NATIONAL CONSERVATION LANDS

Upper Missouri River Breaks

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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Upper Missouri River Breaks

National Monument

Designating Authority

Designating Authority: Presidential Proclamation #7398
Date of Designation: January 17, 2001

Additional Designations

Upper Missouri National Wild & Scenic River
Lewis & Clark National Historic Trail
Nez Perce (Nee-Me-Poo) National Historic Trail

Site Description

The Upper Missouri River Breaks National Monument (Monument/UMRBNM) contains a spectacular array of biological, geological, and historical objects of interest. Located in central Montana between Fort Benton, the nation's inmost port, east to the Charles M. Russell National Wildlife Refuge, the Monument spans 149 miles of the Upper Missouri River, over 377,000 acres of the adjacent Breaks country, and portions of Arrow Creek, Cow Creek, and the Judith River. The landscape has remained largely unchanged since Meriwether Lewis and William Clark traveled through it on their epic journey with the Corps of Discovery over 200 years ago.

Monument Offerings

Upper Missouri National Wild & Scenic River (149 river miles, 135,350 acres)
Lewis & Clark National Historic Trail (149 miles)
Nez Perce (Nee-Me-Poo) National Historic Trail (15 miles)
Cow Creek Wilderness Study Area (34,050 acres)
Antelope Creek Wilderness Study Area (12,350 acres)
Woodhawk Wilderness Study Area (8,100 acres)
Ervin Ridge Wilderness Study Area (10,200 acres)
Stafford Wilderness Study Area (4,800 acres)
Dog Creek South Wilderness Study Area (5,150 acres)
Missouri Breaks Back Country Byway (27 miles)
Judith Landing Historic District
Nelson Homestead Historic District
Francis Hagadone Homestead Historic District
Gist Bottom/Ervin Homestead Historic District
Richard E. Wood Watchable Wildlife Area
Decision Point Interpretive Trail at the confluence of the Missouri and Marias rivers
Old Army Trail: hiking opportunity on the north side of the river at Stafford Ferry

James Kipp Recreation Area: Campground and boat launch, WSR Mile 149
Coal Banks Campground and boat launch, WSR Mile 41.5
Judith Landing Campground and boat launch WSR Mile 88.5
Missouri Breaks Interpretive Center, Fort Benton, WSR Mile 0
119 livestock grazing allotments and about 38,000 AUMs
23 oil and gas leases, covering approximately 22,528 acres

Year Accomplishments

In this COVID 19 year we were able to open the Interpretive Center and all of our recreation sites for public use. We hosted 20% more visitors than last year with less staff. Staff completed NEPA review for our warehouse, a stream crossing on the Missouri Breaks Back Country Byway, Judith River bank stabilization, range permit renewals, and land health projects. We hired five new employees filling key positions in recreation, range, and wildlife, along with two collateral duty range positions. We completed an 11-year review of our RMP, identifying plan maintenance opportunities to maintain the validity and effectiveness of our RMP.

Future Priorities and Opportunities

In 2021 we intend to complete construction of a warehouse within the Fort Benton National Historic Landmark, replacing a house that previously had served as a contact station and storage building. Our contract to update the interpretive space within the Interpretive Center is slated for completion in January 2021; this is the first major upgrade to our exhibit hall in over a decade. Maintaining roads and signs and improving access will be emphasized over the next three years. We also are working to complete large planning efforts geared at rangeland allotment management, and staff and potential partners will be developing protocols for more systematic wilderness study area monitoring.

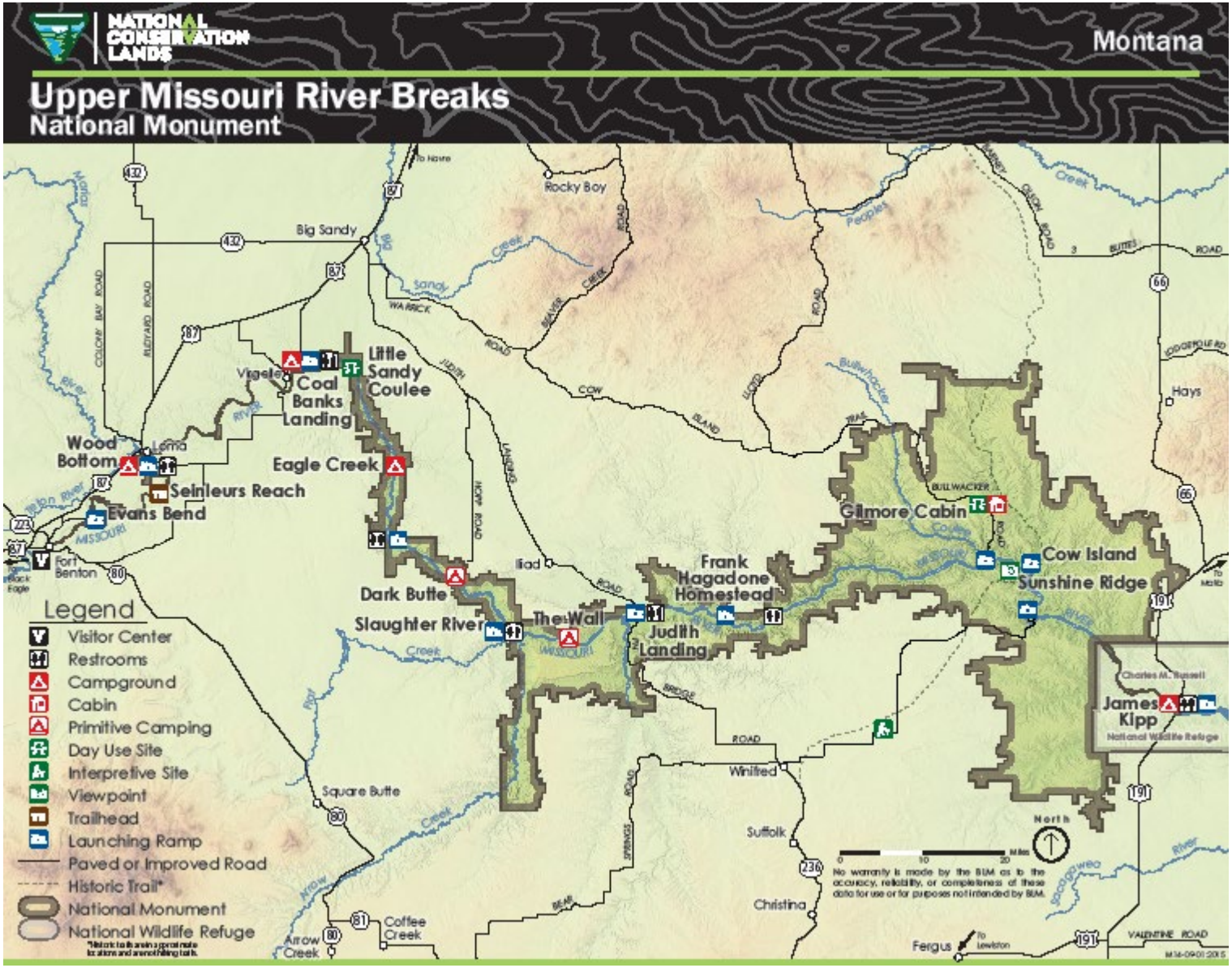
Upper Missouri River Breaks

National Monument

920 NE Main Street
Lewistown, MT 59457
Phone: 406-538-1900

Unit Manager: Zane Fulbright
Site Web Address: https://www.blm.gov/programs/national-conservation-lands/montana-dakotas/upper-missouri-river-breaks

Map of Upper Missouri River Breaks National Monument


NATIONAL CONSERVATION LANDS
Montana
Upper Missouri River Breaks
National Monument
Rocky Boy
Big Sandy
Little Sandy Coulee
Coal Banks Landing
Wood Bottom
Eagle Creek
Seineurs Reach
Evans Bend
Fort Benton
Dark Butte
Slaughter River
The Wall
Judith Landing
Frank Hagadone Homestead
Gilmore Cabin
Cow Island
Sunshine Ridge
James Kipp
Hays
Winifred
Square Butte
Suffolk
Christina
Coffee Creek
Fergus
Legend
Visitor Center
Restrooms
Campground
Cabin
Primitive Camping
Day Use Site
Interpretive Site
Viewpoint
Trailhead
Launching Ramp
Paved or Improved Road
Historic Trail*
National Monument
National Wildlife Refuge
North

1 Upper Missouri River Breaks Overview

Acreage

Total Acres in Unit	377,346
BLM Acres	377,346
Other Federal Acres	0
State Acres*	39,000
Private Acres*	80,000

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

Budget

Budget Title	Code	Funding
Rangeland Management	1020	111,000
Cultural Resources Management	1050	25,000
Aquatic Habitat Management	1160	34,500
Wildlife Habitat Management	1170	26,000
Recreation & Visitor Services	1220	161,000
Recreation Enhancement Fee Program	1232	83,513
Law Enforcement	1630	500
Abandoned Mine Lands & Hazardous Materials Management	1644	1,000
Deferred Maintenance & Capital Improvements	1653	587,595
Monuments & Conservation Areas	1711	284,000
Administrative Support	1820	1,000
Total Budget		**$1,315,108**

The budget spreadsheet captures dollars allocated to complete projects, operate and maintain the Interpretive Center, fund seasonal staff, and award contracts. The allocation also reflects deferred maintenance projects, including construction funding for the Monument warehouse. The spreadsheet does not capture the work month spread for the Monument staff. This year we have included the 1232 funds collected at the Interpretive Center as well as at our three fee campgrounds, river use fees, and outfitter SRP fees.

