DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

GREG GIANFORTE, GOVERNOR
1539 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE: (406) 444-2074
FAX: (406) 444-2684
PO BOX 201601
HELENA, MONTANA 59620-1601

FINAL ENVIRONMENTAL ASSESSMENT

Project Name:	Forsyth-Yellowstone Right Bank Levee Flood Mitigation Project
Proposed Implementation Date:	2023
Proponent:	Town of Forsyth
Location:	46.266465, -106.69026
County:	Rosebud County

I. TYPE AND PURPOSE OF ACTION

The purpose of the project is to protect public health and safety from flooding of the Yellowstone River. The goal of the project is to complete improvements and modifications for the levee along the Yellowstone River Right bank (RB) adjacent to the Town of Forsyth (Town), as detailed in the System Wide Improvement Framework (SWIF) report (KLJ 2019) which assessed the Forsyth-Yellowstone River Right bank Levee system (system). The system borders the right bank (south side) of the Yellowstone River and is protective of the Town's approximately 2,154 residents. In addition to surrounding residences, the Forsyth Fire Department, Rosebud County Library, Rosebud Health Care Center, Rosebud County Sheriff's Office, Forsyth Town Hall, Rosebud County Courthouse, three (3) Schools, ten (10) Churches, other commercial properties, and water and wastewater infrastructure are also at risk, which are vital to the local economy.

The project also addresses the critical need to protect the water quality in the Yellowstone River from the Cartersville Diversion Dam to the Powder River. This section of the Yellowstone River is listed on the State's 303d list, and the project will help preserve valuable source water for municipalities, irrigation, and riparian areas in the Yellowstone Basin. Appendix A of the SWIF report includes maps depicting the Town, critical infrastructure, and levee system.

The system is comprised of 2.43 miles of levee, 159 feet of floodwall (levee Station (STA) 65+00 to 66+59), two reinforced concrete retaining walls (STAs 50+48.5 to 51+19 and 66+37 to 67+65), and two sandbag closure structures (one closure structure spans old U.S. Highway 10 at approximate levee STA 0+40 and the other closure structure spans the BNSF Railway tracks at levee STA 3+45). These components are shown in Appendix A of the SWIF report. The Town is the project sponsor.

The SWIF report defined the levee system involved; identified deficiencies and improvements and how those improvements optimize flood risk reduction; described interim risk measures, if any; and identified the agencies involved in the SWIF process and their roles.

The system was rated "Unacceptable" in 2013 and was no longer eligible for rehabilitation assistance in the United States Army Corp of Engineers (USACE) P.L. 84-99. The "Unacceptable" ratings were first received in August 2010. The Town submitted a SWIF Letter of Intent (LOI) to the USACE because of the ratings requesting two years of temporary P.L. 84-99 eligibility while a SWIF was developed. The LOI was accepted by the USACE on September 21, 2012. The SWIF report was

submitted in January 2019. Failure to repair the system would remove the levee's FEMA certification as an accredited levee, which would significantly impact property owners. Residents and businesses located behind the levee with a federally backed mortgage would be required to carry flood insurance at the high-risk premium. The USACE issued an Inspection Report (2016) for the system documenting identified Minimally Acceptable (M) and Unacceptable (U) deficiencies. These deficiencies are shown on a map provided in Appendix B of the attached SWIF report.

At the time of the SWIF report, the Town had made significant progress to address the deficiencies. Several deficiencies have been resolved since the 2013 Inspection Report was completed. Appendix B of the SWIF Report contains a table listing all the deficiencies affecting eligibility and a column for the corresponding completion date or future completion date. The following is a summary of deficiencies affecting eligibility and steps the Town has taken to correct them.

- The Town conducted a survey of the entire levee right-of-way. Multiple deficiencies were found not to be in the right-of-way and have been reported as completed.
- Starting in 2013, the Town conducted vegetation removal to remove the majority of encroachments caused by vegetation listed in the USACE 2016 report. The remaining vegetation was estimated to be removed by 2021, according to the SWIF report.
- The high ground where the levee ties into the upstream tieback has been degraded. An engineering consultant was contracted by the Town to analyze the freeboard requirements. The irrigation pipe through the drainage structure (STA 90+50) has been removed.
- Erosion and embankment caving is being monitored by the Town.
- All culverts were inspected with CCTV in 2017 and are being reviewed by a professional engineer.
- A plan was formulated for the sluice/slide gates. No mitigation has occurred on this deficiency.

To continue addressing the deficiencies of the system, this project proposes to make system-wide improvements to the encroachments, closure structures, erosion/bank caving, culvert/discharge pipes, and sluice/slide gates associated with the levee system. Repair and modification of the system will be the most protective alternative for public health and safety and minimize potentially adverse effects on the environment. These improvements generally include:

- Relocation of various items outside of the levee right-of-way;
- Improved protection to the railroad lines and interstate crossing;
- Rebuilding levee embankments;
- Repair and stabilization of sections of the levee where erosion and bank caving have occurred;
- Inspecting and evaluating culverts and discharge pipes;
- Removal, repair, and replacement of culverts and discharge pipes; and,
- Designing and constructing a replacement for slide gates.

DNRC will approve the grant to provide funding for the Forsyth-Yellowstone Right Bank Levee Flood Mitigation Project.

II. PROJECT DEVELOPMENT

1. **PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:**
   Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

The project has been presented at Town meetings and made available for public comment. The Town has been coordinating with the respective risk management, emergency response, and land use functions of each of the relevant maintaining agencies.

The Town has also been working with the Montana Silver Jackets. During the early phases of the SWIF development, the Silver Jackets Team assisted in hosting conference calls and webinar style meetings. The purpose of these meetings was to allow the USACE, State of Montana, and the Town to work together on development of the SWIF. Information was discussed and shared through these meetings including meeting minutes, copies of USACE policies, contact information, document templates, and discussion of priority repairs. Any SWIF updates are being discussed quarterly with the Montana Silver Jackets Team.

The Town co-hosted a meeting with Montana DNRC (Floodplain Program), Rosebud County, and Town officials on August 23, 2016, to help facilitate a discussion regarding the Forsyth levee and to help the community understand FEMA's mapping process. Collaboration will continue through these agencies as deficiencies and improvements are made to the levee.

The Town has worked with Rosebud County, who has provided grants for removing Russian Olive Trees.

The SWIF report indicated that the Town would provide required background information to USACE Omaha District to support any required environmental consultation and to coordinate with the federal, state and local agencies, along with other interested parties for modifications to the levee. This will include working with the USACE Montana Regulatory Office. Significant interagency collaboration between the Town and USACE has occurred and will be ongoing. Collaboration between the Readiness Branch, Levee Safety, and Regulatory Divisions of the USACE is anticipated.

A property owner, Even Brewer, located south of the west end tie-in and across I-94, has agreed to allow the Town of Forsyth to use a hill for borrow material in case of a flood emergency.

For the west end tie-in analysis, MDT and BNSF will have inputs as to what needs to be done to meet the freeboard requirements.

Every two weeks the Forsyth Town Council meets and a standing item on the agenda is the status of the levee. The inspection reports from the USACE are discussed at these meetings, and the status of the overall levee is given by Town staff. Meetings are open to the public and public comment is encouraged. Agendas are posted in various locations around town, and meeting minutes are available to the public upon request.

The Town is working with Keith Raymond, Disaster & Emergency Services Coordinator of Rosebud County, to have a written response, communication, and emergency plan in place.

DNRC will post a draft of this Environmental Assessment for public comment for 30 days on the DNRC – Public Notices webpage. In addition, the MEPA Coordinator will provide a letter of notice for public comment to the applicant for posting in a local newspaper or website outlet.

For any comments submitted by the public, the MEPA Coordinator will review and work with the Grant Manager and applicant to adequately address those comments.

---

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:
Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

The Town will coordinate with the Omaha District Levee Safety Program for evaluation and mitigation alternatives or possible as-is approval and integration in the O&M manual. Rectification work, other than regular maintenance activities, will be coordinated with Levee Safety for technical reviews and Section 408 authorizations.

Any alteration to the levee system will require a Section 408 alteration request which includes a National Environmental Policy Act (NEPA) component. Additionally, projects that may impact the waters of the United States (WOUS) will include coordination with the USACE Regulatory Office (Helena, MT) for Section 401/404 coordination. Future work by the Town on the levee will also require Section 408 and Section 404 permitting.

The Town and USACE have an original project Cooperation Agreement in place. This agreement (dated January 13, 1944), states that the Town is responsible for operation and maintenance of the flood control project as published under Title 33, Part 208.

Alterations to the Forsyth-Yellowstone RB Levee System will follow policy guidance under Section 408 to USACE for review and approval prior to construction. Alterations will include analyzing the levee closure at the west end tie-in to the Railroad and possibly relocating the tie-in to the Highway/Railroad overpass approximately one-half mile east of current tie in location. Agreements for the relocation will need to be in place with the County, State, and Railroad. Other modifications will include repairing and maintaining the "Unacceptable" and "Minimally Acceptable" deficiencies called out in the USACE 2016 Inspection Report. The environmental permitting will be completed with the Montana State Regulatory office and the USACE. All alterations to the levee will be included in an addendum to the O&M.

DEQ has jurisdiction over the public water supply and compliance of this project and DEQ approval of plans and specifications of the project is pending, but DEQ has indicated approval is imminent.

---

3. ALTERNATIVE DEVELOPMENT:
Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why. Include the No Action alternative.

Alternative 1: Proposed levee improvements included ongoing routine maintenance, corrective actions, inspections, evaluations, and remedial actions associated with the noted deficiencies. The deficiencies will be corrected to optimize flood risk reduction. Improvements include the following:

- Continued survey of right-of-way along the west end of the levee up to the closure structures.
- Conduct a feasibility study for relocating the west end levee tie-in to the east near Highway 12.
- Erosion and embankment caving is occurring between STA 52+00 and 71+50. A field investigation will be conducted for the erosion areas. After the investigation is completed, the Section 408 Alteration process outlining the proposed repairs will begin.
- The culvert conditions are being evaluated to determine if the culverts are acceptable or unacceptable based on USACE guidelines. If the pipe is found to be acceptable, no further action will be required beyond normal operation and maintenance (O&M) protocol. If the pipe is in unacceptable condition, it will need to be removed or repaired depending on the conditions.
- The slide gate at STA 2+55 was observed during the USACE 2016 annual inspection of the levee and found to be non-compliant with the USACE design standards. The Town will contract with an engineering firm to submit a Section 408 Alteration package showing what will be the new proposed gate design. The current slide gate is operable and is in use by the Town.

The Detailed Budget Narrative calls for improvements to the encroachments, closure structures, erosion/bank caving, culvert/discharge pipes, and sluice/slide gates. The details from the narrative are as follows:

Encroachments
Several encroachments in the levee right-of-way must be removed, including buried phone lines, utility poles, fences, access ramp, fallen trees, guy wire anchor, and several other items. The budgeted funds will allow the Town's engineer to work with the property owners to relocate items outside the levee right-of-way. Engineering and other costs associated with removing the encroachments will be split equally between the ARPA grant and Town funds.

Closure Structures
The railroad removed a portion of the levee to add additional rail lines. The rail lines are approximately 5.5 feet below the levee system. A plan to block off the railroad lines (during flooding) and rebuild some of the levee embankment must be initiated. The same situation applies to the Interstate 94 crossing. Design and implementation of raising the levee approaches and blocking of the Interstate will be designed. It is anticipated that the closure structures will require extensive coordination with BNSF and the Montana Department of Transportation (MDT). Engineering and construction costs of upgrading the closure structures and repairing the Levee will be split equally between the ARPA grant and Town funds.

Erosion/Bank Caving
The project will repair and stabilize sections of the levee where erosion and bank caving from the Yellowstone River have occurred. It is anticipated that riprap (sized to withstand the 100-year flood event) will be placed along 2,500 feet of the levee embankment. This line item's engineering and construction costs will be split equally between the ARPA grant and Town funds.

Culvert/Discharge Pipes
The Town's engineer will inspect and evaluate the culverts and discharge pipes to determine if they are acceptable based on the rating criteria included in the USACE Inspection Checklist. If the pipes are in unacceptable condition, they will need to be removed or repaired depending on the

conditions. The inspections and reports will be submitted to USACE for review. This line item's engineering and construction costs will be split equally between the ARPA grant and Town funds.

Sluice/Slide Gates
The slide gate at STA 2+55 was observed during the USACE annual inspection of the levee and found to be non-compliant with the USACE design standards. The Town's engineer will design a replacement for the slide gates and submit the design to the USACE for Section 408 approval. This project includes all design, permitting, and construction of the slide gates, and the cost will be covered with the ARPA grant and Town funds.

Alternative 2: The SWIF report identified an Interim Risk Reduction Measures Plan (IRRM). While this IRRM is critical for work to be completed until the levee repairs and modifications are finalized, this IRRM as a standalone will be considered Alternative 2. From this plan:

During flooding events, the Town will utilize the Town's Public Works Department and the County staff to monitor the levee system and report field conditions. If needed, the Town has access to 5,000 sandbags. In addition, the Town has a list of local contractors able to supply heavy equipment if emergency construction measures are needed to address a problem with the levee or other public infrastructure. One local contractor (Prince, Inc.) is located a quarter-mile from the west end tie-in and has adequate equipment required to address emergency issues.

Encroachments
Multiple encroachments are present within the levee which include building, utilities, fences, landscaping and other miscellaneous items. Homes and other outbuildings were constructed within 15 feet of the levee toe in several locations designated as landside seepage berms. Several of these encroachments could present both seepage and flood fighting issues. No seepage has been observed on the levee, but continuous monitoring of seepage performance will be completed on the encroachments within 15 feet of the levee toe. If encroachments are being moved during a potential flood, the Town has a list of local contractors able to supply heavy equipment and clay material.

Closure Structures
If freeboard requirements are not met for the west side, the levee will be monitored during high water events. As mentioned earlier, the Town has a list of local contractors able to supply heavy equipment and clay material.

Erosion/Bank Caving
A riprap protection plan between Stations 52+00 and 71+50 will be developed and implemented. The implementation of riprap during high water events will be monitored by the Town's Public Works Director. Heavy equipment will be onsite for the installation of riprap and local contractors will be able to supply clay material. The Town is currently in negotiation with landowners to secure excess clay and rock material needed for this flood fighting event. This area is southwest of town near the west tie-in. The Town has excess concrete material in town that can be used. This was approved by the USACE for another temporary option on riprap. Another option the Town has is to work with local contractors to haul rock material from Melstone, Montana located 60 miles northwest of Forsyth.

Erosion/bank caving from the Yellowstone River is occurring along a portion of the levee. The extent of the erosion will be studied further to determine the cause of the erosion, and plans will be developed outlining proposed repairs. Section 408 Alteration process will commence.

Culverts/Discharge Pipes
Internal inspections of all pipes have been completed using television camera videotaping or visual inspection methods. All pipes that are in questionable condition will be monitored by the Town staff during a high-water event. When a high-water event occurs, the deficient pipes will be plugged or filled in with concrete to avoid backwater from the high river heights coming back into the Town.

Sluice/Slide Gates
The gate was observed during the USACE annual inspection of the levee. The gate is currently in use and operable.

No Action: In the event no actions were taken, the Town, including its residents and businesses, may be at risk of significant damage should flooding of the Yellowstone River destabilize and breach the existing levee. Should the levee fail, and floodwater sweep through Forsyth, chemical contaminants from the Town's wastewater system, gas stations, light industrial facilities, mechanic's shops, garages, and welding shops would be washed into the Yellowstone River. The project will eliminate the deficiencies identified by the USACE, significantly reducing the likelihood of floodwater breaching the structure.

