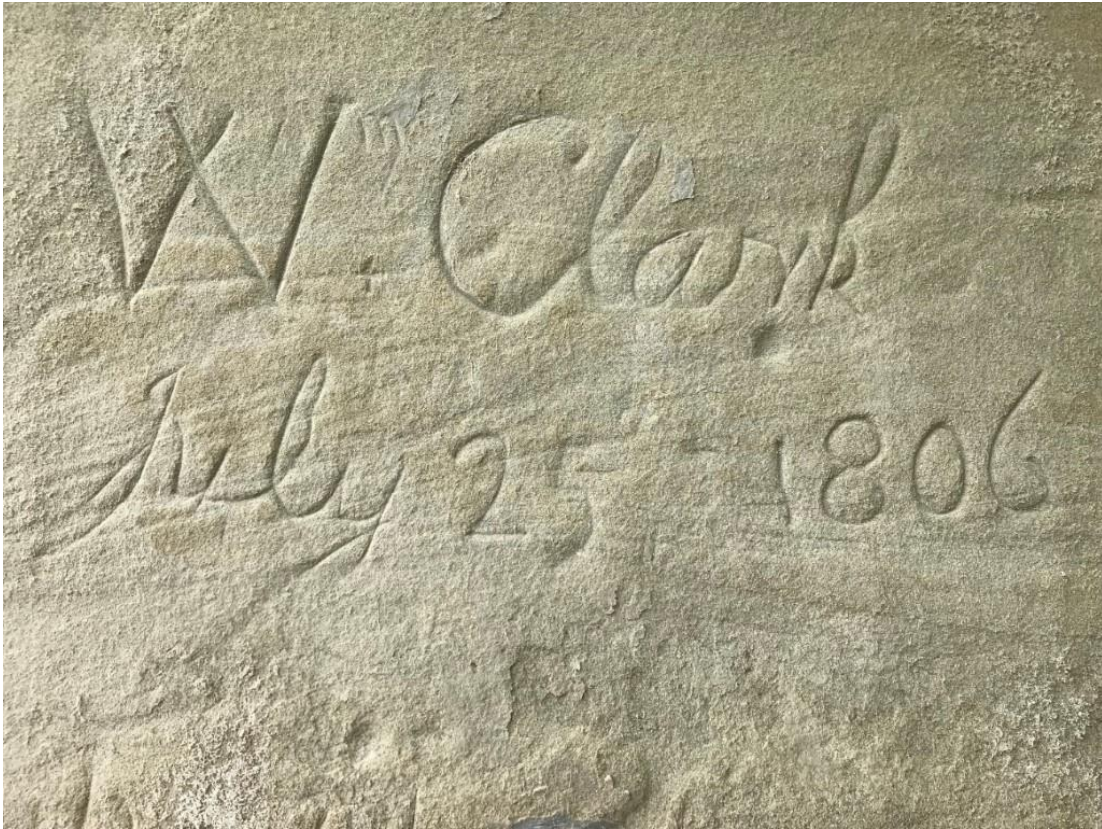
Status of Resource, Object, or Value	Trend
Good	Stable. Working closely with the NPS to administer the trail. This continues to be one of the premier locations along the trail with the only known physical evidence of the Lewis and Clark expedition.

#### Lewis and Clark NHT Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
51 Total number of acres in unit	51 Number of acres inventoried for object or value	51 Number of acres found to possess object or value	51 Number of acres monitored (of those possessing object or value)

### Stressors Affecting Lewis and Clark National Historic Trail

None. The designated route of the Lewis and Clark NHT at PPNM is the Yellowstone River. The actual route used by the Expedition and William Clark at the Pillar is unknown.



William Clark's signature on sandstone

Photo Credit John Reffit

# 5 Summary of Performance Measure

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<b>Resources, Objects, and Values Status Summary Table</b>		
<b>Resource, Object, or Value</b>	<b>Status</b>	<b>Trend</b>
Cultural Resources – Rock art	Fair	Rock art is stable but declining and is naturally weathering and has been subjected to vandalism in the past.
Lewis and Clark National Historic Trail	Good	Improving. More emphasis has been placed on introducing visitors and showing the link between the Monument and the Trail.

# 6 Manager's Letter

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Pompeys Pillar National Monument (PPNM) is part of the BLM's National Conservation Lands which epitomize the remarkable values that public lands have to offer. It is a place that reflects the important mission of the BLM. This year, at PPNM, was unlike any year before. We had some challenges and some opportunities and overall, I felt we rose to those challenges and made the most of it.

We typically see visitors from across this country and around the world as they come to discover one of the most moving chapters in American history. This year, instead of greeting students and travelers we reacted to the global pandemic (Covid-19) and the challenges that it brought and found new ways to connect with visitors. This season, the boardwalk and staircase to the Pillar were closed so that we could evaluate the stability of the sandstone and assess any potential areas for rockfall. The interpretive center was also closed for the entire season due to state directives, our proximity to the interstate highway and volunteers who were not able to serve due to risk of exposure to Covid-19.

We took a proactive approach and worked closely with our Public Affairs staff to post four videos typically only seen at the interpretive center theater, online so that teachers could offer some virtual content for their classes. Public Affairs also played a huge role in assisting our talented staff create three original videos on the unique resources here. A key partner with this effort was the Billings Public Library as we assisted them with their "Exploring Local Series". We also increased our outreach to partner sites (museums and parks) and assisted them with their outreach efforts to the community by provide alternative programming options while also training our seasonal staff about the history in this area.

We look forward to the coming year. As the pandemic eases, we look forward to welcoming new visitors to the site and at the same time, we will strive to provide them a high-quality experience and quite possibly introduce them to another facet of what BLM public lands have to offer. We especially look forward to our continued work in constructing new trails that not only builds on our multiple use mission but increases recreational opportunities for the public. We also look forward in 2021 to building the amphitheater cover, addressing the rock stabilization at the Pillar, and celebrating our 20<sup>th</sup> year as a National Monument. We are also expanding our effort to introduce 4<sup>th</sup> graders to public lands through Every Kid Outdoors and will be developing a virtual tour of Pompeys Pillar that will be available online worldwide.

We are truly grateful for the support from the public, our relationships with community partners, the dedication of volunteers, and our devoted BLM staff. We will continue to look for ways to raise awareness and appreciation both locally and nationally for the BLM's National Conservation Lands. - John A. Reffit



Looking west atop Pompeys Pillar with the Yellowstone River in view

Photo Credit Ann Boucher



**NATIONAL  
CONSERVATION  
LANDS**

# Pompeys Pillar

## National Monument

Eastern Montana/Dakotas District Office  
Bureau of Land Management  
Billings Field Office  
5001 Southgate Drive  
Billings, Montana 59101  
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December 4, 2020

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