The following table displays the work months allocated to the Monument staff identified on the Table of Organization. In FY2020 the Montana/Dakotas leadership and budget program chose to fund all employees at 11 work months; prior years every employee was funded for 12 work months. There are several factors not addressed in the table including:

- Staff supporting Monument programs who work for a different field office
- Positions that remain vacant
- Seasonal labor providing support during staffing shortages

Budget Title	Code	Work Months
Rangeland Management	1020	14
Aquatic Habitat Management	1160	7
Wildlife Management	1170	6
Wilderness Management	1210	1
Recreation & Visitor Services	1220	19
Recreation Enhancement Fee Program	1232	1
Oil & Gas Management	1310	1
Resource Management Planning	1610	1
Deferred Maintenance	1653	3
MLR Annual & Operational Maintenance	1660	3
Monuments & Conservation Areas*	1711	36
Range Improvements (PD)	8100	1
Total Work Months		**93**

*Staff in the North Central Montana District, excluding the Monument, were funded with 20 1711 Work Months in FY20.

Current Areas of Focus

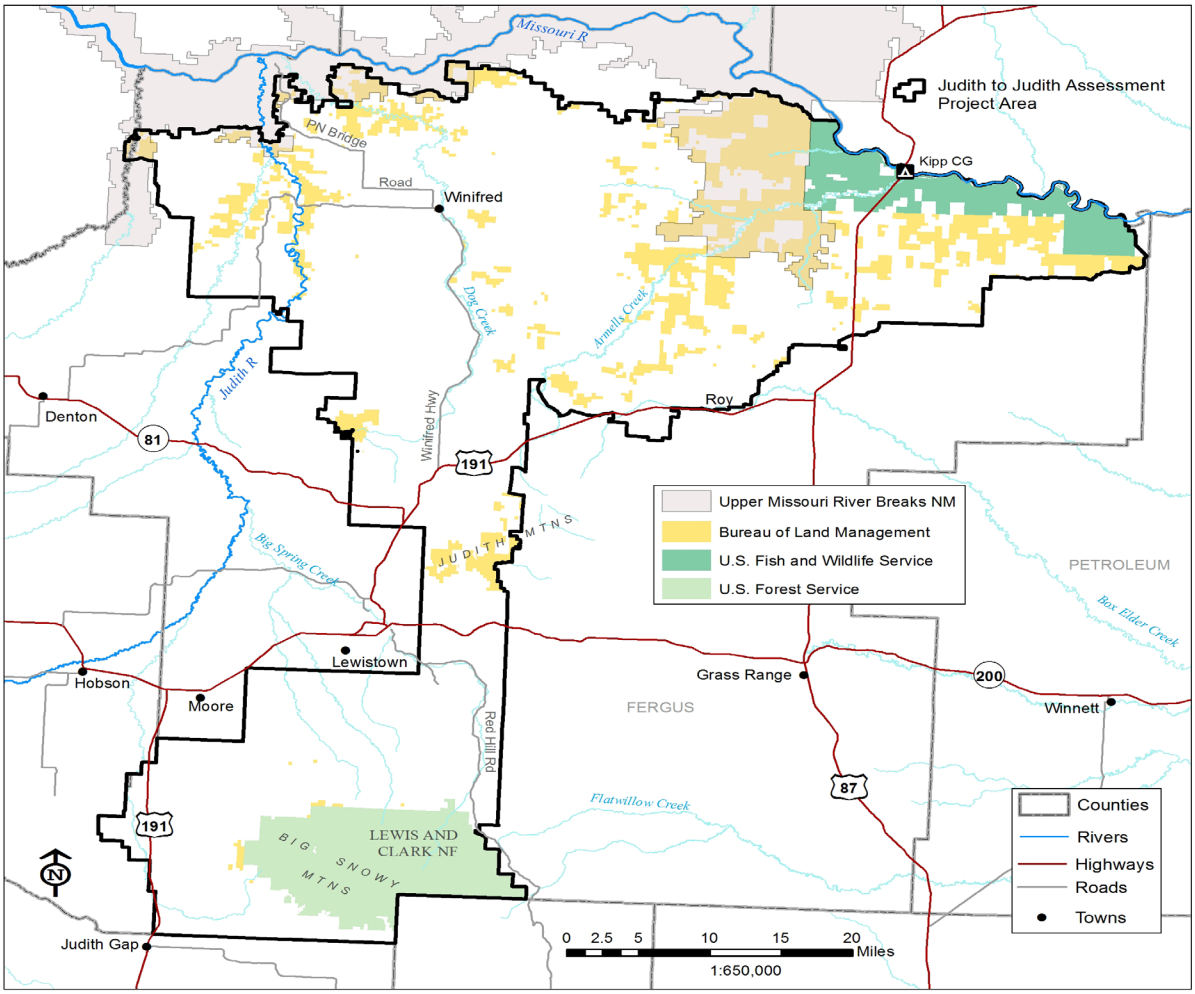
In 2020 we received funding for a new Friends agreement and resumed work on past year projects (riparian habitat restoration and recreation site maintenance). We are working with the Friends to celebrate both of our 20th anniversaries in 2021.

Roger Otstot (Friends board member and volunteer) from our National Trails Day event

Planning and NEPA

The Upper Missouri River Breaks National Monument Record of Decision and Approved Resource Management Plan (RMP) was signed in December 2008. In 2013, we completed an evaluation of the RMP. We completed the eleven-year evaluation of the plan in FY2020. No amendments are needed, but we will complete plan maintenance on several items. We need to correct the map identifying the route of the Nez Perce National Historic Trail, address references to the now-defunct Undaunted Stewardship program, reference current direction for management of wilderness study areas (Manual 6330), and reflect the changes in the number of oil and gas leases and acres leased since that has decreased by almost half since we signed the RMP.

The District has been working on the Judith to Judith Planning Area (J2J) Evaluation Report that involves 117 grazing authorizations covering 111 grazing allotments. Eighty-five allotments are within the Lewistown Field Office (LFO) and 24 are within the Monument. The total planning area covers 1,252,251 acres; the BLM portion covers 167,381 acres, or 13.4% of the planning area. The J2J planning area is bordered by Arrow Creek on the west, the eastern Fergus county boundary on the east, the Big Snowy Mountains to the south, and the Missouri River to the north. We completed the Judith to Judith Evaluation Report (ER) summarizing the results of the assessments this year. The ER documents the land health of the public lands administered by the Bureau of Land Management in the Judith Mountains to Judith River Planning Area (J2J). This is the first in a series of documents: the Evaluation Report (ER), the Authorized Officer's Determination of Standards, and the appropriate National Environmental Policy Act (NEPA) document(s) and subsequent Decision(s). We also completed a categorical exclusion authorizing grazing on all of the allotments meeting land health standards, and we are finalizing the environmental assessment associated with other range improvement projects, unclaimed reservoirs, and vegetation and fuels treatments.



Judith to Judith Planning Area

Staffing

The Upper Missouri River Breaks National Monument has a dedicated staff, as well as staff with shared responsibilities between the Monument and the Havre Field Office (HFO), the Lewistown Field Office (LFO), and the Malta Field Office (MaFO). Staff is based in Havre, Lewistown, Malta, and Fort Benton. The hydrologist, civil engineer, and wildlife biologist are in Lewistown, and the Natural Resource Specialist (Weeds) is based in Havre. The Archeologist located in the HFO, Soil Scientist located in MaFO and Realty Specialist in the LFO provide support to the Monument. This staffing structure is changing; the archeologist position for the Monument has been vacant since 2019 and the Havre archeologist has been providing coverage for the District. The District has established a new Soil Scientist position in Lewistown that will provide service to the Monument. Rangeland Management Specialists in the HFO and LFO coordinate the range program for the Monument. North Central Montana District (NCMD) Support

Services staff provide administrative support. NCMD Fire crews located in Zortman and Lewistown provide fire suppression and fuels support.

In addition to the permanent staff, the invasive species program generally hires three seasonal employees, Cultural Resource program hires one to two seasonals (shared across the district), the Recreation program generally hires six seasonal employees, and the range program hires two seasonal employees that are shared with HFO and LFO. Seasonal volunteer campground hosts staff Coal Banks, Judith Landing, and Kipp Recreation Area.

The following table shows the positions with responsibility in the Monument. Positions in bold are in the Monument Table of Organization. Those highlighted in light orange are those positions currently vacant. Those positions with shared responsibility in the Havre Field Office (HFO), the Lewistown Field Office (LFO), and the North Central Montana District (NCMD) are identified.

The Wildlife Biologist position was vacant all calendar year 2019. It was filled in February 2020. The Rangeland Management Specialist for Havre was filled in July 2020. The Outdoor Recreation Planner position became vacant in December 2019. That position was filled October 2020. We hired the Maintenance Worker, Range Technician, and Rangeland Management Specialist (South Side); they will be reporting in 2021. The Soil Scientist in Malta has been providing coverage for the Monument since 2001. We have created a position in Lewistown that will be serving the Monument; that position is slated to be filled in 2021. The Information Receptionist position will be advertised in January 2021. The Archeologist position has been vacant since 2019; coverage has been provided by the archeologist in Havre.