Failure to repair the system would also remove the levee's FEMA certification as an accredited levee, which would significantly impact property owners. Residents and businesses located behind the levee with a federally backed mortgage would be required to carry flood insurance at the high-risk premium.

Proposed Alternative: After analyzing the costs and benefits of each alternative, it was determined that Alternative 1 would meet the project goals most effectively. With Alternative 1, these improvements generally include: Relocation of various items outside of the levee right-of-way; improved protection to the railroad lines and interstate crossing; rebuilding levee embankments; repair and stabilization of sections of the levee where erosion and bank caving have occurred; inspecting and evaluating culverts and discharge pipes; removal, repair, and replacement of culverts and discharge pipes; and designing and constructing a replacement to slide gates.
The proposed Alternative 1 for levee repairs and modifications will be the most protective alternative for public health and safety and minimize potentially adverse effects on the environment, and is therefore the selected course of action.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.

The project area is located along the right (south) bank of the Yellowstone River. The NRCS Web Soil Survey indicates that the soil consists of approximately: 70-percent of Glendive loam; and 30-percent of Havre loam; both of which are at 0- to 2-percent slopes and occasionally flooded. The

project area has already been disturbed and altered anthropogenically.

Glendive loam is considered a Hydrologic Soil Group B and is well drained with a moderately high to high capacity to transmit water. Havre loam is considered a Hydrologic Soil Group B and is well drained with a high capacity to transmit water. Both are moderately corrosive to concrete and highly corrosive to steel. Glendive loam provides prime farmland if irrigated, and Havre loam provides farmland of statewide importance.

The Montana Bureau of Mines Geologic Map of the Forsyth 30' x 60' Quadrangle, Eastern Montana (Vuke et al. 2001) indicates that the project is located above Quaternary alluvium (Holocene) (Qal) and Quaternary Alluvial terrace deposit (Holocene and Pleistocene) (Qat). Qal is described as "Light-brown and gray gravel, sand, silt, and clay deposited in stream and river channels and on flood plains. Clasts are well rounded to subrounded. Deposits are poorly to well stratified. Thickness as much as 26 ft under flood plain of Yellowstone River and less than 13 ft under flood plains of tributaries." Qat is described as "Light-gray to light-brown gravel, sand, silt and clay in terrace remnants at elevations from 2 to 350 ft above rivers and streams. Along the Yellowstone River unit includes colluvium and a few small alluvial fan deposits. Clasts are generally well sorted and most are well rounded. Deposits are poorly to well stratified and poorly to well sorted. Thickness generally less than 15 ft, but locally as much as 50 ft."

Proposed Alternative and No Action –No direct or indirect impacts to the soil/geology as the construction of the levee improvements and modifications will occur in areas where the levee already exists and will have little to no impact on suitability of the soil. The project proponent will restore any disturbed areas along the length of the project to preexisting conditions, or improved conditions.

---

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.

Surface water exists along the Yellowstone River to the north of the project, and along a creek adjacent to the west end of the project. Storm runoff would be typical of residential and commercial areas.

The USGS operates a gaging station (USGS 06295000 Yellowstone River at Forsyth Montana) on the Yellowstone River. Data exists from water years 1922 to current. Gage height at this station varies from approximately 1 1/2 to 12 feet, corresponding to discharges ranging from approximately 3,000 to 80,000 cfs. High flow periods are typically recorded from May through July, with low flow periods observed November through March.

Nearby groundwater wells indicate static water levels (SWLs) range from approximately 7 to 12 feet below ground surface (bgs). Most of the wells indicate shallow groundwater exists in sand and gravel. Bedrock depths vary from approximately 30 to 70 feet bgs.

The identified system-wide improvements and correction of unacceptable deficiencies of the levee are designed to optimize flood risk reduction. The preferred alternatives will address the identified deficiencies that are preventing unconditional participation in the P.L. 84-99 program. The preferred alternatives will have positive impacts on the 2,154 residents who reside in the Town of

Forsyth, and who benefit from the flood protection offered by the levee. Any alterations to the levee will require a Section 408 submittal to USACE, as well as the following environmental permitting: 310 Permit, SPA 124 Permit, Sections 401 and 404 Permit and NEPA process, MPDES General Permit and Rosebud County Floodplain Development Permit. An individual 404 permit from the USACE and a 124 permit from FWP will be required to complete the bank stabilization project.

Proposed Alternatives – Potentially direct and indirect, beneficial impacts to water quality, quantity, and distribution. Implementing the system-wide improvements will optimize flood risk reduction of the Yellowstone River into the Town. Downstream water quality will benefit if the river does not breach the banks and inundate the Town. The project does not intend to pump or inject groundwater from or to the aquifer, and no impacts to the area's groundwater resources and aquifers are expected to be impacted by the measures. Potentially direct and indirect, adverse, minor to major, short- to long-term, local and regional impacts to water quality, quantity, and distribution will be addressed through the permitting process. It is presumed these potential impacts would be mitigated by the contractor.

It is presumed that any necessary stormwater discharge for the project will be covered under an MPDES Construction General Permit (CGP) and a Stormwater Pollution Prevention Plan (SWPPP), and the appropriate permits for working in and around the floodplain or State Waters will be acquired as listed above.

No Action – Potentially direct and indirect, adverse, moderate to major, short- and long-term, local and regional impacts to water quality, quantity, and distribution. The potential for floodwater to destabilize the levee and breach, releasing water into the surrounding community, could pose a significant risk to surface water or groundwater. Contaminants and pollutants, refuse, or other material may be mobilized or leached into the surface water or groundwater.

---

6. AIR QUALITY:

What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

The proposed project is not located in an air quality Attainment Area, as set by the U.S. Environmental Protection Agency's National Ambient Air Quality Standards. The project area is not listed as impaired in air quality particulates per the Montana DEQ Air Quality Nonattainment Status list (Montana DEQ Air Quality Website visit). The Brewer Pit, operated by Prince, Inc., is the nearest Montana Air Quality Registered Portable Facility. EPA facilities listed within 1/2 mile of the project for air pollution include Prince, Inc. and Fuels Reduction Services.

Proposed Alternatives – Potentially direct and indirect, adverse, minor, short-term, local impacts to air quality as there may be some dust introduced to the environment from construction activity and/or exhaust fumes from operation of heavy construction equipment.

No Action – No impacts to air quality. Without heavy construction equipment operating during the project, exhaust fumes will not change above preexisting conditions.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.

The project area is surrounded by approximately 94% private lands (estimated using the Montana Natural Heritage Program website), with the remaining 6% on various types of public lands (Bureau of Land Management; Montana Fish, Wildlife and Parks; Local Government). The project area is primarily within Human Land Use (33%; 27% of which is Developed), Wetland and Riparian Systems (19%), Grassland Systems (18%), Forest and Woodland Systems (13%), Shrubland, Steppe and Savanna Systems (8%), and Recently Disturbed or Modified (8%; see Montana Natural Heritage Program report at the end of this document to view other land cover types, or the MTNHP website). There are 22 plant Species of Concern listed for Rosebud County that may potentially occur within the project area (Montana Natural Heritage Program website).

The project area is primarily within a developed, residential and commercial area and contains only a minimal amount of farmland or agricultural land. No areas of critical environmental habitat exist in the project area. Several mapped Freshwater Emergent Wetlands are located within a mile of the Town, along the Yellowstone River, including one in the West Rosebud State Park. Maintained lawns for residences and parks do exist near the project area. The levee was constructed between 1947 & 1948 and has not been used for agricultural operations. The USDA NRCS Web Soil Survey shows that some of the soil in the area of the levee are classified as soils of Statewide Importance and Prime Soils if Irrigated.

Proposed Alternatives – Potentially direct, adverse, minor to moderate, short-term, local impacts to vegetation cover. Efforts should be made to preserve existing vegetation where applicable. BMPs should be installed and monitored per the MPDES CGP and SWPPP. Actions in the preferred alternative could have impacts to the area wetlands. The Town of Forsyth will provide the required background information to USACE Omaha District to support any required environmental consultation and to coordinate with the federal, state, and local agencies, along with other interested parties for modifications to the levee. This will include any wetlands that may be impacted. The preferred alternatives are not anticipated to impact the existing use of the levee or the soils.

No Action – No impacts to vegetation cover, quantity, and quality.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

Project location is identified as a priority area for terrestrial conservation efforts within the Montana State Wildlife Action Plan (SWAP; Yellowstone River Terrestrial Focal Area; Montana Fish, Wildlife, and Parks web map GIS data), and directly adjacent to a second priority area (Ingomar Terrestrial Focal Area; see attached map). The project area is also within an area identified as priority for aquatic conservation efforts. The Milk River is considered Tier 1 Priority with the SWAP for watershed aquatic focal areas (Yellowstone River Focal Area). A portion of the project exists directly adjacent to Montana Sage Grouse habitat (EO Habitat Class: EO-General Habitat). This portion extends along the northern boundary of the project but is listed as within the exempted community boundaries (see attached map). According to the FWS, no critical habitat exists within

the project.

Records from the Montana Natural Heritage Program (MNHP) for species occurrences indicate there are species of concern in and around the project region including: Blue Sucker (*Cycleptus elongatus*), Paddlefish *(Polyodon spathula*), Sauger (*Sander canadensis*), Sturgeon Chub (*Macrhybopsis* gelida), Great Blue Heron (*Ardea herodias*), Bald Eagle (*Haliaeetus leucocephalus*), Snapping Turtle (*Chelydra serpentina*), Plains Hog-nosed Snake (*Heterodon nasicus*), Greater Short-Horned lizard (*Phrynosoma hernandesi*), Spiny Softshell (*Apalone spinifera*), Bobolink (*Dolichonyx oryzivoros*), Loggerhead Shrike (*Lanius ludovicianus*), Greater Sage-Grouse (*Centrocercus urophasianus*), and Monarch (*Danaus plexippus*). MNHP records indicate the only plant species of concern is Mat Buckwheat (*Eriogonum caespitosum*). Important animal habitat includes non-cave bat roosts. MNHP records indicate 16 other observed and 98 potential animal and plant species of concern and potential species may exist in the area.

An active osprey nest is located within 0.5 miles of the site. The levee is located within the exempt community boundaries of the Montana Sage Grouse habitat, as mapped by the Montana Sage Grouse Habitat Conservation Program.

Given the level of noise and disturbance experienced every day with proximity to the railroad, FWP does not recommend minimizing nearby activities during the Osprey breeding season (May 15-August 15) and recommends avoiding any tree removal during the breeding season. The preferred alternative includes some vegetation removal in the levee prism and within 15 feet of the levee toe. All required permits will be secured prior to work.

Proposed Alternatives – Potentially indirect, adverse, minor to moderate, short-term, local impacts to terrestrial, avian and aquatic life and habitats. FWP comments should be adhered to as directed. Vegetative removal should not occur during the breeding season.

No Action – Potentially direct and indirect, adverse, moderate to major, long-term, regional impacts to terrestrial, avian, and aquatic life and habitats. If the levee continues to degrade and flooding breaches the levee, potentially hazardous chemicals and waste may be mobilized by floodwaters into the river and may cause extensive damage to wildlife.

---

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.

Endangered Species, as listed by Fish & Wildlife Service, in the area include Black-footed Ferrets (*Mustela nigripes*), Northern long-eared bat (*Myotis septentrionalis*), Pallid sturgeon (*Scaphirhynchus albus*), and monarch butterfly. USFWS listed seven migratory bird species as being in or potentially occurring in the project area: Bald Eagle, Bobolink, Interior Least Tern (*Sterna antillarum athalassos*), Pinyon Jay (*Gymnorhinus cyanocephalus*), Lark Bunting (*Calamospiza melanocorys*), Prairie Falcon (*Falco mexicanus*), and Red-headed Woodpecker (Melanerpes *erythrocephalus*).

An active Bald Eagle nest is located within 0.5 miles of the site. For any work planned within 0.5 miles of the eagle nest, FWP staff will be consulted to determine if the eagle nest is active. FWP recommends avoiding disturbance during the breeding season (February 1 – August 15) if the eagle

nest is active and recommends avoiding any tree removal during the breeding season. The preferred alternative includes some vegetation removal in the levee prism and within 15 feet of the levee toe. All required permits will be secured prior to work.

The National Wetlands Inventory (NWI) website was used to determine whether any wetlands were present within the lands adjacent to the project location (map included at the end of this EA). This search indicated that freshwater emergent wetlands are present within and adjacent to the project area. The Freshwater Emergent wetlands are seasonally flooded, contain vegetation for most of the year, and contain hydrophytic plants. Riverine wetlands exist near the project, but not within the proposed construction limits of the project. These mapped Freshwater Emergent Wetlands are located within a mile of the Town of Forsyth, along the Yellowstone River, including one in the West Rosebud State Park. Actions in the proposed alternative could have impacts to the area wetlands. The Town will provide the required background information to USACE Omaha District to support any required environmental consultation and to coordinate with the federal, state, and local agencies, along with other interested parties for modifications to the levee. This will include any wetlands that may be impacted.

Proposed Alternatives – Potentially direct, adverse, minor, short-term, local impacts to unique, endangered, fragile or limited environmental resources exist for the project. FWP comments should be adhered to as directed. Vegetative removal should not occur during the breeding season. If the eagle nest is active, FWP should be consulted prior to beginning construction near the nest. Efforts should be made to preserve existing vegetation where applicable, and disturbance of wetland habitat should be avoided. BMPs should be installed and monitored per the MPDES CGP and SWPPP.

No Action – Potentially direct and indirect, adverse, moderate to major, long-term, regional impacts to unique, endangered, fragile or limited environmental resources. If the levee continues to degrade and flooding breaches the levee, potentially hazardous chemicals and waste may be mobilized by floodwaters into the river and may cause extensive damage to wildlife.

---

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

The project is in a previously developed area. No cultural or historical sites are expected to be within the construction extent for the project. The project proponent has not implemented a cultural survey; however, they did reach out to the Montana State Historic Preservation Office (SHPO). SHPO indicated there are National Register Historic Properties and Districts within 1/2-mile of the project.

Proposed Alternatives and No Action - No cultural or historical resource impacts are anticipated. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.

The project location is within an area of currently existing infrastructure and development. The levee is located within the Town of Forsyth and near an active railroad line and Interstate 94. The project will be visible from portions of the Town, but its general design will not change from the current levee. There will be temporary impacts to noise from construction equipment. In some cases, visual quality and aesthetics may be improved from planned activities for the project.

Proposed Alternatives – Potentially indirect, negligible to minor, short-term, local impacts to aesthetics; direct impacts may be beneficial. Indirect, adverse nuisance impacts from heavy construction equipment will be temporary during the project and may include noise and exhaust fumes. Repairs of degrading portions of the existing levee may pose beneficial cumulative impacts to aesthetics. Removal of encroachments, including utility installations, may offer some enhancements to the visual quality and aesthetics of the area.

No Action – Potentially direct, adverse, negligible, long-term, local impacts to aesthetics. Continued degradation of the levee may pose minor visual cumulative effects to aesthetics.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.

No additional resources are expected to be used.

Proposed Alternatives and No Action – No impacts to demands on environmental resources of land, water, air, or energy. The project is not anticipated to have impacts on energy consumption or conservations, and/or solid waste in the community.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

The consultant has provided a completed DNRC Environmental Checklist and indicated they possess several Agency Comment letters. They also provided additional reports and figures listed below:

- Great West Engineering. 2022. Critical Facilities – Town of Forsyth, Rosebud County, Montana.
- KLJ. 2019. System Wide Improvement Framework.
- Thatcher, T. and Boyd, K. 2008. Yellowstone River Historic Events Timeline, Flooding, Ice Jams, Bridges, and Irrigation Infrastructure. November 17, 2008.