Position Title	Area of Responsibility	% working in the Monument	Table of Organization
Monument Manager	**UMRBNM**	**100**	**Monument**
Law Enforcement Ranger	**UMRBNM**	**100**	**Monument**
Wildlife Biologist	**UMRBNM**	**100**	**Monument**
Range Technician (CS)	**UMRBNM**	**100**	**Monument**
Outdoor Recreation Planner	**UMRBNM**	**100**	**Monument**
Park Ranger	**UMRBNM**	**100**	**Monument**
Park Ranger (Interpretation)	**UMRBNM**	**100**	**Monument**
Information Receptionist (CS) *vacant*	**UMRBNM**	**100**	**Monument**
Maintenance Worker (CS)	**UMRBNM**	**100**	**Monument**
Civil Engineer	**UMRBNM/Fire**	**80**	**Monument**
Natural Resource Specialist (Weeds)	**UMRBNM/HFO**	**75**	**Monument**
Hydrologist	**UMRBNM/LFO**	**50**	**Monument**
Rangeland Management Specialist	UMRBNM/HFO	75	Havre
Rangeland Management Specialist	UMRBNM/LFO	75	Lewistown
Archeologist *vacant*	UMRBNM/LFO	50	Lewistown
Realty Specialist	UMRBNM/LFO	50	Lewistown
Soil Scientist *vacant*	UMRBNM/LFO	50	Lewistown
Financial Technician	NCMD	20	District
Natural Resource Specialist (Oil/Gas Realty)	NCMD	20	Havre
Legal Instruments Examiner	UMRBNM/LFO	20	Lewistown
Petroleum Engineer	NCMD	20	District
Administrative Support Assistant	NCMD	10	District
Planning & Environmental Specialist	NCMD	10	Lewistown
Safety & Occupational Specialist	NCMD	10	District

2 Programs and Accomplishments

General Accomplishments

The Monument experienced another year of transition in 2020. Staff turnover affected the overall productivity, and we continued to experience changing relationships with our partners.

Due to the pandemic we limited educational opportunities, while keeping the Interpretive Center open. As should be expected, visitation dropped in the Interpretive Center with the lack of opportunity to partner with area schools. Visitation throughout the Monument declined in March and April but increased once Montana's governor lifted out of state travel restrictions. From May through November visitation to the Monument increased beyond what we have seen for the last several years.

The recreation staff monitored Wilderness Study Areas, the Lewis and Clark National Historical Trail, the Nez Perce National Historical Trail, and the Missouri Breaks Back Country Byway. They also renewed and issued 26 Special Recreation Permits; those permits allowed outfitters to get approximately 700 visitors out on the Upper Missouri National Wild and Scenic River.

We completed proactive cultural resource inventories (2300 acres) within the Upper Missouri National Wild and Scenic River and Lewis & Clark National Historic Trail corridors, resulting in the documentation of previously unrecorded historic and prehistoric sites. Collaborative efforts between range and cultural resource staff also constructed protective fencing around several homesteads within the UMRBNM and completed multiple maintenance projects related to these historic resources.

We continue to enhance wildlife habitat in partnership with Montana Fish, Wildlife, & Parks (MT FWP) at Wood Bottom using the Sikes Act authority. Bald eagle numbers and nesting sites in the Monument continue to rise.

Grazing management continues with the ongoing work on major planning efforts; Bears Paw to Breaks on the north side of the river and Judith to Judith on the south side. The environmental assessment was completed in 2019 for Bear Paw to Breaks. Decisions for the Judith to Judith Planning Area are expected to be completed in 2021.

We completed long term riparian monitoring along 20 miles of river and on an additional 19 Multiple Indicator monitoring sites along the Missouri River. The overall trends show in improving riparian plant community.

General Accomplishments Table

	Number of Visitors	Education Participants	Interpretive Center Visits	Interpretive Center Programs	Volunteers	Hours of Volunteers	Acres Inventoried for Cultural Resources	Oil & Gas Leases	Producing Gas Wells
TOTALS	7,265	1,350	2,890	720	72	2,908	2,300	43	3

Education, Outreach, and Interpretation

The Upper Missouri River Breaks Interpretive Center had approximately 2,890 visitors, offered over 720 education and interpretive programs throughout the 2020 season, with more than 1,350 participants. Due to the Covid-19 pandemic there was an approximately 10% decrease in visits to the Interpretive Center and education program participation.

Fish and Wildlife

Key upland habitats were inventoried for Standards of Rangeland Health, for riparian health, greater sage grouse habitat, BLM Designated Sensitive Species, and big game. Monitoring efforts continued for sage grouse habitat and big game winter range. Spring improvements and wildlife escape ramps for livestock watering tanks were maintained and improved where needed.

Most known wildlife populations continue to be stable or expanding, with a few exceptions noted below. Many less glamorous and lesser known species have not been inventoried, but presence continues to be based on regular or occasional observations, and presence of available habitat within established range of the species within the state. Efforts are being made to build a citizen science-based approach to collect data on these lesser known species.

Overall acreage of prairie dog towns has stabilized within the Monument due to above average precipitation years. Areas decimated by plague are re-establishing and new towns have been discovered. Two previously undocumented towns were recorded on the south side of the river and provided to the Montana Natural Heritage Program.

Bald eagle populations nesting along the Upper Missouri River continue to increase annually. Only three nests were active in 2004, while up to 22 nests in 16 territories have now been documented, with most of those territories successfully fledging birds.

Portions of the river corridor were surveyed over multiple days this spring and early summer with 15 of 18 surveyed territories having active nests.

Inventories for unknown lek sites continue, with additional areas surveyed in spring 2020. Overall sage grouse trends have been down over the long term, but we have seen increases in the last three to five years in the Monument and adjacent public lands. One lek experienced the highest count recorded within the Monument with 126 males present. This is approximately double the previous high count for that lek. Monitoring of leks to establish annual population indices and inventories for unknown lek sites continue.

The habitat restoration partnership with MT FWP continues at the Wood Bottom Recreation Area near Loma, Montana. This area is popular with many public users, including hunters and fishermen. Additional updates are included below under *Partnerships*.

Impacts to important wildlife habitat along the Upper Missouri River occur in areas with recreational development and use. Efforts continue to reduce these impacts through timing, design and/or relocation of recreational sites. Close coordination between Recreation, Wildlife and Range staff has allowed for a decrease in recreational conflicts with wildlife and livestock across the UMRBNM.

The pandemic impacted paddlefish season as well. The 2020 paddlefish season for the 1,000 harvest tags on the Upper Missouri River took place this year, but without the opportunity for the unlimited “snag-and-release” licenses. Tag holders could harvest a fish anytime between May 1 and June 15. One thousand harvest tags were issued using a lottery system. All other paddlefish seasons in the state were closed, putting extra pressure on the Upper Missouri River. Several factors led to the decision to alter this season, but the main one was concerns of crowding at camping and fishing sites. Due to the remoteness of this area, almost all anglers camp as part of the experience. The popular BLM James Kipp Campground near Fred Robinson Bridge, sees high use during the season, necessitating herculean efforts on the part of the Monument’ staff to prepare the campground and boat ramp for the onslaught of the paddlefish season. Heavy equipment from the wildlife refuge cleared off the boat ramp, BLM equipment operators graveled and bladed the roads and camping pads, and the Monument recreation staff cleaned and sanitized all recreation facilities to minimize the risk of contamination for visitors and staff.

Paddlefish from the Missouri River

Grazing

The Monument has 119 allotments and about 38,000 AUMs. The Rangeland Management Specialists on both the North and South side of the Missouri River continue to administer grazing permits while providing sound specialist review during discretionary and non-discretionary actions. The Lewistown Field Office completed the Judith to Judith Planning Unit Evaluation Report and permit renewal process. Out of the 111 allotments that were evaluated between 2013 through 2019, 24 allotments fall within the Upper Missouri River Breaks National Monument. The categorical exclusion (CX) authorizing the renewal of those grazing permits was completed in July 2020. No timely protests were filed.

Rangeland Management Specialists continue to coordinate with permittees that have agreed upon grazing systems or allotment management plans within the Monument to ensure resource conditions are meeting standards or making significant progress towards meeting standards. Rangeland Management Specialists and seasonal staff continue to reread and establish new upland trend monitoring. In 2020 upland trend monitoring was conducted on four allotments encompassing over 11,170 acres on the north side of the river.

Sheep Shed Coulee Allotment

A complete list of the grazing allotments within the Monument can be found in the UMRBNM Record of Decision and Approved Resource Management Plan, Appendix F (December 2008).

Oil and Gas

The 43 oil and gas leases on 42,805 acres in the Monument that existed at the time of the Monument's establishment were considered to have valid existing rights based upon the Proclamation. The Proclamation, however, does not allow new oil and gas leases. Some of the leases have expired or have been terminated due to lack of production or maintenance. Currently, 23 leases exist in the Monument, covering 22,528 acres. The following table shows oil and gas production in the Monument since its creation.

Annual Production of Oil and Gas in the UMRBNM

Year	Oil	Gas (mcf)	Injection	Wells	Cumulative Gas
2001	0	82,743	0	4	82,743
2002	0	77,835	0	3	160,578
2003	0	94,917	0	4	255,495
2004	0	194,472	0	5	449,967
2005	0	134,344	0	4	584,311
2006	0	98,909	0	4	683,220
2007	0	97,941	0	4	781,161
2008	0	94,489	0	4	875,650
2009	0	81,465	0	5	957,115
2010	0	94,304	0	6	1,051,419
2011	0	90,702	0	6	1,142,121
2012	0	77,008	0	6	1,219,129
2013	0	64,380	0	6	1,283,509
2014	0	45,277	0	5	1,328,786
2015	0	21,873	0	5	1,350,659
2016	0	22,696	0	3	1,373,355
2017	0	19,131	0	3	1,392,486
2018	0	23,880	0	3	1,416,366
2019	0	18,556	0	3	1,434,922
2020	0	16,327	0	3	1,451,249

Numbers for 2020 production account for production through September 2020. There were no further lease expirations during 2020 as compared to last year's report, however, we are currently working to get the two wells plugged on lease MTM2060 that is currently expired/closed.

Partnerships

Each year, Montana Conservation Corps (MCC) engages youth and veterans ages 16-30 from local communities across Montana and the Dakotas, and from across the country to assist the BLM in completing projects that help protect and promote multiple-use conservation on public lands. This year, we hired two Conservation interns to work in the Interpretive Center, as well as two interns who assisted with river and field operations.

The River & Plains Society has been associated with the BLM since the establishment of the Upper Missouri River Breaks National Wild & Scenic River and lobbied for the creation of the Upper Missouri River Breaks National Monument and associated interpretive center in Fort Benton. While our agreement with the River & Plains Society expired, we continue to maintain a Memorandum of Understanding (MOU) with them that allows us to display their artifacts in the Missouri Breaks Interpretive Center. The Chief Joseph Surrender Rifle is only one of the many artifacts that they graciously allow

the BLM to showcase.

In 2005, the BLM, the City of Fort Benton, and the River & Plains Society established an MOU to highlight the partnership that existed in support of the new Monument. In 2019 we updated that MOU to reflect the changing needs of the partners, including maintenance, staffing, and interpretation at the Missouri Breaks Interpretive Center.

BLM Employees, Montana Conservation Corp Interns, Volunteers and the River and Plains Society of Fort Benton all came together to excavate a historic kitchen in the Birthplace of Montana. Constructed in 1854 the kitchen at the original "Fort Benton" provided employees of the American Fur company a place to butcher game and prepare meals for hungry traders, trappers, and Native Americans until 1869. The U.S army acquired the Fort later that year and shuttered its doors in 1881 when the command moved to Fort Shaw - near present-day Great Falls, Montana.

Throughout the years the River and Plains Society has diligently recreated and reconstructed what the historic Fort would have looked like during the fur trade era. In 2021 the kitchen is slated to return to the landscape but before that the remains of the structure needed to be located and assessed.

BLM staff were asked to lend expertise related to excavation, determine where the building originally was and if anything remained. Utilizing a U.S. Army engineering drawing from 1869 the edges of the building were staked. Excavation units were able to locate a band of soil indicative to the presence of adobe bricks that were used to construct the building in 1854. Rifle shell casings, gun flints, hundreds of hand pounded nails, butchered bone fragments and a slew of other artifacts are currently being cataloged and sorted to plot the exact footprint of the building. This information will aid in the reconstruction of the structure and provide valuable insight into a brief period of time during which Montana was born.

The Friends of the Missouri Breaks Monument increased their involvement with the Monument and continued being active partners in 2020. A new three-year agreement was finalized late in the fiscal year. As a result, the Friends were able to complete efforts to monitor their cottonwood planting success, conduct weekly river patrols to water recently planted cottonwoods, and assist the recreation staff by maintaining campgrounds on their river patrols, and host several river cleanup and interpretation events. The Monument and Friends partnered to host a successful National Public Lands Day event in September at the James Kipp Recreation Area. Work included painting the interiors of the vault toilets, resetting fire rings, removing dead landscaping trees, and clearing brush throughout the recreation area.

National Public Lands Day, James Kipp Recreation Area

In 2015 the BLM and FWP entered into a Sikes Act Habitat Management Agreement for the Wood River Ranch Sikes Act Management Area. This ten-year agreement continues the twenty-year partnership between the agencies that has allowed for limited cultivation within the Monument with the intent of restoring wildlife habitat. In 2019 the BLM and FWP drafted an updated Wood Bottom Habitat Enhancement Management Plan, with proposed cultivation areas, native vegetation restoration plots, areas proposed for seeding, and areas to be chemically treated. The project area contains approximately 1,667 acres; currently about 400 acres are in cultivation, with a goal of reducing that to 200 acres by 2025. In 2020, the two agencies entered into a Cooperative Agreement enabling BLM to provide financial assistance to the project. Funds will be available through 2025 to help successfully complete habitat restoration. Multiple Secretarial Orders (SO) are met as the project advances conservation stewardship and increases outdoor recreation opportunities, including hunting and fishing, for all Americans. Following SO 3347, the project will enhance conservation stewardship, increase outdoor recreation, and improve the management of game species and their habitat. Additionally, the project supports SO 3366 as it enhances recreational user opportunities and experiences on public lands and waters open and accessible to all. BLM collaboration with the state agency, MFWP, also promotes SO 3356.

The BLM and Fergus County maintain an agreement on road maintenance, allowing the BLM to maintain some county roads within the Monument while county road crews maintain certain BLM roads. This agreement provides for efficiency, in that road maintenance crews can focus on roads clustered in geographic areas rather than needing to maintain roads scattered across the county.

The Montana Pilots Association and the Recreational Aviation Foundation continue to

monitor and maintain the six backcountry airstrips in the Monument. In the spring of 2020, they pulled all the visitor logs, replacing them and the windsocks. They also continue to fill ruts and remove encroaching vegetation. In May 2020, they reported a plane wreck on the Left Coulee Airstrip. Fortunately, the pilot and passengers escaped unharmed. The wreckage was removed from the airstrip in July.

Wrecked Plane at Left Coulee Airstrip

Recreation and Visitor Services

Annual visitation to the Monument was recorded as approximately 7,265 visitors which was up 45.3% from that of last year. Outfitters and guides were found to facilitate approximately 15% of the Missouri River use. Many of the boaters this season were navigating canoes, kayaks, and other non-motorized vessels.

This year we were tasked with completing visitor satisfaction surveying for two sites, Coal Banks Landing and the Missouri Breaks Interpretive Center.
This annual visitor satisfaction survey provides the BLM with data for national performance measures required under the Government Performance and Results Act (GPRA) of 1993 for both overall visitor satisfaction and with value for fees paid. This survey also gives BLM site managers vital information on visitor satisfaction with facilities, interpretation/education programs and materials, road/trail maintenance, staff service, and general recreation management. Selected sites are those where the BLM has made an investment to provide recreation opportunities and benefits. One site/area should provide interpretive programming so that the BLM can meet the Departmental requirement in reporting GPRA information on interpretive efforts. While the number of responses was small, due in large part to pandemic-related limitations, enough surveys were completed to provide for solid statistical analysis of each site. Results from the surveys came back in December. Based on these surveys, 98% of Coal Banks site visitors and 100% of Interpretive Center visitors are satisfied overall with visitor information, facilities, management, interpretation/education, staff services, and programs.

BLM reinitiated conversations with FWP and subject matter experts this year to address the Coal Banks boat ramp site and its limited season of use as a jet boat launch site. Conversations and potential solutions will continue into the next fiscal year.

Volunteers

The UMRBNM had over 72 volunteers this season, putting in approximately 2,908 hours of volunteer service. Included in those volunteer numbers was the work of our campground hosts, who assist in overseeing our two busiest campgrounds and boat launching recreation sites.

Friends Volunteers conducting River Cleanup

Volunteers associated with the Friends of the Missouri River Breaks assisted with cleaning and maintaining river facilities, monitoring cottonwood planting sites, and monitoring wilderness study areas.

One volunteer with the Montana Site Stewardship Program continues to monitor the National Register-Listed Gus Nelson Homestead Historic District.

Twenty school age children, six MCC interns and multiple BLM employees worked together on the excavation of the historic Kitchen within the confines of the original footprint of Fort Benton.

Two retired BLM employees worked with our new range and wildlife staff to orient them to resources in the Monument.

Another volunteer, tired of feeling trapped at home during the COVID-19 pandemic, offered to replace Missouri Breaks Back Country Byway signs. So far five signs have been replaced along the route.

Missouri Breaks Back Country Byway

Invasive Species

Seasonal crews provided the labor to accomplish herbicide treatments in and around 18 recreation sites, portions of the Woodhawk, Dog Creek, Antelope Creek and Stafford Wilderness Study Areas, and in upland sites associated with the transportation system. In addition, approximately forty acres of Russian olive and one acre of salt cedar were treated with herbicide injection technology. Biological control agents released for four species of invasive plants were monitored for establishment and efficacy. The unit currently has fourteen established biological control agents (insects) that treat 5 different invasive plants. Seasonal crews conducted over two hundred acres of Early Detection and Rapid Response (EDRR) monitoring and removal for salt cedar, common tansy, and purple loosestrife. Most EDRR treatments were manual in nature. Invasive Species staff also began inventories along the transportation system and river corridor to compare to previous inventories and baseline data in preparation for updating the unit's invasive species management plan.