Action to address deficiencies preventing the levee from full participation in the P.L 84-99 program will have positive benefits to the Town's capacity to implement planning tools, such as the capital improvement plan.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

The project borders large portions of residential and commercial properties and utilities are in close proximity to the project. There are no known regulated underground storage tanks or other hazardous materials/sources within the project area. No abandoned mine lands exist within the extent of the project. Should the levee fail and floodwater inundate the Town, sedimentation and contaminants from the local industry and the Town's wastewater lagoons may enter the Yellowstone River potentially harming the watershed downstream of the Town.

The 2021 USACE Inspection Report for the Forsyth-Yellowstone River RB Levee System documented Minimally Acceptable and Unacceptable deficiencies and does not meet USACE O&M standards.

The levee currently protects the town from potential flooding from the Yellowstone River. The levee also plays a critical role in protecting tap water in the Town because it protects the Town's water treatment plant from flooding. If floodwater were to breach the levee, the treatment plant could be badly damaged or destroyed, and the Town would be without treated drinking water until repairs were completed.

In 2008, the Yellowstone River Conservation District commissioned a study to document historical flood events on the Yellowstone River. From June 2018 to June 1997, the Yellowstone River Historic Events Timeline documents fourteen flood events on the Yellowstone between Billings and Miles Town. Flooding also occurred in 2011 and 2020. In June 1918, floodwaters reached a depth of three feet on Main Street in Forsyth. Based on the inundation map floodwaters during a 100-year event would reach depths ranging from 10 to 15 feet in Forsyth without the levee. Such an event would cause catastrophic damage and threaten lives. Repairing the levee into compliance with USACE O&M requirements is crucial to protecting the residents of Forsyth, private and public property, and the environment.

Proposed Alternatives – Potentially direct and indirect, adverse, minor, short-term, local impacts to human health and safety. Heavy equipment would be used during construction of the proposed repairs and modifications to the system. Operation of heavy equipment poses a potential threat to public safety. There should be no impact during construction, but the typical risk to the public's safety may be increased during construction. BMPs should be installed to protect the public from the working construction extents. Repair and modification of the deficiencies of the levee system will provide direct and indirect, beneficial impacts to protect the town from flooding. This project

does not involve activities related to lead-based paint and/or asbestos.

No Action – Potentially direct, adverse, moderate to major, short- to long-term, local, recurring impacts may occur to human health and safety. Continued degradation of the levee may lead to critical failure in the event of flooding.

---

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

There are no agricultural lands, or commercial or industrial facilities within the project area, but these lands and facilities do exist nearby to the project area. The levee is protective of industrial, and commercial activities and production from floodwaters, and near the edges of the levee there are some agricultural areas which may be protected.

Existing conditions of the levee, constructed between 1947 & 1948. The USDA NRCS Web Soil Survey shows that some of the soils in the area of the levee are classified as soils of Statewide Importance and Prime Soils if Irrigated.

The proponent indicated that the levee was constructed between 1947 & 1948 and has not been used for agricultural operations since its construction. The preferred alternatives are not anticipated to impact the existing use of the levee or the soils. (Source: USDA NRCS Web Soil Survey)

Action to address deficiencies preventing the levee from full participation in the P.L 84-99 program will have positive benefits to the critical commercial and industrial facilities, including the railroad and highway system, by ensuring USACE has the authority to provide for emergency activities in support of State and Local governments prior to, during, and after a flood event. (Source; Engineer's opinion)

Proposed Alternatives – Direct, beneficial impacts to industrial, commercial, and agricultural activities and production. Repairs and modifications to the system will be protective of these properties and infrastructure.

No Action – Potentially direct and indirect, adverse, moderate to major, short- to long-term, local impacts may occur to industrial, commercial, and agricultural activities and production. Continued degradation of the levee may lead to critical failure in the event of flooding. Floodwater could damage these properties and infrastructure.

---

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.

The project area is adjacent to the Town of Forsyth, Montana. As of the 2020 Census, the Town had 1,647 residents. Mean income in the past 12 months (in 2021 inflation-adjusted dollars) is $23,282 for the total population, and $51,558 for all households with earnings. 67.1% of the household's income was partially or entirely based on earnings, 53.5% with social security income, and 20.9% with cash public assistance income or Food Stamps/SNAP.

Businesses in Forsyth depend on the levee for protection from the potential flooding of the

Yellowstone River. The levee currently protects the businesses of Forsyth from potential flooding of the Yellowstone River.

Proposed Alternatives – Potentially direct and indirect, beneficial impacts to quantity or distribution of employment. The construction of the project may bring local job opportunities that were not previously present. Continued O&M of the levee may provide jobs which were not previously present. The levee is protective of the Town and its businesses, and a failure of the levee may adversely affect employment.

No Action – Potentially direct and indirect, adverse, minor to major, short- to long-term, local impacts to quantity or distribution of employment. If the levee were to fail during a flood of the Yellowstone River, businesses could be damaged or destroyed, leaving residents without employment.

---

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

The existing levee surrounds and protects the Town from potential flooding of the Yellowstone River. Continued degradation of the levee may lower property values for homes and businesses, decreasing tax revenue.

Action to address deficiencies preventing the levee from full participation in the P.L 84-99 program will have positive benefits to the values of homes and businesses, by ensuring USACE has the authority to provide for emergency activities in support of State and Local governments prior to, during, and after a flood event. (Source; Engineer's opinion)

Proposed Alternatives – Potentially direct, beneficial impacts to local and state tax base and revenues. Property values are likely to increase, instead of decrease, due to reduced threat from flooding. Additional revenue may be available in the event of flooding, if the deficiencies of the levee are addressed.

No Action – Potentially direct and indirect, adverse, moderate to major, short- to long-term, local impacts to local and state tax base and revenues. Continued degradation of the levee may lead to critical failure in the event of flooding. Property values may diminish and/or properties may be damaged or destroyed.

---

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services

The 2022 SWIF Report notes that the Forsyth-Yellowstone RB Levee System protects government-owned facilities including the Fire Department, Rosebud County Library, Rosebud County Sheriff's Office, Forsyth Town Hall, Rosebud County Courthouse, and three schools, and the railroad, Town street network, and U.S Highway 94 are located within close proximity to the levee.

The project will involve an analysis of the feasibility of relocating the west end levee tie-in to the east near Highway 12. If relocation is a viable alternative, more data analysis, and a Section 408

Alteration will be required. It is anticipated that the closure structure relocation would require extensive coordination with the BNSF Railroad and the Montana Department of Transportation which may result in short-term disruptions.

Proposed Alternatives – Potentially direct, beneficial impacts to demand for government services. Action to address deficiencies preventing the levee from full participation in the P.L 84-99 program will have positive benefits to government-owned facilities and transportation network by ensuring USACE has the authority to provide for emergency activities in support of State and Local governments prior to, during, and after a flood event. Should relocation be necessary, direct, adverse potential impacts may occur to the nearby transportation network.

No Action – Potentially direct, adverse, moderate to major, long-term, local, recurring impacts to demand for government services. Continued degradation of the levee may lead to critical failure in the event of flooding and damage to government services.

---

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, Town, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

The levee currently protects the Town's critical infrastructure that supports the community's residential, commercial and industrial facilities, and built environment. Current encroachments on the levee include those by private property owners and utility owners.

Proposed Alternatives – Potentially direct, beneficial impacts to locally adopted environmental plans and goals. Action to address deficiencies preventing the levee from full participation in the P.L 84-99 program will have positive benefits to the Town's ability to grow and develop as opportunities present, allow the Town to implement planning tools, such as the capital improvement plan, and will include coordination with homeowners and utility companies to resolve encroachment issues. The preferred alternatives will help protect the FEMA certification as an accredited levee, which lowers flood insurance costs and provides properties the ability to receive emergency assistance prior to, during, and after a flood event.

No Action – Potentially direct and indirect, adverse, minor to major, long-term, local, recurring impacts to locally adopted environmental plans and goals. Continued degradation of the levee may lead to critical failure in the event of flooding may require full-scale changes to emergency plans with associated costs.

---

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.

The Yellowstone River provides diverse recreational opportunities for the public. The project area is located adjacent to the main recreational corridor of the Yellowstone River, primarily on private land. There are multiple public fishing access sites upstream and downstream of the project area. The project is not located in or on a designated Wild & Scenic River, Wilderness, or recreational area.

Proposed Alternatives and No Action – No direct impacts to access to and quality of recreational and wilderness activities. The preferred alternatives will not impact access to public lands, waterways, or public open spaces.

---

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify direct, indirect, and cumulative effects to population and housing.

The levee is situated adjacent to the Town of Forsyth, in Rosebud County, Montana. Homes in Forsyth depend on the levee for protection from the potential flooding of the Yellowstone River.

Proposed Alternatives – Potentially direct and indirect, beneficial impacts to density and distribution of population and housing. The preferred alternatives will address the identified deficiencies that are preventing unconditional participation in the P.L. 84-99 program. The preferred alternatives will have positive impacts on the 2,154 residents who reside in the Town of Forsyth, and who benefit from the flood protection offered by the levee. None of the project elements are expected to directly result in a change in demographic characteristics. Property values may increase.

No Action – Potentially direct and indirect, adverse, minor to major, short- to long-term, local, recurring impacts to density and distribution of population and housing. Continued degradation of the levee may lead to critical failure in the event of flooding. Without the preferred alternatives, the Town's residents will not have access to government assistance through funding and other sources. Property values may diminish, forcing residents to move and affecting density and distribution of population and housing. Properties may be damaged or destroyed. Some properties may no longer be suitable for development.

---

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Social conduct, structures, and behaviors follow conventions that are typical of the Town.

Proposed Alternatives – Potentially direct, beneficial impacts to social structures and mores. The preferred alternative is not expected to impact social conduct, structures, or behaviors typical of that of the Town.

No Action – Potentially direct and indirect, adverse, minor to moderate, short- to long-term, recurring local impacts to social structures and mores. Continued degradation of the levee may result in flooding which could potentially impact social structures and mores, including human health and safety.

---

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

There are no unique facilities of unique culture or diversity in the project area. The proposed project was provided to the Montana State Historic Preservation Office (SHPO) for review and comments. A Cultural Resource Information Report was also generated for the project. No comments were received from SHPO and the Resource Report indicates the existence of privately-

owned NR Listed resources within the Township, Range, and Section of the project area. The proposed project was sent to Tribal contacts for review and comment.

Proposed Alternatives and No Action – No impacts to cultural uniqueness and diversity. No comments from SHPO or Tribal contacts were received regarding the project. Impacts on historic properties and cultural and archaeological resources are not anticipated as a result of the actions in the preferred alternative.

---

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.

The median household income in the past 12 months (in 2021 inflation-adjusted dollars) was $51,324. Most individuals earn between $10,215 and $25,153.

Proposed Alternatives – Potentially direct and indirect, temporary beneficial impacts to appropriate social and economic circumstances. Construction activity will provide an influx of revenue to the Town during the project. Further O&M for the levee may provide additional long-term revenue and employment. Action to address deficiencies preventing the levee from full participation in the P.L 84-99 program will have positive benefits to local employment by ensuring USACE has the authority to provide for emergency activities in support of State and Local governments prior to, during, and after a flood event.

No Action –Potentially indirect and direct, adverse, minor to moderate, short-term, local impacts may include a loss of potential revenue for residents and businesses during the construction of the project. However, this would not change from existing conditions.

---

25. DRINKING WATER AND/OR CLEAN WATER

Identify potential impacts to water and/or sewer infrastructure (e.g., community water supply, stormwater, sewage system, solid waste management) and identify direct, indirect, and cumulative effects likely to occur as a result of the proposed action.

The levee currently protects the Town's critical infrastructure that supports the Town, including the sewage, municipal water, and stormwater systems. The proposed project would also help project approximately 100 miles of the Yellowstone River from the Cartersville Diversion Dam at Forsyth to the Powder River that is on DEQ's 303(d) list. According to DEQ, this section of the Yellowstone River is impaired by copper, lead, nitrate/nitrite, pH, sediment, total dissolved solids, and zinc. The project would protect this impaired portion of the Yellowstone River from further environmental degradation that would occur if flood water swept Forsyth's railyard and inundated the Town's wastewater treatment facility.

Proposed Alternatives – Potentially direct and indirect, beneficial impacts to drinking water and/or clean water. Continued degradation of the levee may result in damage to the Town's sewage, municipal water, and storm water systems in the event the levee is breached during a flood. Repair and modification of the levee will be protective of these systems.

No Action – Potentially direct and indirect, adverse, moderate to major, short- to long-term, local and regional, recurring impacts to drinking water and/or clean water. Continued degradation of the

levee may result in damage to the Town's sewage, municipal water, and stormwater systems in the event the levee is breached during a flood. Waste and other harmful pollutants may be mobilized into the river and carried downstream.

26. ENVIRONMENTAL JUSTICE

Will the proposed project result in disproportionately high or adverse human health or environmental effects on minority or low-income populations per the Environmental Justice Executive Order 12898? Identify potential impacts to and identify direct, indirect, and cumulative effects likely to occur as a result of the proposed action.

The current levee is protective of the Town but has identified deficiencies which are unacceptable. 7.3% of families live in the Town live below the poverty level.

Proposed Alternatives and No Action – Potentially no impacts to environmental justice as the proposed project will not result in disproportionately high or adverse human health of environmental effects on minority or low-income populations. The economic impact will ultimately affect all users of the system proportionately. No disproportionate effects among any portion of the community are expected.

EA Prepared By:	**Name:** Samantha Treu	**Date:** 04/13/23
	Title: MEPA Coordinator	**Email:** samantha.treu@mt.gov

V. FINDING

27. ALTERNATIVE SELECTED:

The proposed Alternative 1 for levee repairs and modifications is selected, which includes system-wide improvements to the encroachments, closure structures, erosion/bank caving, culvert/discharge pipes, and sluice/slide gates associated with the system. Repair and modification of the system will be the most protective alternative for public health and safety and minimize potentially adverse effects on the environment.

With Alternative 1, these improvements generally include: Relocation of various items outside of the levee right-of-way; improved protection to the railroad lines and interstate crossing; rebuilding levee embankments; repair and stabilization of sections of the levee where erosion and bank caving have occurred; inspecting and evaluating culverts and discharge pipes; removal, repair, and replacement of culverts and discharge pipes; and designing and constructing a replacement to slide gates.

28. SIGNIFICANCE OF POTENTIAL IMPACTS:

Water Quality, Quantity, and Distribution

During construction, the contractor will be required to obtain any applicable permits required for

construction, generally including the following: 310 Permit, SPA 124 Permit, Sections 401 and 404 Permit and NEPA process, MPDES General Permit and Rosebud County Floodplain Development Permit. An individual 404 permit from the USACE and a 124 permit from FWP will be required to complete the bank stabilization project. Any alterations to the levee will require a Section 408 submittal to USACE.

Air Quality

Temporary, potentially direct, adverse impacts to air quality are likely to be minimal as there may be some dust introduced to the environment during construction. The contractor will be required to provide dust control throughout construction to mitigate any generated dust.

Vegetation Cover, Quantity, and Quality

Potentially direct, adverse, minor to moderate, short-term, local impacts to vegetation cover exist during construction. Efforts should be made to preserve existing vegetation where applicable. BMPs should be installed and monitored per the MPDES CGP and SWPPP.

Actions in the preferred alternative could have impacts to the area wetlands. The Town will provide the required background information to USACE Omaha District to support any required environmental consultation and to coordinate with the federal, state, and local agencies, along with other interested parties for modifications to the levee. This will include any mitigation for wetlands that may be impacted.