Realty

The UMRBNM currently administers 155 active realty case files. This also includes 36 active/pending easements for conservation, recreation and/or access. Since all film permits are closed after completion, they are not reflected in the above totals. On average the UMRBNM processes 2-3 film permits on an annual basis. The UMRBNM did not process any film permits in FY2020; however, this may have well been due to the COVID-19 pandemic and related travel restrictions.

The Monument is working with The Conservation Fund on a potential 317-acre acquisition. This parcel, in addition to being in the Monument, is also within the Upper Missouri National Wild and Scenic River corridor and the Lewis & Clark National Historic Trail. The parcel would provide access from the Missouri River to 400 acres of public land currently inaccessible to the public. The environmental assessment will be completed early in 2021.

Proposed Land Acquisition

Riparian

Due to Covid-19 related cancellations, the BLM and the Friends of the Missouri Breaks Monument (Friends) were unable to host their annual spring joint cottonwood planting event. Instead, the focus for the Friends and BLM partnership shifted towards data gathering and site maintenance.

In addition to the cottonwood restoration project, Monument staff continued to monitor riparian habitat along the Missouri River using long-term photo points and vegetation condition summarizations. Crews maintained the Woodhawk, Pablo, and the Cow Island riparian exclosures.

Contractors completed 19 Multiple Indicator Monitoring (MIM) assessments along the Missouri River. This year's data was compared to that collected in 2012 and 2013. Though the level of improvement varied from location to location, the data comparison showed in overall positive trend towards more riparian vegetation cover and increased woody composition.

Riparian Vegetation Recovery
(2012 on the left and 2020 on the right)

Engineer/Facility Management

In 2019 we began design work for a new warehouse, replacing a 100-year old house that had been serving as a storage building for river gear as well as office and interpretive/exhibit supplies. Because this lot is situated in the heart of the Fort Benton National Historic Landmark, coordination efforts with the City of Fort Benton and the Montana State Historic Preservation Office (SHPO) have ensured that the new building will be a compatible design and will fit in with the 1880's architectural styles of the town. The warehouse's façade, facing Fort Benton's historic Front Street and levee, gives the appearance of three smaller historic businesses. Construction began in July 2020 and is anticipated to be completed early in 2021.

Fort Benton Warehouse Rendering

Law Enforcement

The Monument law enforcement ranger was proactive in developing community relations. He met with local ranchers and discussed issues that they were having with trespass hunters and off-road use. He instructed at a local sheriff office reserve program and participated in the community hunter education class. He also assisted in patrols in the Butte and Lewistown field offices, as well as detailing to the Northern Cheyenne Indian Reservation, San Diego in the midst of the COVID-19 pandemic and infected cruise ship passengers, and also to Oregon to assist during the wildfire emergencies. Our ranger received an Unsung Hero award for his COVID-19 assignment in California.

Cultural Resources

In 2020 we completed 2300 acres of proactive Section 110 inventory. This proactive inventory includes areas both along the wild and scenic river corridor and the Uplands near Ervin Ridge area. This project focused on the areas which had received little to no Class III inventory in the past and have yielded high concentrations of prehistoric sites, some containing dateable material. BLM anticipates receipt of the final report in early 2021.

In addition to the Section 110 inventory, BLM has undertaken a collaborative inventory along with the U.S Fish and Wildlife Service in the Antelope Creek Area. This inventory was a Class II level based off a complex slope analysis for upwards of 10,000 acres jointed managed by BLM and USFWS and similarly to the Ervin Ridge 110 project has yielded high site densities.

BLM Employees, Montana Conservation Corp Interns, Volunteers and the River and Plains Society of Fort Benton formally excavated a historic kitchen constructed in 1854. The kitchen at the original "Fort Benton" provided employees of the American Fur company a place to butcher game and prepare meals for hungry traders, trappers, and Native Americans until 1869. The U.S army acquired the Fort later that year and shuttered its doors in 1881 when the command moved to Fort Shaw - near present-day Great Falls, Montana. Following a period of disrepair and neglect the kitchen was removed and salvaged sometime before 1895. This excavation yielded typical kitchen related items, butchered bone, utensils and a few oddities such as rifle shell casings.

We undertook a comprehensive historic building assessment for two structures (Gist and Cable Homesteads) utilizing expertise from the USFS Historic Preservation Team. These assessments will assist BLM in determining appropriate stabilization and reconstruction techniques for these two unique sites. Protective fencing was also installed and/or replaced at several homesteads which will help to further protect them.

Soil Resources

The Soil Scientist provided support for various other program activities (grazing permit renewals, range improvement projects, road relocation, and reclamation) to ensure soil resources were protected, maintained, and/or improved. Soil design features and mitigation measures were identified during the planning of projects and will be implemented to minimize soil impacts. The Soil Scientist provided oversite for the reclamation of a decommissioned road at Butch Reservoir.

Butch Reservoir Road Reclamation

Fire and Fuels

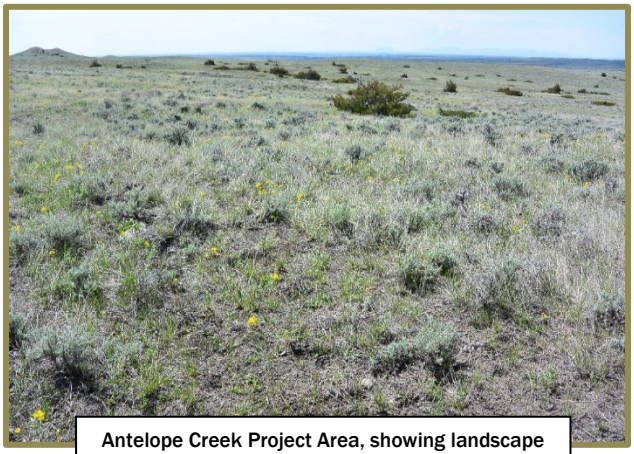
Fire activity in the Monument was light in 2020. Overall, there were six fires for a total of 6.2 acres on BLM-managed lands.

- **Bench Coulee** – lightning-caused on June 23; 1 acre in size.
- **Lloyd** – lightning-caused on June 24; 4.8 acres in size.
- **Stafford –** lightning-caused on August 3; 0.1 acre in size.
- **Antelope –** lightning-caused on August 3; 0.1 acre in size.
- **Sourdough Creek –** Lightning-caused on August 3; 0.1 acre in size.
- **Power –** Lightning-caused on August 21; 0.1 acre in size.

Wildfire Suppression efforts in the Monument

Antelope Creek Mechanical Project

- The purpose of the Antelope Creek Mechanical Project is to treat vegetation mechanically to protect Greater Sage-Grouse (GRSG) habitat and to reduce predation by raptor/corvid on GRSG.
- There are two signed cooperative agreements with bordering landowners. BLM is actively working with DNRC to treat State of Montana lands within the project area.
- The east side of the unit (2,882 acres) will be accomplished using the fire crew. In 2020, the NCMD fire crew hand thinned approximately 500 acres.



Antelope Creek Project Area, showing landscape prior to conifer removal.

- The west side of the unit (3,509 acres) will be treated under a service contract. The base unit (976 acres) was completed in 2020. The additional 2,533-acre unit has been awarded and will be completed in 2021.

Antelope Creek Prescribed Burn

- The purpose of the Antelope Creek Prescribed Fire is to restore a healthy, diverse, fire-resilient ecosystem by reducing stand densities, conifer encroachment, and fuel loads. When a plant community does not burn at adapted intervals or severities (the fire regime), changes occur to the system. Currently the project area vegetation is overstocked, with high suseptibility to high severity wildfire as well as insect and disease outbreaks. Conifer encroachment into native grasslands is reducing available forage and species diversity.
- The BLM has partnered with U.S. Fish & Wildlife Service, Charles M. Russell National Wildlife Refuge and will utilize a cooperative agreement with ajoining private landowners to treat 8,530 acres (3,007 of which are BLM-managed lands in the Monument) in 2021.

Pre-treatment condition of Antelope Creek Prescribed Burn area.

3 Science

Science

As a result of the COVID-19 pandemic, fewer institutions and partners were able or willing to travel to conduct research in the Monument. Macalester College, who has been conducting paleontological and geological research in the Missouri River Breaks for over twenty years, for the first time was unable to bring students from Minnesota.

As part of a statewide survey BLM is partnered with MT Natural Heritage Program, and Northwestern Energy in completing annual monitoring of woodland bird species along the Upper Missouri River, providing BLM with baseline data to manage this critical habitat type. The inventory will provide baseline information for future management decisions.

The MT FWP and U.S. Fish and Wildlife Service continue to survey endangered Pallid Sturgeon numbers, to document success of stocking efforts and recruitment of young fish into the population. There are 110 fish with radio telemetry tags; remote stations monitoring then are set up along the river at Fort Benton, Loma, and Judith Landing.

The MT FWP with funding by Northwestern Energy is expanding their study with radio telemetry, to determine importance of the Judith River to sauger and other designated sensitive species. There are remote stations set up throughout the upper Missouri River, and on the Teton and Marias Rivers.

Two established monitoring sites (2019) were revisited for the U.S. Agriculture Research Service (ARS) to help evaluate long term establishment of biological control agents released to treat leafy spurge and to help determine environmental factors that may have affected population establishment and efficacy.