Terrestrial, Avian, and Aquatic Life and Habitats

Potentially indirect, adverse, minor to moderate, short-term, local impacts to terrestrial, avian and aquatic life and habitats. An active osprey nest is located within 0.5 miles of the site. FWP comments regarding the nest should be adhered to as directed. Vegetative removal should not occur during the osprey breeding season.

Given the level of noise and disturbance experienced every day with proximity to the railroad, FWP does not recommend minimizing nearby activities, other than tree removal, during the Osprey breeding season (May 15-August 15) . If vegetative removal is to occur in the levee prism or within the levee toe, it should be performed outside of the breeding season. All required permits will be secured prior to work.

Unique, Endangered, Fragile, or Limited Environmental Resources

Potentially direct, adverse, minor, short-term, local impacts to unique, endangered, fragile or limited environmental resources exist for the project. Endangered Species, as listed by Fish & Wildlife Service, in the area include Black-footed Ferrets, Interior Least Tern, and Pallid Sturgeon. An active Bald Eagle nest is located within 0.5 miles of the site. Several mapped Freshwater Emergent Wetlands are located within a mile of the Town, along the Yellowstone River, including one in the West Rosebud State Park.

FWP comments should be adhered to as directed. For any work planned within 0.5 miles of the eagle nest, FWP staff will be consulted to determine if the eagle nest is active. If the eagle nest is active, FWP should be consulted prior to beginning construction near the nest. FWP recommends avoiding disturbance during the breeding season (February 1 – August 15) if the eagle nest is active

and recommends avoiding any tree removal during the breeding season.

Efforts should be made to preserve existing vegetation where applicable, and disturbance of wetland habitat should be avoided, if possible. BMPs should be installed and monitored per the MPDES CGP and SWPPP. All required permits will be secured prior to work.

Actions in the preferred alternative could have impacts to area wetlands. The Town will provide required background information to USACE Omaha District to support any required environmental consultation and to coordinate with federal, state, and local agencies, along with other interested parties for modifications to the levee, including wetlands that may be impacted.

Aesthetics/Noise

Potentially adverse impacts exist during construction. Overall, the proposed construction during this project is not anticipated to affect the visual quality because the site will be restored by the end of the project, and possibly improve visual aesthetics. The noise above the Town's typical level will most likely be produced during construction. To minimize the impact of this disturbance, the contractor will only work within the hours of 7 AM to 7 PM. The increased noise will only be temporary and a minor disturbance. Exhaust fumes may be an adverse condition due to the operation of heavy construction equipment. Operation and idling of heavy construction equipment should be limited around schools or other locations with sensitive residents.

Stormwater

There is expected to be little to no impact on stormwater runoff. During construction, the contractor will be required to prepare and submit a SWPPP and acquire the required permits for construction. BMPs should be installed and maintained according to the SWPPP.

Private Property Impacts

Direct, adverse impacts to private property exist during construction and beyond. The proposed alternative requires some adjustments to encroachments along the right-of-way. The Town has put the necessary measures in place to manage the impacts to private property and utility companies.

Human Health and Safety

Potentially direct and indirect, adverse, minor, short-term, local impacts to human health and safety exist during construction. However, continued degradation of the levee may result in flooding which may potentially impact social structures and mores, including human health and safety. Heavy equipment would be used during construction of the proposed repairs and modifications to the system. Operation of heavy equipment poses a potential threat to public safety. There should be no impact during construction, but the typical risk to the public's safety may be increased during construction. BMPs should be installed to protect the public from the working construction extents.

---

29. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

No impacts appear to require a mitigated EA or EIS.

This is the final decision notice.

☐	EIS	
☐	More Detailed EA	
X	No Further Analysis	

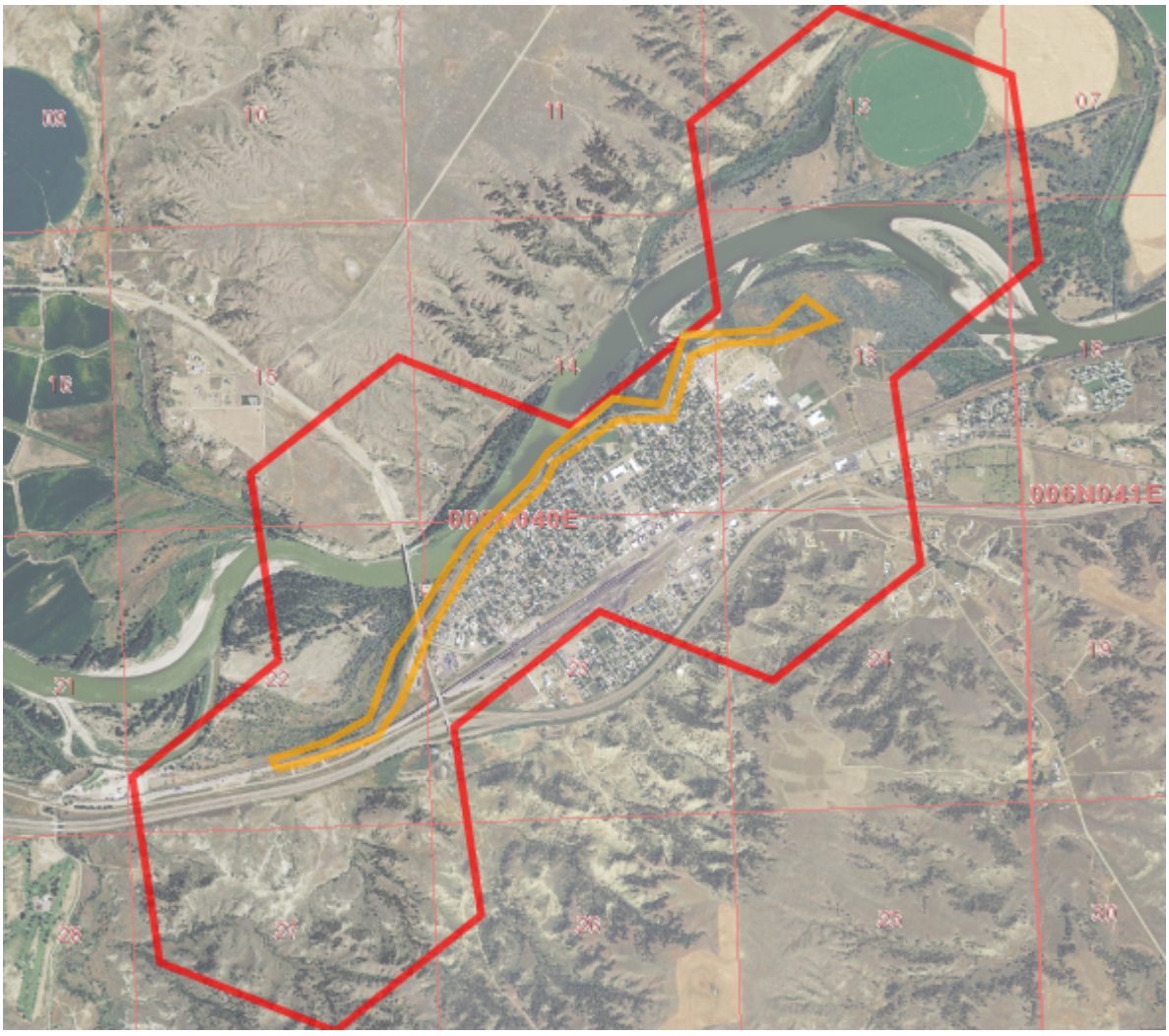
EA Approved By:	**Name:** Mark W Bostrom **Title:** Division Administrator	
Signature: DocuSigned by: Mark W Bostrom BF7A1C50B2AF4DE...	**Date**: 5/22/2023 | 8:16:03 AM MDT	

Environmental Summary

MONTANA
Natural Heritage Program
1515 East 6th Avenue
Helena, MT 59620
(406) 444-5363
mtnhp.org

Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Summarized by:
Forsyth
(Custom Area of Interest)



Suggested Citation
Montana Natural Heritage Program. Environmental Summary Report.
for Latitude 46.24290 to 46.29043 and Longitude -106.65119 to -106.71628. Retrieved on 4/13/2023.

The Montana Natural Heritage Program is part of the Montana State Library's Natural Resource Information System. Since 1985, it has served as a neutral and non-regulatory provider of easily accessible information on Montana's species and biological communities to inform all stakeholders in environmental review, permitting, and planning processes. The program is part of NatureServe, a network of over 80 similar programs in states, provinces, and nations throughout the Western Hemisphere, working to provide current and comprehensive distribution and status information on species and biological communities.

Montana Natural Heritage Program | Montana State Library | NatureServe

Table of Contents

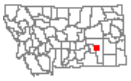
Introduction to Environmental Summary Report

Environmental Summary Reports from the Montana Natural Heritage Program (MTNHP) provide information on species and biological communities to inform all stakeholders in environmental review, permitting, and planning processes. For information on environmental permits in Montana, please see permitting overviews by the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, the Index of Environmental Permits for Montana and our Suggested Contacts for Natural Resource Management Agencies. The report for your area of interest consists of introductory and related materials in this PDF and an Excel workbook with worksheets summarizing information managed in the MTNHP databases for: (1) species occurrences; (2) other observed species without species occurrences; (3) other species potentially present based on their range, presence of associated habitats, or predictive distribution model output if available; (4) structured surveys that follow a protocol capable of detecting one or more species; (5) land cover mapped as ecological systems; (6) wetland and riparian mapping; (7) land management categories; and (8) biological reports associated with plant and animal observations. If your area of interest corresponds to a statewide polygon layer (e.g., watersheds, counties, or public land survey sections) information summaries in your report will exactly match those boundaries. However, if your report is for a custom area, users should be aware that summaries do not correspond to the exact boundaries of the polygon they have specified, but instead are a summary across a layer of hexagons intersected by the polygon they specified as shown on the report cover. Summarizing by these hexagons which are one square mile in area and approximately one kilometer in length on each side allows for consistent and rapid delivery of summaries based on a uniform grid that has been used for planning efforts across the western United States (e.g., Western Association of Fish and Wildlife Agencies - Crucial Habitat Assessment Tool).

In presenting this information, MTNHP is working towards assisting the user with rapidly assessing the known or potential species and biological communities, land management categories, and biological reports associated with the report area. Users are reminded that this information is likely incomplete and may be inaccurate as surveys to document species are lacking in many areas of the state, species' range polygons often include regions of unsuitable habitat, methods of predicting the presence of species or communities are constantly improving, and information is constantly being added and updated in our databases. **Field verification by professional biologists of the absence or presence of species and biological communities in a report area will always be an important obligation of users of our data. Users are encouraged to only use this environmental summary report as a starting point for more in depth analyses and are encouraged to contact state, federal, and tribal resource management agencies for additional data or management guidelines relevant to your efforts. Please see the Appendix for introductory materials to each section of the report, additional information resources, and a list of relevant agency contacts.**

Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**

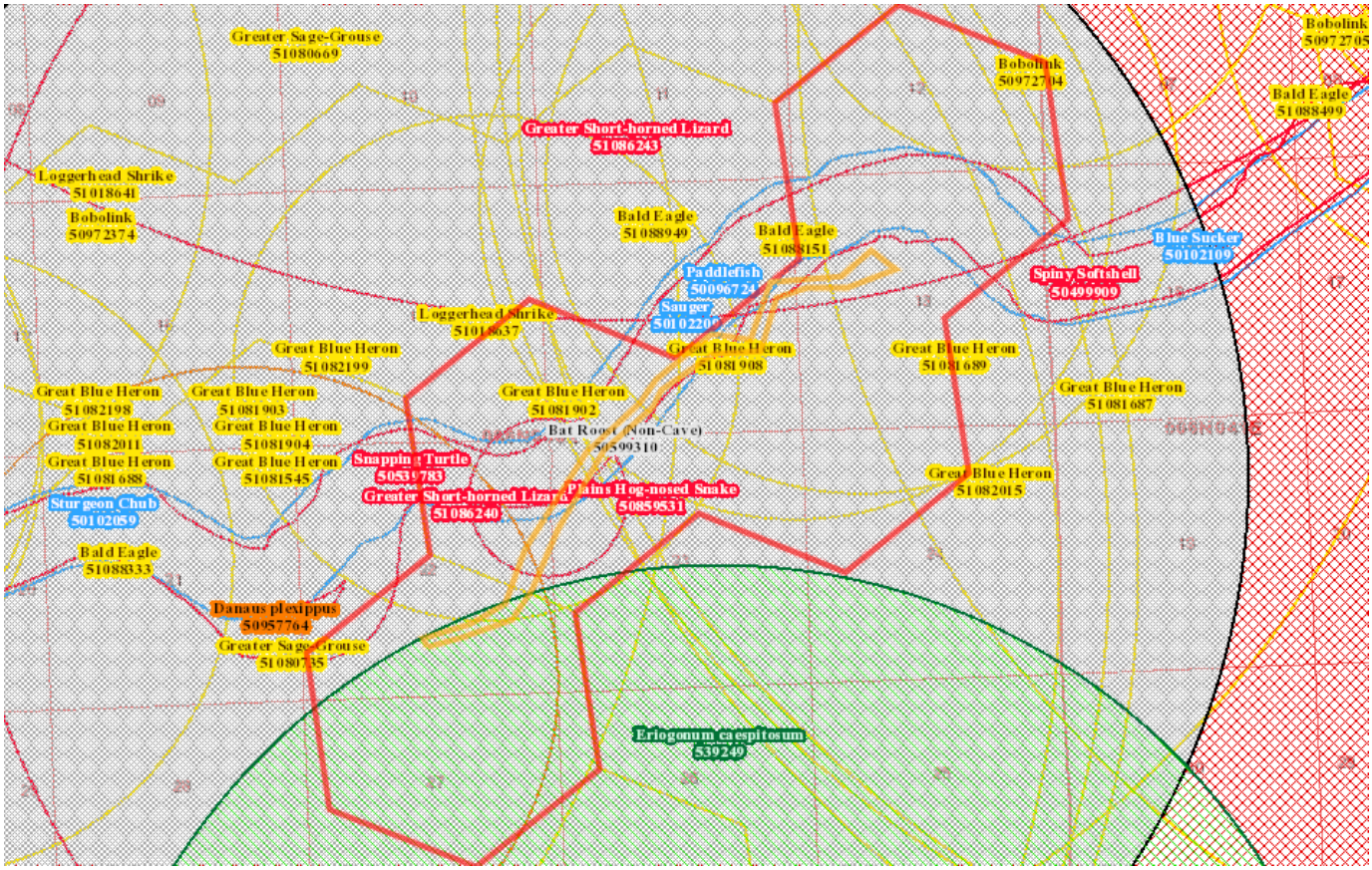
Model Icons	Habitat Icons	Range Icons	Num Obs
N Suitable (native range)	C Common	Y Native / Year-round	Count of obs with 'good precision' (<=1000m)
O Optimal Suitability	O Occasional	S Summer	+ indicates additional 'poor precision' obs (1001m-10,000m)
M Moderate Suitability		W Winter	
L Low Suitability		M Migratory	
I Suitable (introduced range)		N Non-native	
		H Historical	



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Native Species

Summarized by: **Forsyth** *(Custom Area of Interest)*
Filtered by:
Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC



Species Occurrences

	USFWS Sec7	# SO	# Obs	Predicted Model	Range
F - Blue Sucker *(Cycleptus elongatus)* SOC		1	+		Y

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G3G4** State: **S2S3** FWP SWAP: **SGCN2-3**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 18, 2022)

Predicted Models: N 75% Suitable (native range) (deductive)