4 Objects and Stressors

The Proclamation that established the Upper Missouri River Breaks National Monument did not explicitly define the objects of the Monument. The objects identified below were identified in the Resource Management Plan as "Natural Resources on BLM Land, Upper Missouri River Breaks National Monument."

Where possible acres have been identified; some of the objects, however, have not been mapped and therefore some tabular data is incomplete.

Wildlife

Prairie Dogs

Status of Prairie Dogs	Trend
Fair.	Stable, with periodic die-offs being offset by rapid recovery on good precipitation years. Two previously-undocumented towns recorded on the south side of the river.

Stressors Affecting Prairie Dogs

Status of prairie dog population within the monument fluctuate depending on precipitation/drought and exposure to Sylvatic plague.

Bald Eagles

Status of Bald Eagles	Trend
Good. New nests are found almost every year, with successful fledging of young.	Improving. 15 of 18 surveyed territories in 2020 have active nests. In 2004 there were three active nests.

Stressors Affecting Bald Eagles

Most of the river recreation sites were established in stands of cottonwood. Cottonwoods are the only trees suitable for eagle nests on the Upper Missouri River.

Greater Sage-Grouse

Status of Greater Sage Grouse	Trend
Fair.	Improving. Inventories for unknown lek sites continue, with all Monument leks surveyed in spring 2020. Sage grouse trends have been down over the long term, however, lek count numbers have seen increases in the last 3 – 5 years in the Monument and adjacent public lands.

Stressors Affecting Greater Sage Grouse

Factors unrelated to land management decisions in the monument including West Nile Virus, drought, extreme spring rain/snow, hail, and land use changes outside the Monument have affected breeding success, survival, and recruitment of sage grouse.

Migratory Birds

Impacts to migratory bird habitat along the Upper Missouri River are still occurring and increasing with recreational projects being planned for river-associated woodland habitat.

Migratory Birds Status and Trend Table

Status of Migratory Birds	Trend
Fair.	Unknown as baseline data is not available.

Stressors Affecting Migratory Birds

Recreationists may disturb breeding and nesting birds within these woodland communities.

James Kipp Recreation Area

The James Kipp Recreation Area is a campground at the terminus of the 149-mile UMNWSR. The 210-acre site is surrounded by lands managed by the U.S. Fish and Wildlife Service, Charles M. Russell National Wildlife Refuge. Although the existing recreation area is located on Corps of Engineers land, the BLM has a long-term lease to manage the recreation area which includes a boat ramp and fish cleaning station, campsites, potable water, sewage dump station and vault toilets.

James Kipp Recreation Area Status and Trend Table

Status of Object	Trend
Good. Maintenance of the campground has improved the visitor experience and safety.	Improving.

James Kipp Recreation Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
210	210	210	210

Stressors Affecting James Kipp Recreation Area

Visitor use can stress the infrastructure, creating maintenance of toilets, tables, benches, fire rings. Invasive plants are persisting due to disturbance from flooding and recreational use. Natural cottonwood mortality is occurring throughout the recreation area. The presence of snags in the campground causes safety concerns, necessitating annual hazard tree removal.

Upper Missouri National Wild and Scenic River (UMNWSR)

Congress designated 149 miles of the Upper Missouri River as a component of the National Wild and Scenic River System in 1976 calling it an irreplaceable legacy of the historic American West. Congress further stated that the river, with its immediate environments, possesses outstanding scenic, recreational, geological, fish and wildlife, historic, cultural, and other similar values. BLM was directed to preserve the Upper Missouri River in a free-flowing condition and protect it for the benefit of present and future generations. Many of the items listed in this document are the same objects that were used to determine the significance and need for the Wild and Scenic designation.

UMNWSR Status and Trend Table

Status of Object	Trend
Good.	Stable.

UMNWSR Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
135,350	135,350	135,350	135,350

Monitoring tends to focus on the river corridor, rather than those areas where the wild and scenic river boundary extends miles away from the river itself.

Stressors Affecting UMNWSR

The spread of invasive plants and the removal of native vegetation continues to stress the vegetative setting of the wild and scenic river. Integrated Weed Management (IWM) treatments serve to control this stressor. Ice damage from flooding affects manmade structures more than natural features, but still can damage vegetation along the river. However, long term riparian vegetation monitoring has shown a slow improvement over the last 20 years across much of the BLM managed portion thanks in-part to improved grazing management.

Cow Creek Area of Critical Environmental Concern

This area contains a High Potential Route Segment of the Nez Perce National Historic Trail, high scenic quality (VRM Class I and II), and important paleontological resources.

Cow Creek Area of Critical Environmental Concern Status and Trend Table

Status of Object	Trend
Good. Six miles of road have been closed since 2009. This area is a ROW avoidance area. One oil and gas lease (183 acres) is in the area.	Improving.

Cow Creek Area of Critical Environmental Concern Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
14,270	14,270	14,270	14,270

Stressors Affecting Cow Creek Area of Critical Environmental Concern

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants.

Cow Creek Wilderness Study Area

This WSA covers 34,050 acres on the north side of the Missouri River and 21,590 acres have been recommended as suitable for wilderness designation. The size of the area, opportunities for solitude and primitive recreation, and the attractiveness of the setting combine to provide excellent wilderness quality. A diversity of recreational opportunities makes this area excellent for primitive recreational use, and a four-mile-long sheer wall of sandstone is an outstanding scenic feature.

Cow Creek Wilderness Study Area Status and Trend Table

Status of Object	Trend
Good.	Improving. Road density is decreasing throughout the WSA.

Cow Creek Wilderness Study Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
34,050	34,050	34,050	34,050

Stressors Affecting Cow Creek Wilderness Study Area

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants.

Stafford Wilderness Study Area

This WSA covers 4,800 acres on the north side of the Missouri River. More than 90 percent of the WSA is within a rugged portion the UMNWSR corridor. This WSA contains isolated areas that offer outstanding opportunities for solitude but does not contain outstanding primitive recreation opportunities.

Stafford Wilderness Study Area Status and Trend Table

Status of Object	Trend
Good.	Improving. All previously existing road segments in the WSA have been identified as closed.

Stafford Wilderness Study Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
4,800	4,800	4,800	4,800

Stressors Affecting Stafford Wilderness Study Area

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants.

Ervin Ridge Wilderness Study Area

The WSA covers 10,200 acres on the north side of the Missouri River, and 5,061 acres along the southern boundary of the WSA are within a wild segment of the UMNWSR corridor. The area is very scenic and rugged, combining steep slopes with narrow ridges.

Ervin Ridge Wilderness Study Area Status and Trend Table

Status of Object	Trend
Good. All identified roads that existed within the WSA at the time of designation have been closed.	Improving.

Ervin Ridge Wilderness Study Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
10,200	10,200	10,200	10,200

Stressors Affecting Ervin Ridge Wilderness Study Area

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants. With the limited public access in this area, these stressors are having minimal impact.

Dog Creek South Wilderness Study Area

The WSA is on the south side of the Missouri River and contains 5,150 acres; 3,902 acres are within the UMNWSR corridor. The small size of this area, along with terrain that opens to major off-site influences just beyond its boundaries, limit the opportunities for outstanding solitude to isolated areas in the deeper drainages.

Dog Creek South Wilderness Study Area Status and Trend Table

Status of Object	Trend
Good. All of the roads within the wild and scenic river corridor have been closed.	Improving.

Dog Creek South Wilderness Study Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
5,150	5,150	5,150	5,150

Stressors Affecting Dog Creek South Wilderness Study Area

Off road travel, particularly during hunting season (this area is known to be home to trophy bighorn sheep), could create unauthorized routes, which in turn increases the potential for the spread of invasive plants. The actual potential for unauthorized off-road travel is low given landownership patterns and adjacent private lands with restricted access.

Woodhawk Wilderness Study Area

This 8,100-acre WSA is on the south side of the Missouri River. About 3,500 acres of the WSA are within the UMNWSR corridor. None of the WSA was recommended as suitable for wilderness designation due to a combination of the unit's small size, a cherry-stemmed road running through the WSA, and several resource conflicts. It has a high potential for natural gas reserves. The WSA has colorful broken topography, and several prehistoric occupation sites are in the area. During the steamboat era, woodhawkers (wood cutters) cut timber to fuel steamboats plying the Missouri River. The Nez Perce Indians traversed the area in their attempt to escape to Canada in 1877.

Woodhawk Wilderness Study Area Status and Trend Table

Status of Object	Trend
Good.	Stable.

Woodhawk Wilderness Study Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
8,100	8,100	8,100	8,100

Stressors Affecting Woodhawk Wilderness Study Area

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants. Grazing trespass could impact the WSA; active existing and new permittees in the area can address this.

Antelope Creek Wilderness Study Area

The WSA covers about 12,350 acres on the north side of the Missouri River and 9,600 acres have been recommended for wilderness. This WSA offers outstanding opportunities for solitude and provides a diversity of primitive recreational opportunities

such as hiking, photography, hunting, and rock climbing. The area is rich in historical significance, including Kid Curry's Outlaw Hideaway.

Antelope Creek Wilderness Study Area Status and Trend Table

Status of Object	Trend
Good. Road density has been reduced in the WSA, including one road identified in the RMP as open is now inaccessible. Landowner permission has been required to access the open road; the adjacent landowner fenced the property boundary.	Improving.

Antelope Creek Wilderness Study Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
12,350	12,350	12,350	12,350

Stressors Affecting Antelope Creek Wilderness Study Area

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants. The lack of naturally occurring wildfire in the WSA has led to changes in native vegetation patterns. A prescribed burn proposed for 2021should help "reset" vegetation that will benefit wildlife species dependent on open sagebrush vegetative communities.

Lewis and Clark National Historic Trail

The Lewis and Clark Trail was designated a segment of the National Historic Trail System in 1978. The expedition passed through the Missouri Breaks area in May 1805 and on the return trip in July 1806. Lewis writes about the "white cliffs" and the "breaks" in his journals as the expedition traveled and camped along the Missouri. It is one of the few landscapes along the entire Lewis and Clark National Historic Trail that has remained relatively unchanged since the Lewis and Clark Expedition passed through this area.

Lewis and Clark National Historic Trail Status and Trend Table

Status of Object	Trend
Good.	Stable.

Lewis and Clark National Historic Trail Inventory, Assessment, Monitoring Table

Miles in Unit	Miles Inventoried	Miles Possessing Object	Miles Monitored in FY
149	149	149	149

Stressors Affecting Lewis and Clark National Historic Trail

Visitor use, from camping to souvenir collecting, can impact the trail. Livestock grazing can affect visitor experience along the trail. Invasive plants replace native vegetation that occurs along the trail and can impact visitor experience.

Nez Perce (Nee-Me-Poo) National Historic Trail

The Nez Perce National Historic Trail, which crosses the Missouri River Breaks, was designated a component of the National Historic Trail System in 1986. The 1,170-mile route was used by the Nez Perce Indians in an attempt to escape to Canada in 1877. Their escape was marked by more than 20 battles and skirmishes. The Cow Island skirmish, which occurred in the Missouri River Breaks on September 23, 1877, was the last encounter prior to the Nez Perce surrender at the Battle of the Bear Paw just north of the Breaks.

Nez Perce (Nee-Me-Poo) National Historic Trail Status and Trend Table

Status of Object	Trend
Good.	Stable.

Nez Perce (Nee-Me-Poo) National Historic Trail Inventory, Assessment, Monitoring Table

Miles in Unit	Miles Inventoried	Miles Possessing Object	Miles Monitored in FY
18.5	18.5	18.5	3

Stressors Affecting Nez Perce (Nee-Me-Poo) National Historic Trail

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants.

Cow Creek and Cow Island Skirmish sites were listed in the National Register of Historic Places. Both sites are highly significant to National and Tribal (Nez Perce) histories and are key points along the congressionally designated Nez Perce National Historic Trail.

Upper Missouri National Wild and Scenic River Watchable Wildlife Area

The entire UMNWSR was designated a Watchable Wildlife Area in 1990 because of the unique and diverse wildlife populations that abound along the river. Visitors come from around the world to view the wildlife.

UMNWSR Watchable Wildlife Area Status and Trend Table

Status of Object	Trend
Good.	Stable.

UMNWSR Watchable Wildlife Area Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
135,350	135,350	135,350	135,350

Stressors Affecting Upper Missouri National Wild and Scenic River Watchable Wildlife Area

Off road travel, particularly during hunting season, could create unauthorized routes, which in turn increases the potential for the spread of invasive plants and the potential degradation of wildlife habitat.

Missouri Breaks Back Country Byway

The Missouri Breaks Back Country Byway was designated in 1993. The Byway has more than 75 miles, (38 miles on BLM), of gravel and unimproved roads that traverse portions of the Missouri River Breaks and lead to scenic overlooks of the UMNSWR. The Byway passes in and out of the Monument.

Missouri Breaks Back Country Byway Status and Trend Table

Status of Object	Trend
Fair.	Stable. Routes are maintained. Some signs have been replaced. Middle Two Calf Crossing is closed, limiting one of the alternate routes.

Missouri Breaks Back Country Byway Inventory, Assessment, Monitoring Table

Miles in Unit	Miles Inventoried	Miles Possessing Object	Miles Monitored in FY
27	27	27	27

Stressors Affecting Missouri Breaks Back Country Byway

The Monument's landscape continues to be shaped by erosive forces, which in turn affects the stability of the transportation system. Stream crossings and ridge roads need constant maintenance. Slumps and flood events continue to impact the byway and have limited or blocked access in some areas. Middle Two Calf Creek crossing has been closed for two seasons due to erosion and slope failure. We currently have an engineering design to restore access and the NEPA has been completed; construction is slated for 2021. Reestablishing the Middle Two Calf Creek crossing should result in a positive change in trend status. Seed from invasive plants being introduced via contaminated equipment and vehicles is a threat that we continue to address.

Homesteading

Most of the Missouri River bottom was homesteaded during the early part of the 20th century or left federal ownership through the Stockraising or Desert Land Acts. The Breaks contains the remains of several early agricultural developments on BLM land. The Ervin, Gist, Hagadone, and Nelson homesteads have standing structures that are listed in the National Register of Historic Places and are within the UMNWSR. The Gilmore and Cable homesteads are within the Missouri Breaks, but outside the UMNWSR boundary.

Homesteading Status and Trend Table

Status of Object	Trend
Good.	Stable.

Homesteading Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
Unknown	70,000	2,000	1,000

Stressors Affecting Homesteading

Historic buildings need regular maintenance. Visitor use and the elements gradually wear down the resources. While most of the homesteads have been identified in the Monument, additional inventory may yield previously undocumented historic properties.

Gilmore Cabin

A comprehensive historic building assessment was undertaken for the UMRBNM identifying needs for structures managed within the confines of the UMRBNM. All standing structures have been assessed and identified for stabilization efforts with multiple buildings receiving treatments. A five-year plan identifies buildings that will require extensive stabilization efforts as opposed to annual maintenance. Assessments for two structures (Gist and Cable Homesteads) were completed utilizing expertise from the USFS Region One Historic Preservation Team. These assessments will assist BLM in determining appropriate stabilization and reconstruction techniques for these two unique sites. Protective fencing was also installed and/or replaced at several homesteads which will help to further protect them.

Fur Trade and Forts

Immediately following the Lewis and Clark Expedition, fur traders, primarily based out of St. Louis, began working their way up the Missouri to secure furs, either through trapping or through trade with the Indians. In addition, two Canadian-based British companies had established fur trade in the northern Great Plains and northern Rocky Mountains. With the influx of settlers and fur trappers to the area, Indian tribes, primarily the Blackfeet, kept the area in peril thus delaying the establishment of trading posts. In 1831, Fort Piegan was established at the mouth of the Marias. Many of the forts were short-lived, fluctuating with the trade relationship with the Blackfeet. In 1847, Fort Clay was established and was soon renamed Fort Benton. This fort became the most important trading center in what was to become Montana and was the head of the navigation on the Missouri River.

Fur Trade and Forts Status and Trend Table

Status of Object	Trend
Fair.	Stable.

Fur Trade and Forts Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
Unknown	Unknown	Unknown	0

Stressors Affecting Fur Trade and Forts

No fur trade era standing structures exist; archaeological ruins may remain, but they are susceptible to bank erosion. No monitoring has been identified specifically for these locations; however, future Class III inventory may yield results which demonstrate potentially significant intact remains are present. At that time monitoring and potential excavation plans would be developed.

White Rocks Historic District

This is a collection of natural features and cultural sites encompassing the White Rocks region of the Missouri River. A special feature included within the White Rocks Historic District is some historical graffiti. The U.S.S. Mandan was a government snag boat which worked on the Missouri from the 1880s to 1910. One of the crewmen aboard this ship painted “USS Mandan” in a grotto near Eagle Creek. The historic period graffiti is still visible.

USS MANDAN historic graffiti

White Rocks Historic District Status and Trend Table

Status of Object	Trend
Good.	Stable.

White Rocks Historic District Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
1,000	100	1,000	100

Stressors Affecting White Rocks Historic District

Much of the historic district is on private land, and its condition is unknown. Because the area is so remote there are few stressors other than the forces of nature and visitor use, which is dispersed and light.

Dauphin Rapids Historic District

This area was known as a dangerous stretch of river for steamboats and was often referred to in their historic accounts. Located at river miles 100 – 104, Stafford Ferry is situated just upriver from this feature.

Dauphin Rapids Historic District Status and Trend Table

Status of Object	Trend
Good.	Stable.

Dauphin Rapids Historic District Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
40	0	40	0

Stressors Affecting Dauphin Rapids Historic District

The National Register eligibility of this historic district has yet to be determined. A county road passes just north of the district; impacts from visitors and road maintenance have the potential to impact the site. Riverbank erosion has the potential to impact the edge of the district.

Cow Island Trail

This early trail was part of the transportation network which supplied the Montana gold fields in the 1860s and 1870s. Steamboats moved freight up the Missouri River to Fort Benton and bull trains distributed the goods. The Cow Island Trail was used to freight supplies from Cow Island to Fort Benton when the river was too low for boats to reach Fort Benton.

Cow Island Trail Status and Trend Table

Status of Object	Trend
Good.	Stable.

Cow Island Trail Inventory, Assessment, Monitoring Table

Miles in Unit	Miles Inventoried	Miles Possessing Object	Miles Monitored in FY
12	12	12	0

Stressors Affecting Cow Island Trail

Portions of the trail along Cow Creek form the route of the Nez Perce National Historic Trail and are no longer open to motorized use. Those areas can be difficult to identify due to lack of use and periodic flood events. The trail leaves the creek bottom and traverses above the breaks to the west and becomes a maintained, and eventually county road. Erosion and general use can impact this segment of the route.