F - Paddlefish *(Polyodon spathula)* SOC		1			Y

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN2**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 25, 2022)

Predicted Models: N 75% Suitable (native range) (deductive)

F - Sauger *(Sander canadensis)* SOC		1	2 +		Y

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN2**

Delineation Criteria Stream reaches and standing water bodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters, standing water bodies greater than 1 acre are buffered 50 meters, and standing water bodies less than 1 acre are buffered 30 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 18, 2022)

Predicted Models: N 75% Suitable (native range) (deductive)

F - Sturgeon Chub *(Macrhybopsis gelida)* SOC		1	+		Y	H

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G3** State: **S2S3** BLM: **SENSITIVE** FWP SWAP: **SGCN2-3**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 18, 2022)

Predicted Models: N 75% Suitable (native range) (deductive)

R - Snapping Turtle *(Chelydra serpentina)* SOC — 1 — Y

Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3, SGIN**

Delineation Criteria Stream reaches and standing water bodies within the species native range where their presence has been confirmed through direct capture or observation or where they are believed to be present based on the professional judgement of a biologist due to confirmed presence in adjacent areas. Occupied stream reaches are buffered up and downstream and into adjoining streams by 6,000 meters to encompass maximum reported annual travel distance. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches and standing water bodies are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Dec 22, 2022)

Predicted Models: O 50% Optimal (inductive), M 25% Moderate (inductive), L 25% Low (inductive)

R - Plains Hog-nosed Snake *(Heterodon nasicus)* SOC — 1 — 1 — Y

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN2, SGIN**

Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 500 meters in order to encompass the maximum summer home range size reported for the congeneric Eastern Hog-nosed Snake and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 30, 2022)

Predicted Models: O 25% Optimal (inductive), M 50% Moderate (inductive), L 25% Low (inductive)

B - Great Blue Heron *(Ardea herodias)* SOC — 12 — 12 — S — M

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S3** USFWS: **MBTA** FWP SWAP: **SGCN3**

Delineation Criteria Confirmed nesting area buffered by a minimum distance of 6,500 meters in order to be conservative about encompassing the areas commonly used for foraging near the breeding colony and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Mar 22, 2023)

Predicted Models: O 25% Optimal (inductive), M 50% Moderate (inductive), L 25% Low (inductive)

B - Bald Eagle *(Haliaeetus leucocephalus)* SSS — 2 — 20 — Y

View in Field Guide **View Predicted Models** **View Range Maps**

Special Status Species - Native Species Global: **G5** State: **S4** USFWS: **BGEPA; MBTA** USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)** BLM: **SENSITIVE** PIF: **2**

Delineation Criteria Confirmed nesting area buffered by a minimum distance of 2,000 meters in order to be conservative about encompassing the breeding territory and area commonly used for renesting. Only nesting observations with a locational uncertainty of 1,000 meters or less will be used to delineate a nesting area. (Last Updated: Mar 23, 2023)

Predicted Models: O 25% Optimal (inductive), M 25% Moderate (inductive), L 50% Low (inductive)

R - Spiny Softshell *(Apalone spinifera)* SOC — 1 — 3 — Y — H

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3**

Delineation Criteria Stream reaches and impounded streams within the species' native range where the species naturally occurs and their presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters and impounded streams 50 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Sep 22, 2022)

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

B - Loggerhead Shrike *(Lanius ludovicianus)* SOC — 1 — + — S — M

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 300 meters in order to encompass the maximum breeding territory size reported for the species in Alberta and Idaho and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jan 03, 2023)

Predicted Models: L 100% Low (inductive)

R - Greater Short-horned Lizard *(Phrynosoma hernandesi)* SOC — 2 — + — Y

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3, SGIN**

Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 300 meters in order to encompass habitats supporting other individuals and documented distances moved betweeen summer and winter habitats. Otherwise the point observation is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Mar 22, 2023)

Predicted Models: L 100% Low (inductive)

B - Bobolink *(Dolichonyx oryzivorus)* SOC — 1 — + — S — M

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** FWP SWAP: **SGCN3** PIF: **3**

Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 150 meters in order to conservatively encompass male territory size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Dec 28, 2022)

Predicted Models: L 75% Low (inductive)

B - Greater Sage-Grouse *(Centrocercus urophasianus)* SOC — 2 — + — Not Assessed — Y

View in Field Guide **View Range Maps**

USFS: **Sensitive - Known in Forests (BD)**

Species of Concern - Native Species Global: **G3G4** State: **S2** **Species of Conservation Concern in Forests (CG)** BLM: **SENSITIVE** FWP SWAP: **SGCN2** PIF: **1**

Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, juveniles, or adults on a lek. Point observations are mapped in the center of a one-square mile hexagon to protect the exact locations of leks. The outer edges of this hexagon are then buffered by a distance of 6,400 meters in order to encompass a body of research indicating that females typically nest within this distance of a lek and that lek numbers are negatively impacted by fossil fuel drilling activities within this distance of a lek. If the locational uncertainty associated with the observation is greater than this distance, it is buffered by the locational up to a maximum distance of 10,000 meters. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: Jan 25, 2023)

V - Eriogonum caespitosum *(Mat Buckwheat)* SOC — 1 — Not Assessed — Y

View in Field Guide **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S2S3** Plant Threat Score: **No Known Threats**

Delineation Criteria Individual occurrences are generally based upon a discretely mapped area provided by an observer and are not separated by any pre-defined distance. Individual clusters of plants mapped at fine spatial scales (separated by less than approximately 25-50 meters) may be grouped together into one occurrence if they are not separated by distinct areas of habitat or terrain features. Point observations are buffered to encompass any locational uncertainty associated with the observation. (Last Updated: Jan 20, 2023)

I - Danaus plexippus *(Monarch)* SOC — 1 — Not Assessed — S

View in Field Guide **View Range Maps**

Species of Concern - Native Species Global: **G4** State: **S2S3** USFWS: **C**

Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age/stage. Point observation location is buffered by a minimum distance of 2,000 meters in order to encompass documented travel distances of some butterfly species as well as adjacent habitat likely to support other individuals and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Dec 21, 2022)

O - Bat Roost (Non-Cave) *(Bat Roost (Non-Cave))* IAH		1		Not Assessed

Important Animal Habitat - Native Species Global: **GNR** State: **SNR**

Delineation Criteria Confirmed area of occupancy based on the documented presence of adults or juveniles of any bat species at non-cave natural roost sites (e.g. rock outcrops, trees), below ground human created roost sites (e.g. mines), and above ground human created roost sites (e.g., bridges, buildings). Point observation locations are buffered by a distance of 4,500 meters in order to encompass the 95% confidence interval for nightly foraging distance reported for Townsendâ€™s Big-eared Bat (a resident Montana bat Species of Concern) and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Oct 22, 2019)

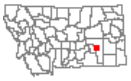
Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**

Model Icons
N Suitable (native range)
O Optimal Suitability
M Moderate Suitability
L Low Suitability
I Suitable (introduced range)

Habitat Icons
C Common
O Occasional

Range Icons
Y Native / Year-round
S Summer
W Winter
M Migratory
N Non-native
H Historical

Num Obs
Count of obs with 'good precision' (<=1000m)
+ indicates additional 'poor precision' obs (1001m-10,000m)



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Native Species

Summarized by: **Forsyth** *(Custom Area of Interest)*
Filtered by:
Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC

Other Observed Species

	USFWS Sec7	# Obs	Predicted Model	Range
F - Burbot *(Lota lota)* PSOC		1 +		Y
F - Plains Minnow *(Hybognathus placitus)* PSOC		+		Y
B - Eastern Screech-Owl *(Megascops asio)* PSOC		3		Y
B - Chimney Swift *(Chaetura pelagica)* PSOC		14		S M
B - Ovenbird *(Seiurus aurocapilla)* PSOC		3		S M
A - Northern Leopard Frog *(Lithobates pipiens)* SOC		+		Y
B - American White Pelican *(Pelecanus erythrorhynchos)* SOC		4		S M
B - Cassin's Kingbird *(Tyrannus vociferans)* PSOC		1		S M
B - Dickcissel *(Spiza americana)* PSOC		+		S M
B - Black-and-white Warbler *(Mniotilta varia)* PSOC		+		S M
B - Red-headed Woodpecker *(Melanerpes erythrocephalus)* SOC		1		S M
B - Golden Eagle *(Aquila chrysaetos)* SOC		2		Y
F - Brook Stickleback *(Culaea inconstans)* PSOC		1 +		N

F - Burbot *(Lota lota)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4**
Predicted Models: N 75% Suitable (native range) (deductive)

F - Plains Minnow *(Hybognathus placitus)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G4** State: **S4**
Predicted Models: N 75% Suitable (native range) (deductive)

B - Eastern Screech-Owl *(Megascops asio)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** USFWS: **MBTA** PIF: **3**
Predicted Models: O 75% Optimal (inductive), M 25% Moderate (inductive)

B - Chimney Swift *(Chaetura pelagica)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G4G5** State: **S3S4B** USFWS: **MBTA; BCC11** FWP SWAP: **SGIN** PIF: **3**
Predicted Models: O 50% Optimal (inductive), M 50% Moderate (inductive)

B - Ovenbird *(Seiurus aurocapilla)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA** PIF: **3**
Predicted Models: O 25% Optimal (inductive), M 50% Moderate (inductive), L 25% Low (inductive)

A - Northern Leopard Frog *(Lithobates pipiens)* SOC
View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S1,S4** USFS: **Sensitive - Known in Forests (KOOT)** **Sensitive - Suspected in Forests (BRT, LOLO)** BLM: **SENSITIVE** FWP SWAP: **SGCN1**
Predicted Models: M 100% Moderate (inductive)

B - American White Pelican *(Pelecanus erythrorhynchos)* SOC
View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA** FWP SWAP: **SGCN3** PIF: **3**
Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

B - Cassin's Kingbird *(Tyrannus vociferans)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: M 25% Moderate (inductive), L 75% Low (inductive)

B - Dickcissel *(Spiza americana)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: M 25% Moderate (inductive), L 75% Low (inductive)

B - Black-and-white Warbler *(Mniotilta varia)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: M 25% Moderate (inductive), L 75% Low (inductive)

B - Red-headed Woodpecker *(Melanerpes erythrocephalus)* SOC
View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**
Predicted Models: L 50% Low (inductive)

B - Golden Eagle *(Aquila chrysaetos)* SOC
View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3** USFWS: **BGEPA; MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3**
Predicted Models: L 25% Low (inductive)

F - Brook Stickleback *(Culaea inconstans)* PSOC
View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: **G5** State: **S4**
Predicted Models: I 75% Suitable (introduced range) (deductive)

B - Mountain Plover *(Charadrius montanus)* SOC — 1 — Not Assessed — S M

Species of Concern - Native Species Global: **G3** State: **S2B** USFWS: **MBTA; BCC10; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN2** PIF: **1**

I - Argia emma *(Emma's Dancer)* PSOC — 1 — Not Assessed — Y

View in Field Guide View Range Maps

Potential Species of Concern - Native Species Global: **G5** State: **S3S5**

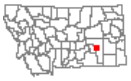
B - Tennessee Warbler *(Leiothlypis peregrina)* PSOC — 1 — Not Assessed — M

View in Field Guide View Range Maps

Potential Species of Concern - Native Species Global: **G5** State: **S3S4B** USFWS: **MBTA**

Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**

Model Icons	Habitat Icons	Range Icons	Num Obs
N Suitable (native range)	C Common	Y Native / Year-round	Count of obs with 'good precision' (<=1000m)
O Optimal Suitability	O Occasional	S Summer	+ indicates additional 'poor precision' obs (1001m-10,000m)
M Moderate Suitability		W Winter	
L Low Suitability		M Migratory	
I Suitable (introduced range)		N Non-native	
		H Historical	



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Native Species

Summarized by: **Forsyth** *(Custom Area of Interest)*
Filtered by:
Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC

Other Potential Species

	USFWS Sec7	Predicted Model	Range
F - Brassy Minnow *(Hybognathus hankinsoni)* PSOC			Y
F - Creek Chub *(Semotilus atromaculatus)* PSOC			Y
B - Yellow-billed Cuckoo *(Coccyzus americanus)* SOC			S M
V - Dalea enneandra *(Nine-anther prairie clover)* SOC			Y
B - Black-billed Cuckoo *(Coccyzus erythropthalmus)* SOC			S M
R - Western Milksnake *(Lampropeltis gentilis)* SOC			Y
M - North American Porcupine *(Erethizon dorsatum)* PSOC			Y
V - Psilocarphus brevissimus *(Dwarf woolly-heads)* SOC			Y
M - Hoary Bat *(Lasiurus cinereus)* SOC			S M
M - Dwarf Shrew *(Sorex nanus)* SOC			Y
B - Veery *(Catharus fuscescens)* SOC			S M
V - Cyperus schweinitzii *(Schweinitz's Flatsedge)* SOC			Y
M - Eastern Red Bat *(Lasiurus borealis)* SOC			S M

F - Brassy Minnow *(Hybognathus hankinsoni)* PSOC

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4**
Predicted Models: N 75% Suitable (native range) (deductive)

F - Creek Chub *(Semotilus atromaculatus)* PSOC

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: **G5** State: **S4**
Predicted Models: N 75% Suitable (native range) (deductive)

B - Yellow-billed Cuckoo *(Coccyzus americanus)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **PS: LT; MBTA** BLM: **THREATENED** FWP SWAP: **SGCN3, SGIN** PIF: **2**
Predicted Models: O 100% Optimal (inductive)

V - Dalea enneandra *(Nine-anther prairie clover)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2S3** Plant Threat Score: **No Known Threats**
Predicted Models: O 50% Optimal (inductive), M 50% Moderate (inductive)

B - Black-billed Cuckoo *(Coccyzus erythropthalmus)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3, SGIN** PIF: **2**
Predicted Models: O 50% Optimal (inductive), M 50% Moderate (inductive)

R - Western Milksnake *(Lampropeltis gentilis)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN2**
Predicted Models: O 25% Optimal (inductive), M 75% Moderate (inductive)

M - North American Porcupine *(Erethizon dorsatum)* PSOC

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** FWP SWAP: **SGIN**
Predicted Models: M 100% Moderate (inductive)

V - Psilocarphus brevissimus *(Dwarf woolly-heads)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2S3** USFS: **Sensitive - Known in Forests (KOOT)** Plant Threat Score: **No Known Threats**
Predicted Models: M 100% Moderate (inductive)

M - Hoary Bat *(Lasiurus cinereus)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G3G4** State: **S3B** BLM: **SENSITIVE** FWP SWAP: **SGCN3**
Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

M - Dwarf Shrew *(Sorex nanus)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2S3** FWP SWAP: **SGCN2-3**
Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

B - Veery *(Catharus fuscescens)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**
Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

V - Cyperus schweinitzii *(Schweinitz's Flatsedge)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2** Plant Threat Score: **Low**
Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

M - Eastern Red Bat *(Lasiurus borealis)* SOC

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G3G4** State: **S3B** BLM: **SENSITIVE**
Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

M - Little Brown Myotis *(Myotis lucifugus)* SOC

Species of Concern - Native Species Global: **G3G4** State: **S3** FWP SWAP: **SGCN3**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

M - Long-eared Myotis *(Myotis evotis)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G5** State: **S3**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

M - Merriam's Shrew *(Sorex merriami)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G4** State: **S3** FWP SWAP: **SGCN3**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

M - Pallid Bat *(Antrozous pallidus)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G4** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

B - Plumbeous Vireo *(Vireo plumbeus)* PSOC

View in Field Guide View Predicted Models View Range Maps

Potential Species of Concern - Native Species Global: **G5** State: **S3S4B** USFWS: **MBTA** PIF: **3**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

V - Ipomoea leptophylla *(Bush morning-glory)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G3G5** State: **S1S2** Plant Threat Score: **No Known Threats**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

V - Physaria brassicoides *(Double Bladderpod)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G5** State: **S3** Plant Threat Score: **No Known Threats**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

B - Least Tern *(Sternula antillarum)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G4** State: **S1B** USFWS: **DM; MBTA** BLM: **ENDANGERED** FWP SWAP: **SGCN1, SGIN** PIF: **1**

Predicted Models: M 50% Moderate (inductive), L 25% Low (inductive)

M - Spotted Bat *(Euderma maculatum)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G4** State: **S3** USFS: **Sensitive - Known in Forests (BD)** BLM: **SENSITIVE** FWP SWAP: **SGCN3, SGIN**

Predicted Models: M 25% Moderate (inductive), L 75% Low (inductive)

B - Eastern Bluebird *(Sialia sialis)* PSOC

View in Field Guide View Predicted Models View Range Maps

Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**

Predicted Models: M 25% Moderate (inductive), L 50% Low (inductive)

I - Bombus suckleyi *(Suckley Cuckoo Bumble Bee)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G2G3** State: **S1**

Predicted Models: M 25% Moderate (inductive), L 50% Low (inductive)

M - Townsend's Big-eared Bat *(Corynorhinus townsendii)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G4** State: **S3** USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)** BLM: **SENSITIVE** FWP SWAP: **SGCN3**

Predicted Models: M 25% Moderate (inductive), L 25% Low (inductive)

M - Hayden's Shrew *(Sorex haydeni)* PSOC

View in Field Guide View Predicted Models View Range Maps

Potential Species of Concern - Native Species Global: **G5** State: **S3S4**

Predicted Models: L 100% Low (inductive)

M - Silver-haired Bat *(Lasionycteris noctivagans)* PSOC

View in Field Guide View Predicted Models View Range Maps

Potential Species of Concern - Native Species Global: **G3G4** State: **S4**

Predicted Models: L 100% Low (inductive)

B - Common Poorwill *(Phalaenoptilus nuttallii)* PSOC

View in Field Guide View Predicted Models View Range Maps

Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA** FWP SWAP: **SGIN** PIF: **3**

Predicted Models: L 100% Low (inductive)

B - Sharp-tailed Grouse *(Tympanuchus phasianellus)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G5** State: **SX,S4** FWP SWAP: **SGCN1** PIF: **2**

Predicted Models: L 100% Low (inductive)

M - Long-legged Myotis *(Myotis volans)* SOC

View in Field Guide View Predicted Models View Range Maps

Species of Concern - Native Species Global: **G4G5** State: **S3**

Predicted Models: L 100% Low (inductive)

M - Black-tailed Prairie Dog *(Cynomys ludovicianus)* SOC

Species of Concern - Native Species Global: **G4** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3**
Predicted Models: L 100% Low (inductive)

B - Long-billed Curlew *(Numenius americanus)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC11** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**
Predicted Models: L 100% Low (inductive)

M - Meadow Jumping Mouse *(Zapus hudsonius)* PSOC

View in Field Guide **View Predicted Models** **View Range Maps**
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** FWP SWAP: **SGIN**
Predicted Models: L 75% Low (inductive)

A - Great Plains Toad *(Anaxyrus cognatus)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN2**
Predicted Models: L 75% Low (inductive)

M - Swift Fox *(Vulpes velox)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G3** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3**
Predicted Models: L 75% Low (inductive)

V - Chenopodium subglabrum *(Smooth Goosefoot)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G3G4** State: **S2** Plant Threat Score: **Unknown** CCVI: **Highly Vulnerable**
Predicted Models: L 75% Low (inductive)

V - Astragalus geyeri *(Geyer's Milkvetch)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S2** Plant Threat Score: **No Known Threats** CCVI: **Highly Vulnerable**
Predicted Models: L 75% Low (inductive)

M - Fringed Myotis *(Myotis thysanodes)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3**
Predicted Models: L 50% Low (inductive)

B - Black Tern *(Chlidonias niger)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**
Predicted Models: L 50% Low (inductive)

V - Elodea bifoliata *(Long-sheath Waterweed)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4G5** State: **S2?** Plant Threat Score: **No Known Threats**
Predicted Models: L 50% Low (inductive)

V - Carex crawei *(Crawe's Sedge)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S2S3** Plant Threat Score: **Low**
Predicted Models: L 50% Low (inductive)

V - Potentilla plattensis *(Platte Cinquefoil)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S3** Plant Threat Score: **No Known Threats** CCVI: **Highly Vulnerable**
Predicted Models: L 50% Low (inductive)

B - Green-tailed Towhee *(Pipilo chlorurus)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** FWP SWAP: **SGCN3** PIF: **3**
Predicted Models: L 25% Low (inductive)

B - Pinyon Jay *(Gymnorhinus cyanocephalus)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G3** State: **S3** USFWS: **MBTA; BCC10; BCC17** FWP SWAP: **SGCN3**
Predicted Models: L 25% Low (inductive)

B - American Bittern *(Botaurus lentiginosus)* SOC

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **3**
Predicted Models: L 25% Low (inductive)

V - Cypripedium parviflorum *(Small Yellow Lady's-slipper)* PSOC

View in Field Guide **View Predicted Models** **View Range Maps**
USFS: **Sensitive - Known in Forests (KOOT, LOLO)**
Sensitive - Suspected in Forests (BRT)
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** **Species of Conservation Concern in Forests (CG, HLC)**
Predicted Models: L 25% Low (inductive)

B - Short-eared Owl *(Asio flammeus)* PSOC

Not Assessed

View in Field Guide **View Range Maps**
Potential Species of Concern - Native Species Global: **G5** State: **S4** USFWS: **MBTA; BCC11; BCC17** PIF: **3**

M - Preble's Shrew *(Sorex preblei)* SOC — Not Assessed Y

Species of Concern - Native Species Global: **G4** State: **S3** FWP SWAP: **SGCN3**

V - Pediomelum hypogaeum var. hypogaeum *(Little Indian Breadroot)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5T4** State: **S3S4**

M - Black-footed Ferret *(Mustela nigripes)* SOC — Not Assessed H

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G1** State: **S1** USFWS: **LE; XN** BLM: **ENDANGERED** FWP SWAP: **SGCN1**

B - Ferruginous Hawk *(Buteo regalis)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

B - Burrowing Owl *(Athene cunicularia)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **1**

V - Senecio integerrimus var. scribneri *(Scribner's Ragwort)* SOC — Not Assessed Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5T2T3** State: **S2S3** Plant Threat Score: **No Known Threats** CCVI: **Less Vulnerable**

B - Franklin's Gull *(Leucophaeus pipixcan)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

B - Chestnut-collared Longspur *(Calcarius ornatus)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN2** PIF: **2**

B - Hooded Merganser *(Lophodytes cucullatus)* PSOC — Not Assessed M

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4** USFWS: **MBTA** FWP SWAP: **SGIN** PIF: **2**

I - Argia vivida *(Vivid Dancer)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S5**

I - Enallagma clausum *(Alkali Bluet)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S2S4**

I - Gomphurus externus *(Plains Clubtail)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S2S4**

I - Rhionaeschna californica *(California Darner)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S5**

V - Bacopa rotundifolia *(Roundleaf Water-hyssop)* SOC — Not Assessed Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3?** Plant Threat Score: **No Known Threats** CCVI: **Moderately Vulnerable**

B - Barrow's Goldeneye *(Bucephala islandica)* PSOC — Not Assessed M

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4** USFWS: **MBTA** FWP SWAP: **SGIN** PIF: **2**

B - Black-crowned Night-Heron *(Nycticorax nycticorax)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** FWP SWAP: **SGCN3** PIF: **3**

B - Common Tern *(Sterna hirundo)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

B - Piping Plover *(Charadrius melodus)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G3** State: **S2B** USFWS: **LT; CH; MBTA** BLM: **THREATENED** FWP SWAP: **SGCN2** PIF: **1**

B - White-faced Ibis *(Plegadis chihi)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

B - Baird's Sparrow *(Centronyx bairdii)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **1**

B - Thick-billed Longspur *(Rhynchophanes mccownii)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

B - Sprague's Pipit *(Anthus spragueii)* SOC — 7 Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G3G4** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **1**

V - Amorpha canescens *(Lead Plant)* SOC — Not Assessed Y

Species of Concern - Native Species Global: **G5** State: **S3** Plant Threat Score: **No Known Threats** CCVI: **Moderately Vulnerable**

V - Phlox andicola *(Plains Phlox)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G4** State: **S3S4**

M - Grizzly Bear *(Ursus arctos)* SOC — Not Assessed H

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2S3** USFWS: **LT** BLM: **THREATENED** FWP SWAP: **SGCN2-3**

B - Lewis's Woodpecker *(Melanerpes lewis)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2B** USFWS: **MBTA; BCC10; BCC17** USFS: **Species of Conservation Concern in Forests (HLC)**
BLM: **SENSITIVE** FWP SWAP: **SGCN2** PIF: **2**

I - Polygonia progne *(Gray Comma)* SOC — Not Assessed Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2**

B - Northern Goshawk *(Accipiter gentilis)* SOC — Not Assessed W M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3** USFWS: **MBTA** FWP SWAP: **SGCN3** PIF: **2**

V - Rorippa calycina *(Persistent-sepal Yellow-cress)* SOC — Not Assessed H

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G3** State: **SH** Plant Threat Score: **No Known Threats** CCVI: **Highly Vulnerable**

B - Alder Flycatcher *(Empidonax alnorum)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** FWP SWAP: **SGCN3**

M - Bison *(Bos bison)* SOC — Not Assessed H

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2** FWP SWAP: **SGCN2**

B - Brewer's Sparrow *(Spizella breweri)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

B - Sage Thrasher *(Oreoscoptes montanus)* SOC — Not Assessed S M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **3**

I - Enallagma civile *(Familiar Bluet)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S2S4**

I - Rhionaeschna multicolor *(Blue-eyed Darner)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S2S4**

B - Caspian Tern *(Hydroprogne caspia)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN2** PIF: **2**

B - Forster's Tern *(Sterna forsteri)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

I - Coenagrion angulatum *(Prairie Bluet)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S1S3**

B - Black-necked Stilt *(Himantopus mexicanus)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** FWP SWAP: **SGCN3** PIF: **3**

B - Horned Grebe *(Podiceps auritus)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

I - Aeshna constricta *(Lance-tipped Darner)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S1S3**

I - Enallagma praevarum *(Arroyo Bluet)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S5**

I - Sympetrum madidum *(Red-veined Meadowhawk)* PSOC — Not Assessed Y

View in Field Guide View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S2S3**

B - Clark's Grebe *(Aechmophorus clarkii)* SOC — Not Assessed M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11** FWP SWAP: **SGCN3** PIF: **3**

B - Common Loon *(Gavia immer)* SOC — Not Assessed — M

Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** USFS: **Sensitive - Known in Forests (KOOT, LOLO)** FWP SWAP: **SGCN3** PIF: **1**

B - Trumpeter Swan *(Cygnus buccinator)* SOC — Not Assessed — M

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3** USFWS: **MBTA** USFS: **Sensitive - Known in Forests (BD)** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **1**

B - Evening Grosbeak *(Coccothraustes vespertinus)* SOC — Not Assessed — WM

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3** USFWS: **MBTA; BCC10** FWP SWAP: **SGCN3**

V - Astragalus barrii *(Barr's Milkvetch)* SOC — Not Assessed — Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G3G4** State: **S3** Plant Threat Score: **Medium - Low** CCVI: **Highly Vulnerable**

V - Carex gravida *(Heavy Sedge)* SOC — Not Assessed — Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3** Plant Threat Score: **High - Medium** CCVI: **Moderately Vulnerable**

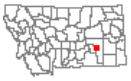
V - Physaria ludoviciana *(Silver Bladderpod)* SOC — Not Assessed — Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2S3** Plant Threat Score: **No Known Threats**

V - Senecio eremophilus *(Desert Groundsel)* SOC — Not Assessed — Y

View in Field Guide View Range Maps
Species of Concern - Native Species Global: **G5** State: **S1S2** Plant Threat Score: **No Known Threats**

Montana Natural Heritage Program
A program of the **Montana State Library's**
Natural Resource Information System



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Structured Surveys

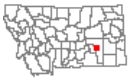
Summarized by: **Forsyth** *(Custom Area of Interest)*

The Montana Natural Heritage Program (MTNHP) records information on the locations where more than 80 different types of well-defined repeatable survey protocols capable of detecting an animal species or suite of animal species have been conducted by state, federal, tribal, university, or private consulting biologists. Examples of structured survey protocols tracked by MTNHP include: visual encounter and dip net surveys for pond breeding amphibians, point counts for birds, call playback surveys for selected bird species, visual surveys of migrating raptors, kick net stream reach surveys for macroinvertebrates, visual encounter cover object surveys for terrestrial mollusks, bat acoustic or mist net surveys, pitfall and/or snap trap surveys for small terrestrial mammals, track or camera trap surveys for large mammals, and trap surveys for turtles. Whenever possible, photographs of survey locations are stored in MTNHP databases.

MTNHP does not typically manage information on structured surveys for plants; surveys for invasive species may be a future exception.

Within the report area you have requested, structured surveys are summarized by the number of each type of structured survey protocol that has been conducted, the number of species detections/observations resulting from these surveys, and the most recent year a survey has been conducted.