Areas of Geologic Interest

Eagle Sandstone Formation

A light gray to buff colored coarse-grained sandstone with ferruginous concretions. It was deposited as beach and barrier facies during regression of an inland sea that covered the central area of the North American Continent during the Cretaceous Period. The formation derives its name from, and is located on, Eagle Creek at its confluence with the Missouri River. It weathers to form statuesque features, arches and hoodoos. Some of the natural features carved from this formation are Eye of the Needle (collapsed, 1997), Hole in the Wall, Steamboat Rock and Seven Sisters.

Location: White Rocks portion of the UMNWSR, from Virgelle to Arrow Creek.

Judith River Formation

Gray to Yellowish, massive sandstone interbedded with silty mudstones and lignites containing a wide variety of fossil flora and fauna. It formed as a lagoonal deposit when there were many river deltas and tidal flats on the edge of the transgressing Bearpaw sea during late Cretaceous time. It is an abundant source of petrified wood and invertebrate fossils, and extensive vertebrate bone beds also exist. Some duck bill dinosaur finds from this formation are on display at the Museum of the Rockies in Bozeman, Montana.

Location: The formation is named for and located at the mouth of the Judith River.

Bearpaw Formation

Dark gray to black thinly bedded shale with calcareous concretions. It was deposited in the deepwater environment of the Cretaceous sea. It is a source of marine shellfish fossils known as ammonites and baculites. Marine reptiles called plesiosaurs and masosaurs have also been found.

Location: The exposed formation starts in the Cow Creek area and extends downstream to Fort Peck Dam.

Hell Creek/Lance Formation

Dark gray to red and green sandstones, siltstones, carbonaceous shales and lignites are present. They were deposited in a lowland area after the last regression of the Cretaceous-age Bearpaw sea. These are the latest Cretaceous-aged rocks exposed in the sequence of fossilized beds and are the source of the T-Rex specimens (not from the Monument) on display at the Museum of the Rockies.

Location: Lower Missouri River Area including the adjacent Charles M. Russell Wildlife Refuge.

Alkalic Intrusions

These fine-grained igneous rocks, dominated by dark-colored minerals occur as dikes, sills and stocks injected into fractures in the Cretaceous Age sandstones and shales. They range in age from Tertiary to late Cretaceous. They are more resistant to weathering than the enclosing sedimentary rocks causing them to form promontory features in the surrounding terrain. Some of these that have been named along the river are Dark Butte, LaBarge Rock, Citadel Rock and Pilot Rock. Some of the natural features north of the river are Eagle Buttes, Birdtail Butte and Chimney Rock.

Location: From the Bears Paw Mountains on the north to the Highwood Mountains on the south. They occur throughout the Missouri Breaks but are more visible in the White Cliffs area due to the color contrast.

Saskatchewan Butte

An erosional remnant of a volcanic vent rising about 200 feet above the surrounding terrain located on federal land. The Butte is about 10 acres in size and has potential for gemstone occurrence. It is typical of other features described as the Missouri Breaks Diatremes in numerous professional papers and mineral reports prepared by the U.S. Geological Survey and Bureau of Mines.

Location: North side of the Missouri River near Bull Creek.

Areas of Geologic Interest Status and Trend Table

Status of Object	Trend
Good.	Stable

Areas of Geologic Interest Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
377,346	10,000 (est'd)	377,346	100

Stressors Affecting Areas of Geologic Interest

The Monument's landscape continues to be shaped by erosive forces, as evidenced by the collapse in 1997 of the Eye of the Needle. Permitted paleontological research continues in the Monument; little illegal excavation is anticipated, and none has been encountered.

Areas of Biological Interest

Diversity of Vegetative Communities

The combination of Missouri Breaks and Missouri River vegetation communities results in an impressive variety. The Missouri Breaks is a unique landscape composed of mostly timbered coulees and drainages leading from the higher plains down to the Missouri or its tributaries. These timbered draws are composed of ponderosa pine and/or Douglas fir with a smaller component of Rocky Mountain juniper. An understory of various native grasses and forbs exists. Ridge tops and benches in the area support the sagebrush/prairie grassland communities typical of the Northern Great Plains/Northern Rockies.

River communities show a wide variety of vegetative types with some examples being cottonwood gallery forest types, green ash climax type, silver sagebrush and black greasewood types and many others. Unlike the more extensive bottomland forests of the middle and lower Missouri River, cottonwood forests in the Upper Missouri River Breaks National Monument are relatively small, often discontinuous stands of predominantly older trees. Though the riparian areas within the Monument are in proper functioning condition, they are being compromised by flow regulation and natural disturbances such as ice scouring. Flow regulation effect is particularly evident in the reach of the Upper Missouri from Fort Benton to Judith Landing where very limited recruitment of new forest has occurred in recent years. Ice scouring in March 2019 eliminated stands of young (less than ten-year-old) cottonwoods on the lower stretch of the river. If current trends continue, the amount of cottonwood forest on the Upper Missouri will decrease in the future. To restore pockets of native vegetation, restoration and planting efforts have occurred in many of the campgrounds along the river corridor. Additionally, riparian exclosures and improved grazing management has

allowed localized cottonwood regeneration following the 2011 flood event to survive and establish a new generation.

Areas of Biological Interest Status and Trend Table

Status of Object	Trend
Fair.	Declining.

Areas of Biological Interest Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY
377,346	377,346	377,346	1,560

Stressors Affecting Areas of Biological Interest

The Monument's landscape continues to be shaped by erosive forces, which in turn affects riparian habitat. Drought, recreation, invasive plant encroachment, wildlife, and livestock pressure can create widespread and/or localized stress. Cottonwood galleries continue to be affected by regulated stream flows caused by river management associated with hydroelectric generation, irrigation management, downstream river navigation, and flood control.

5 Summary of Performance Measure

Objects Status Summary Table		
Object	**Status**	**Trend**
Upper Missouri National Wild & Scenic River	Good	Stable
Cow Creek Area of Critical Environmental Concern	Good	Improving
James Kipp Recreation Area	Good	Improving
Cow Creek Wilderness Study Area	Good	Improving
Stafford Wilderness Study Area	Good	Improving
Ervin Ridge Wilderness Study Area	Good	Improving
Dog Creek South Wilderness Study Area	Good	Improving
Woodhawk Wilderness Study Area	Good	Stable
Antelope Creek Wilderness Study Area	Good	Improving
Lewis & Clark National Historic Trail	Good	Stable
Nez Perce (Nee-Me-Poo) National Historic Trail	Good	Stable
Upper Missouri National Wild & Scenic Watchable Wildlife Area	Good	Stable
Missouri Breaks Back Country Byway	Fair	Stable
Homesteading	Good	Stable

Objects Status Summary Table		
Object	**Status**	**Trend**
Fur Trade and Forts	Fair	Stable
White Rocks Historic District	Good	Stable
Dauphin Rapids Historic District	Good	Stable
Cow Island Trail	Good	Stable
Areas of Geologic Interest	Good	Stable
Areas of Biologic Interest	Fair	Declining
Wildlife (Mammals/Birds/Fish)	Fair-Good	Stable-Improving

6 Manager's Letter

The Upper Missouri River Breaks National Monument continues to experience change and transition. In 2019 we experienced ice damage and flooding, and in 2020 we adapted to a COVID-19 cultural shift. Greeting guests with masked faces and the scent of disinfectant, we kept our Interpretive Center doors open to socially-distance visitors. As the general public sought safe recreation and tourism outlets, the Monument's public lands, camp sites, and wild and scenic river experienced greater visitation than what we have seen in several years. Our depleted staff scrambled, successfully, to maintain safe and clean recreation sites, and offered customer service that ensured the recreating public know their public lands are in good hands.

In FY 2020, we said goodbye to our Outdoor Recreation Planner, we hired a Wildlife Biologist, Outdoor Recreation Planner, Maintenance Worker, and transferred the Hydrologist and Civil Engineer onto our staff. We look forward to adding more quality staff in FY2021 to fill the remaining vacant positions.

We were successful in revitalizing an agreement with Montana Fish, Wildlife, and Parks, and entering into a new agreement with the Friends of the Missouri Breaks Monument. We also updated our Memorandum of Understanding with the City of Fort Benton and the River & Plains Society, both BLM partners since the wild and scenic river was established. With the help of our partners and volunteers we were able to continue managing the land and provide quality experiences for Monument visitors.

In 2020 we continued upgrading exhibits at the Interpretive Center, broke ground on a warehouse that complements Fort Benton's historical district, began analyzing the benefits of a proposed 317-acre acquisition in the wild and scenic river corridor, began analyzing what it will take to expand the season of use of our most popular boat ramp, and have initiated new staff to the wonders of the Monument.

In a few short months we will celebrate the 20th Anniversary of the creation of the Upper Missouri River Breaks National Monument. With our partners and visitors, we look forward to a year of commemorative events highlighting the resources that make this landscape spectacular and celebrating where we hope to be in another twenty years.

Upper Missouri River Breaks

National Monument

North Central Montana District Office
Bureau of Land Management
920 NE Main Street
Lewistown, MT 59457
Phone: 406-538-1900

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