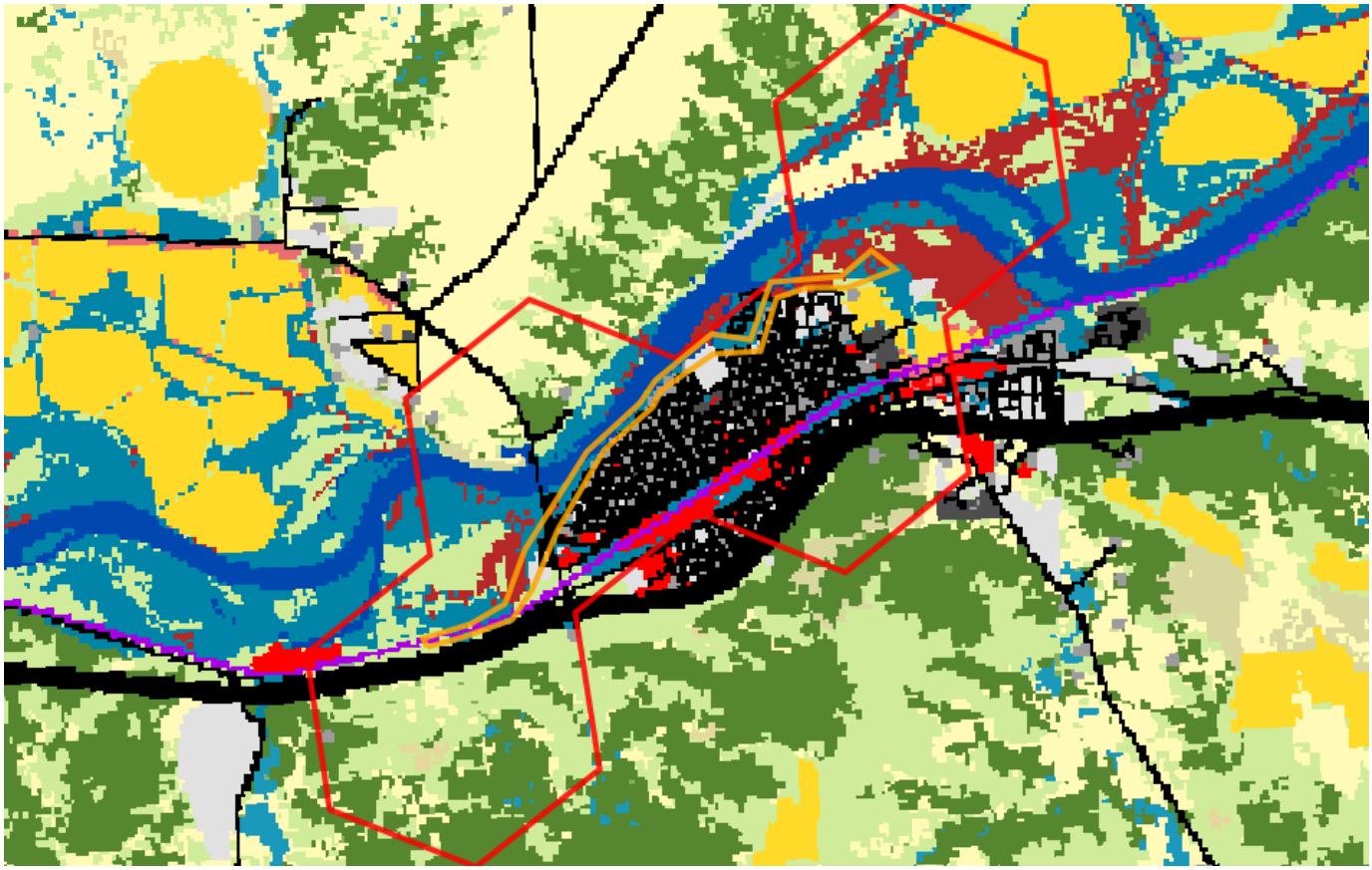
B-Bald Eagle Nest *(Bald Eagle Nest Survey)*	**Survey Count**: 7	**Obs Count**: 7	**Recent Survey**: 2014
B-Colonial-nesting Waterbirds *(Colonial-nesting Waterbird Surveys)*	**Survey Count**: 1	**Obs Count**: 1	**Recent Survey**: 2009
B-Cuckoo Playback Survey *(Riparian Playback Surveys for Cuckoos)*	**Survey Count**: 3	**Obs Count**:	**Recent Survey**: 2012
B-Nocturnal Calling Bird *(Spring Nocturnal Bird Calling Survey)*	**Survey Count**: 1	**Obs Count**: 1	**Recent Survey**: 2012
B-Raptor nest *(Raptor Nest Survey)*	**Survey Count**: 14	**Obs Count**: 7	**Recent Survey**: 2020
E-Eastern Heath Snail *(Eastern Heath Snail Survey)*	**Survey Count**: 1	**Obs Count**:	**Recent Survey**: 2012
E-Eurasian Water-milfoil Rake *(Rake tows/pulls for Eurasian Water-milfoil)*	**Survey Count**: 2	**Obs Count**:	**Recent Survey**: 2021
E-Invasive Mussel Plankton Tow *(Plankton tows for veligers of Invasive Mussels)*	**Survey Count**: 2	**Obs Count**:	**Recent Survey**: 2016
E-Kicknet *(Kicknet Collection Survey for Invasive Mussels and Snails)*	**Survey Count**: 4	**Obs Count**:	**Recent Survey**: 2021
E-Noxious Weed, Road-based *(Noxious Weed Road-based Visual Surveys)*	**Survey Count**: 16	**Obs Count**: 29	**Recent Survey**: 2003
E-Noxious Weed, Visual *(Noxious Weed Visual Surveys)*	**Survey Count**: 1	**Obs Count**: 2	**Recent Survey**: 2006
E-Visual Aquatic Invasives *(Visual Encounter Surveys for Aquatic Invasives on Shorelines or Underwater)*	**Survey Count**: 5	**Obs Count**:	**Recent Survey**: 2017
F-Fish Electrofishing *(Fish Electrofishing Surveys)*	**Survey Count**: 1	**Obs Count**: 12	**Recent Survey**: 2003
F-Fish Trapping/Netting *(Fish Trapping or Netting Surveys)*	**Survey Count**: 2	**Obs Count**: 18	**Recent Survey**: 2008
F-Fish Visual *(Fish Visual Survey)*	**Survey Count**: 1	**Obs Count**: 1	**Recent Survey**: 1992
I-Aquatic Invert Lotic Dipnet *(Invertebrate Lotic Site Dipnet and Visual Encounter Survey)*	**Survey Count**: 2	**Obs Count**: 11	**Recent Survey**: 2000
I-Bumble Bee *(Bumble Bee Collection Surveys)*	**Survey Count**: 1	**Obs Count**: 2	**Recent Survey**: 2015
I-Mussel *(Stream Mussel Survey)*	**Survey Count**: 6	**Obs Count**: 19	**Recent Survey**: 2009
I-Odonates/Butterfly VES *(Visual Encounter Survey for Damselfly/Dragonfly/Butterfly)*	**Survey Count**: 2	**Obs Count**: 2	**Recent Survey**: 1974
M-Bat Roost (Active Season) *(Bat Roost (Active Season) Survey)*	**Survey Count**: 1	**Obs Count**: 1	**Recent Survey**: 2019



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Land Cover

Summarized by: **Forsyth** *(Custom Area of Interest)*



17% (*436 Acres*)

Grassland Systems
Lowland/Prairie Grassland
Great Plains Mixedgrass Prairie

The system covers much of the eastern two-thirds of Montana, occurring continuously for hundreds of square kilometers, interrupted only by wetland/riparian areas or sand prairies. Soils are primarily fine and medium-textured. The growing season averages 115 days, ranging from 100 days on the Canadian border to 130 days on the Wyoming border. Climate is typical of mid-continental regions with long severe winters and hot summers. Grasses typically comprise the greatest canopy cover, and western wheatgrass (*Pascopyrum smithii*) is usually dominant. Other species include thickspike wheatgrass (*Elymus lanceolatus*), green needlegrass (*Nassella viridula*), blue grama (*Bouteloua gracilis*), and needle and thread (*Hesperostipa comata*). Near the Canadian border in north-central Montana, this system grades into rough fescue (*Festuca campestris)* and Idaho fescue (*Festuca idahoensis*) grasslands. Remnants of shortbristle needle and thread *(Hesperostipa curtiseta)* dominated vegetation are found in northernmost Montana and North Dakota, and are associated with productive sites, now mostly converted to farmland. Forb diversity is typically high. In areas of southeastern and central Montana where sagebrush steppe borders the mixed grass prairie, common plant associations include Wyoming big sagebrush-western wheatgrass (*Artemisia tridentata* ssp. *wyomingensis/ Pascopyrum smithii*). Fire and grazing are the primary drivers of this system. Drought can also impact it, in general favoring the shortgrass component at the expense of the mid-height grasses. With intensive grazing, cool season exotics such as Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and Japanese brome (*Bromus japonicus*) increase in dominance; both of these rhizomatous species have been shown to markedly decrease species diversity. Previously cultivated acres that have been re-vegetated with non-native plants have been transformed into associations such as Kentucky bluegrass (*Poa pratensis*)/western wheatgrass *(Pascopyrum smithii)* or into pure crested wheatgrass (*Agropyron cristatum)* stands.

No Image

13% (*340 Acres*)

Human Land Use
Developed
Other Roads

County, city and or rural roads generally open to motor vehicles.

13% (*338 Acres*)

Forest and Woodland Systems
Conifer-dominated forest and woodland (xeric-mesic)
Great Plains Ponderosa Pine Woodland and Savanna

These ponderosa pine (*Pinus ponderosa*) occurrences differ from the Rocky Mountain Ponderosa Pine Woodland and Savanna systems in that they are typically found within the matrix of the Great Plains grassland systems. They are often surrounded by mixed-grass prairie, in places where available soil moisture is higher or soils are more coarse and rocky. Elevation ranges from 1,189 meters (3,900 feet) in southeastern Montana to 1,646 m (5,400 feet) in north-central Montana. Occurrences are usually on east- and north-facing aspects. These woodlands can be physiognomically variable, ranging from very sparse patches of trees on drier sites, to nearly closed-canopy forest stands on north slopes or in draws where available soil moisture is higher.

12% (*316 Acres*)

Great Plains Floodplain

This system occurs along the Missouri and Yellowstone Rivers and their larger tributaries, including parts of the Little Missouri, Clarkâ€™s Fork Yellowstone, Powder, Tongue, Bighorn, Milk, and Musselshell rivers. These are the big perennial rivers of the region, with hydrologic dynamics largely driven by snowmelt and rainfall originating in their headwater watersheds, rather than local precipitation events. In the absence of disturbance, periodic flooding of fluvial and alluvial soils and channel migration will create depressions and backwaters that support a mosaic of wetland and riparian vegetation, whose composition and structure is sustained, altered and redistributed by hydrology. Dominant communities within this system range from floodplain forests to wet meadows to gravel/sand flats, linked by underlying soils and flooding regimes. In the western part of the systemâ€™s range in Montana, the overstory dominant species is black cottonwood (*Populus balsamifera ssp. trichocarpa*) with narrowleaf cottonwood *(Populus angustifolia)* and eastern cottonwood (*Populus deltoides)* occurring as co-dominants in the riparian/floodplain interface near the mountains. Further east, narrowleaf cottonwood and Plains cottonwood become dominant. In relatively undisturbed stands, willow (*Salix* species), redosier dogwood (*Cornus sericea*) and common chokecherry (*Prunus virginiana*) form a thick, multi-layered shrub understory, with a mixture of cool and warm season graminoid species below.

In Montana, many occurrences are now degraded to the point where the cottonwood overstory is the only remaining natural component. The hydrology of these floodplain systems has been affected by dams, highways, railroads and agricultural ditches, and as a result, they have lost their characteristic wetland /riparian mosaic structure. This has resulted in a highly altered community consisting of relict cottonwood stands with little regeneration. The understory vegetation is dominated by non-native pasture grasses, legumes and other introduced forbs, or by the disclimax western snowberry (*Symphoricarpos occidentalis*) and rose (*Rosa* species) shrub community.

8% (*213 Acres*)

Shrubland, Steppe and Savanna Systems
Sagebrush Steppe

Big Sagebrush Steppe

This widespread ecological system occurs throughout much of central Montana, and north and east onto the western fringe of the Great Plains. In central Montana, where this system occurs on both glaciated and non-glaciated landscapes, it differs slightly, with more summer rain than winter precipitation and more precipitation annually. Throughout its distribution, soils are typically deep and non-saline, often with a microphytic crust. This shrub-steppe is dominated by perennial grasses and forbs with greater than 25% cover. Overall shrub cover is less than 10 percent. In Montana and Wyoming, stands are more mesic, with more biomass of grass, and have less shrub diversity than stands farther to the west, and 50 to 90% of the occurrences are dominated by Wyoming big sagebrush with western wheatgrass (*Pascopyrum smithii*). Japanese brome (*Bromus japonicus*) and cheatgrass (*Bromus tectorum*) are indicators of disturbance, but cheatgrassis typically not as abundant as in the Intermountain West, possibly due to a colder climate. The natural fire regime of this ecological system maintains a patchy distribution of shrubs, preserving the steppe character. Shrubs may increase following heavy grazing and/or with fire suppression. In central and eastern Montana, complexes of prairie dog towns are common in this ecological system.

8% (*197 Acres*)

Recently Disturbed or Modified
Introduced Vegetation

Introduced Riparian and Wetland Vegetation

Areas where non-native vegetation dominates lands immediately adjacent to rivers and streams (riparian) or occupies 75% of more of a wetland. Typically this class describes Russian Olive along large rivers east of the Rocky Mountains.

7% (*170 Acres*)

Wetland and Riparian Systems
Open Water

Open Water

All areas of open water, generally with less than 25% cover of vegetation or soil

5% (*136 Acres*)

Human Land Use
Agriculture

Cultivated Crops

These areas used for the production of crops, such as corn, soybeans, small grains, sunflowers, vegetables, and cotton, typically on an annual cycle. Agricultural plant cover is variable depending on season and type of farming. Other areas include more stable land cover of orchards and vineyards.

No Image

5% (*118 Acres*)

Human Land Use
Developed

Interstate

National Highway System (NHS) limited access highways and their shoulders and rights of way.

2% (*61 Acres*)

Human Land Use
Developed

Low Intensity Residential

Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20-50% of total cover. These areas most commonly include single-family housing units in rural and suburban areas. Paved roadways may be classified into this category.

No Image

2% (*48 Acres*)

Human Land Use
Developed

Commercial / Industrial

Businesses, industrial parks, hospitals, airports; utilities in commercial/industrial areas.

No Image

2% (*45 Acres*)

Human Land Use
Developed

Railroad

Railroad tracks and railroad berms/rights of way, currently in use or capable of use

2% (*41 Acres*)

Human Land Use
Developed

Developed, Open Space

Vegetation (primarily grasses) planted in developed settings for recreation, erosion control, or aesthetic purposes. Impervious surfaces account for less than 20% of total cover. This category often includes highway and railway rights of way and graveled rural roads.

Additional Limited Land Cover

1% (*36 Acres*) Major Roads

1% (*31 Acres*) Great Plains Sand Prairie

1% (*15 Acres*) High Intensity Residential

<1% (*7 Acres*) Great Plains Badlands

<1% (*6 Acres*) Introduced Upland Vegetation - Annual and Biennial Forbland

<1% (*4 Acres*) Great Plains Riparian

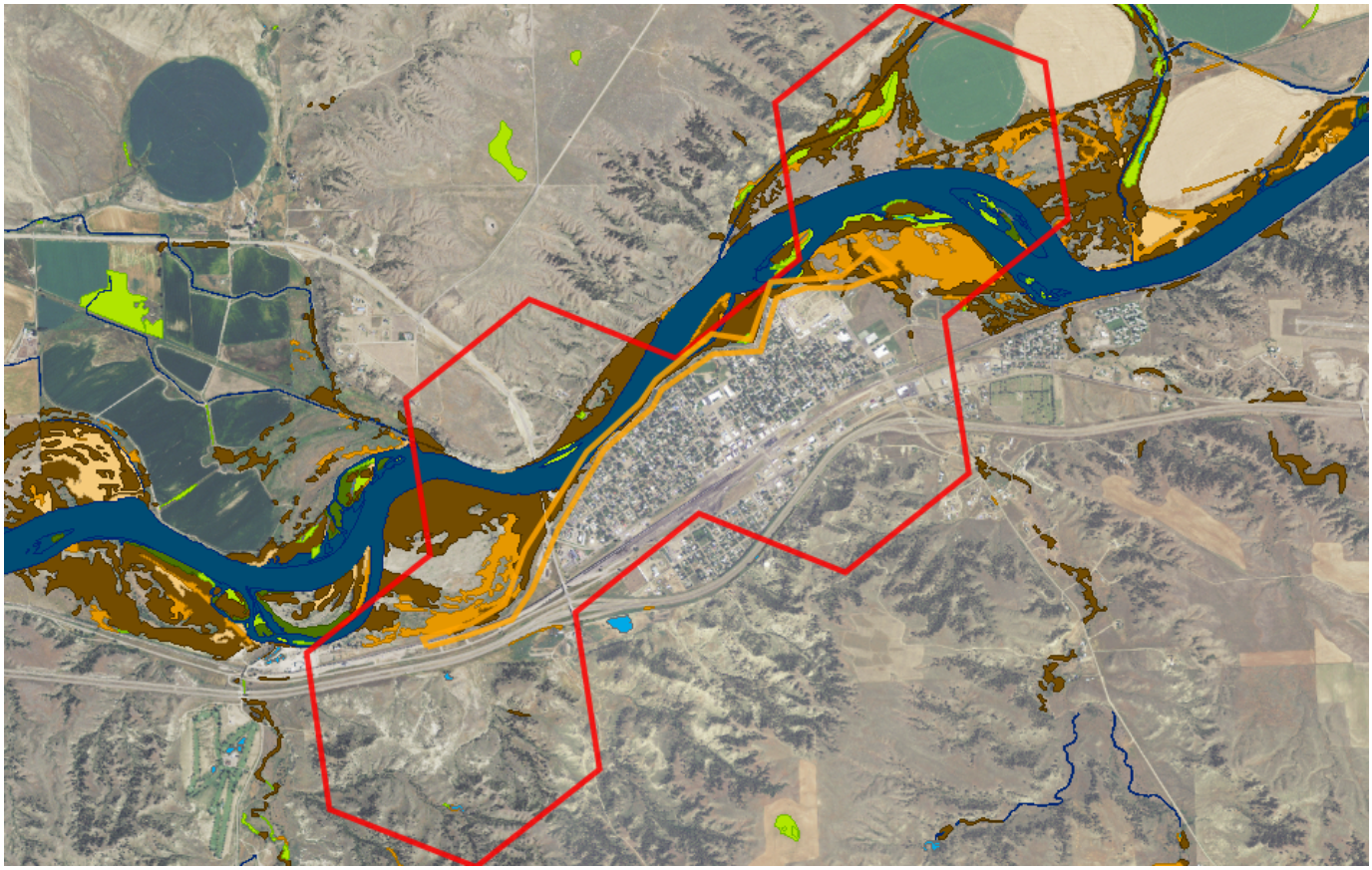
<1% (*3 Acres*) Great Plains Wooded Draw and Ravine

Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**

Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Wetland and Riparian

Summarized by: **Forsyth** *(Custom Area of Interest)*



Wetland and Riparian Mapping

Explain

P - Palustrine

AB - Aquatic Bed

F - Semipermanently Flooded	3 Acres	
(no modifier)	**2 Acres**	**PABF**
h - Diked/Impounded	**1 Acres**	**PABFh**
x - Excavated	**<1 Acres**	**PABFx**

P - Palustrine, AB - Aquatic Bed
Wetlands with vegetation growing on or below the water surface for most of the growing season.

US - Unconsolidated Shore

C - Seasonally Flooded	1 Acres	
(no modifier)	**1 Acres**	**PUSC**

P - Palustrine, US - Unconsolidated Shore
Wetlands with less than 75% areal cover of stones, boulders, or bedrock. AND with less than 30% vegetative cover AND the wetland is irregularly exposed due to seasonal or irregular flooding and subsequent drying.

EM - Emergent

A - Temporarily Flooded	22 Acres	
(no modifier)	**22 Acres**	**PEMA**
C - Seasonally Flooded	7 Acres	
(no modifier)	**7 Acres**	**PEMC**

P - Palustrine, EM - Emergent
Wetlands with erect, rooted herbaceous vegetation present during most of the growing season.

SS - Scrub-Shrub

A - Temporarily Flooded	3 Acres	
(no modifier)	**3 Acres**	**PSSA**

P - Palustrine, SS - Scrub-Shrub
Wetlands dominated by woody vegetation less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.

R - Riverine (Rivers)

2 - Lower Perennial

UB - Unconsolidated Bottom

H - Permanently Flooded	180 Acres	
(no modifier)	**180 Acres**	**R2UBH**

R - Riverine (Rivers), 2 - Lower Perennial, UB - Unconsolidated Bottom
Stream channels where the substrate is at least 25% mud, silt or other fine particles.

US - Unconsolidated Shore

A - Temporarily Flooded	11 Acres	
(no modifier)	**11 Acres**	**R2USA**
C - Seasonally Flooded	5 Acres	
(no modifier)	**5 Acres**	**R2USC**

R - Riverine (Rivers), 2 - Lower Perennial, US - Unconsolidated Shore
Shorelines with less than 75% areal cover of stones, boulders, or bedrock and less than 30% vegetation cover. The area is also irregularly exposed due to seasonal or irregular flooding and subsequent drying.

4 - Intermittent

Rivers), 4 - Intermittent, SB - Stream Bed
Active channel that contains periodic water flow.

C - Seasonally Flooded — 3 Acres

x - Excavated — **3 Acres** **R4SBCx**

Rp - Riparian

1 - Lotic

SS - Scrub-Shrub
(no modifier) — **124 Acres** **Rp1SS**

Rp - Riparian, 1 - Lotic, SS - Scrub-Shrub
This type of riparian area is dominated by woody vegetation that is less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.

FO - Forested
(no modifier) — **238 Acres** **Rp1FO**

Rp - Riparian, 1 - Lotic, FO - Forested
This riparian class has woody vegetation that is greater than 6 meters (20 feet) tall.

EM - Emergent
(no modifier) — **<1 Acres** **Rp1EM**

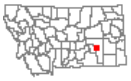
Rp - Riparian, 1 - Lotic, EM - Emergent
Riparian areas that have erect, rooted herbaceous vegetation during most of the growing season.

2 - Lentic

SS - Scrub-Shrub
(no modifier) — **<1 Acres** **Rp2SS**

Rp - Riparian, 2 - Lentic, SS - Scrub-Shrub
This type of riparian area is dominated by woody vegetation that is less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.

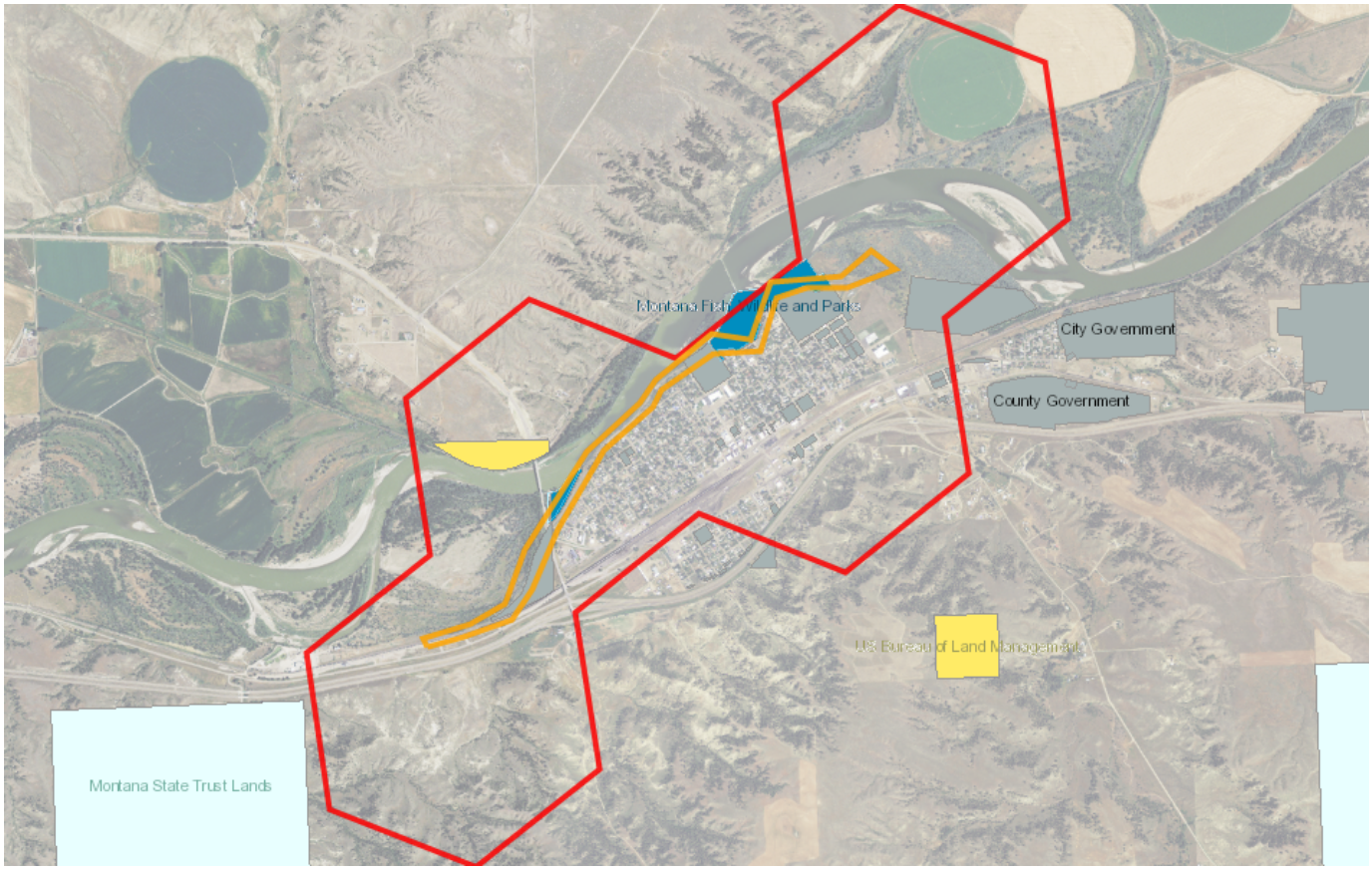
Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Land Management

Summarized by: **Forsyth** *(Custom Area of Interest)*

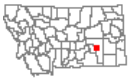


Land Management Summary

Explain

	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
Public Lands	162 Acres (6%)			
Federal	24 Acres (1%)			
US Bureau of Land Management	24 Acres (1%)			
BLM Owned	24 Acres (1%)			
State	39 Acres (2%)			
Montana Fish, Wildlife and Parks	39 Acres (2%)			
MTFWP Owned	39 Acres (2%)			
MTFWP Fishing Access Sites				39 Acres
Rosebud East Fishing Access Site				33 Acres
Rosebud West Fishing Access Site				6 Acres
Local	99 Acres (4%)			
Local Government	99 Acres (4%)			
Local Government Owned	99 Acres (4%)			
Private Lands or Unknown Ownership	2,395 Acres (94%)			

Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Biological Reports

Summarized by: **Forsyth** *(Custom Area of Interest)*

Within the report area you have requested, citations for all reports and publications associated with plant or animal observations in Montana Natural Heritage Program (MTNHP) databases are listed and, where possible, links to the documents are included.

The MTNHP plans to include reports associated with terrestrial and aquatic communities in the future as allowed for by staff resources. If you know of reports or publications associated with species or biological communities within the report area that are not shown in this report, please let us know: mtnhp@mt.gov

- Regele, Deb. 2020. ***Email with tabular data detailing nesting records for osprey on the Yellowstone River***. 30 November 2020.
- Stagliano, D.M. 2009. Data from aquatic mussel sampling for the SWG Freshwater Mussel Project

Tobalske, Claudine and Linda Vance. 2017.***Predicting the distribution of Russian Olive stands in eastern Montana valley bottoms using NAIP imagery***. Report to the US EPA. Montana Natural Heritage Program. Helena, MT. 40pp.

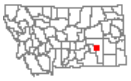
Montana Natural Heritage Program
A program of the **Montana State Library's Natural Resource Information System**

Model Icons
- Suitable (native range)
- Optimal Suitability
- Moderate Suitability
- Low Suitability
- Suitable (introduced range)

Habitat Icons
- Common
- Occasional

Range Icons
- Non-native

Num Obs
Count of obs with 'good precision' (<=1000m)
+ indicates additional 'poor precision' obs (1001m-10,000m)



Latitude	Longitude
46.24290	-106.65119
46.29043	-106.71628

Invasive and Pest Species

Summarized by: **Forsyth** *(Custom Area of Interest)*

	# Obs	Predicted Model	Range

Aquatic Invasive Species

V - Myriophyllum spicatum *(Eurasian Water-milfoil)* N2A/AIS

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: 50% Moderate (inductive), 25% Low (inductive)

V - Butomus umbellatus *(Flowering-rush)* N2A/AIS

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: 50% Low (inductive)

V - Nymphaea odorata *(American Water-lily)* AIS

View in Field Guide | View Predicted Models | View Range Maps
Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: 100% Suitable (introduced range) (deductive)

F - Common Carp *(Cyprinus carpio)* AIS — 2 +

View in Field Guide | View Predicted Models | View Range Maps
Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: 75% Suitable (introduced range) (deductive)

Noxious Weeds: Priority 1A

V - Centaurea solstitialis *(Yellow Starthistle)* N1A

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: 50% Optimal (inductive), 25% Moderate (inductive), 25% Low (inductive)

V - Isatis tinctoria *(Dyer's Woad)* N1A

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: 50% Optimal (inductive), 25% Moderate (inductive), 25% Low (inductive)

V - Phragmites australis ssp. australis *(European Common Reed)* N1A

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **G5T5** State: **SNA**
Predicted Models: 25% Optimal (inductive), 25% Moderate (inductive), 50% Low (inductive)

V - Taeniatherum caput-medusae *(Medusahead)* N1A

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **G4G5** State: **SNA**
Predicted Models: 75% Low (inductive)

Noxious Weeds: Priority 1B

V - Lythrum salicaria *(Purple Loosestrife)* N1B

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **G5** State: **SNA**
Predicted Models: 50% Optimal (inductive), 25% Moderate (inductive), 25% Low (inductive)

V - Polygonum x bohemicum *(Bohemian Knotweed)* N1B

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **GNA** State: **SNA**
Predicted Models: 50% Optimal (inductive)

V - Polygonum cuspidatum *(Japanese Knotweed)* N1B

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **GNRTNR** State: **SNA**
Predicted Models: 25% Moderate (inductive), 50% Low (inductive)

V - Cytisus scoparius *(Scotch Broom)* N1B

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: 100% Low (inductive)

Noxious Weeds: Priority 2A

V - Hieracium praealtum *(Kingdevil Hawkweed)* N2A

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: 50% Optimal (inductive), 50% Moderate (inductive)

V - Rhamnus cathartica *(Common Buckthorn)* N2A

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: 50% Optimal (inductive), 50% Moderate (inductive)

V - Lepidium latifolium *(Perennial Pepperweed)* N2A

Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 50% Moderate (inductive), L 50% Low (inductive)

V - Myriophyllum spicatum *(Eurasian Water-milfoil)* N2A/AIS

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 50% Moderate (inductive), L 25% Low (inductive)

V - Ventenata dubia *(Ventenata)* N2A

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 25% Moderate (inductive), L 75% Low (inductive)

V - Butomus umbellatus *(Flowering-rush)* N2A/AIS

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**

Predicted Models: L 50% Low (inductive)

Noxious Weeds: Priority 2B

V - Tamarix ramosissima *(Salt Cedar)* N2B 14

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: O 75% Optimal (inductive), M 25% Moderate (inductive)

V - Acroptilon repens *(Russian Knapweed)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: O 25% Optimal (inductive), M 75% Moderate (inductive)

V - Centaurea diffusa *(Diffuse Knapweed)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Convolvulus arvensis *(Field Bindweed)* N2B 12

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Euphorbia virgata *(Leafy Spurge)* N2B 2

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Centaurea stoebe *(Spotted Knapweed)* N2B 2

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

V - Lepidium draba *(Whitetop)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

V - Linaria dalmatica *(Dalmatian Toadflax)* N2B 4

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **G5** State: **SNA**

Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

V - Tanacetum vulgare *(Common Tansy)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

V - Cirsium arvense *(Canada Thistle)* N2B 24

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **G5** State: **SNA**

Predicted Models: M 25% Moderate (inductive), L 75% Low (inductive)

V - Cynoglossum officinale *(Common Hound's-tongue)* N2B 3

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Berteroa incana *(Hoary False-alyssum)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 75% Low (inductive)

V - Potentilla recta *(Sulphur Cinquefoil)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 75% Low (inductive)

V - Hypericum perforatum *(Common St. John's-wort)* N2B

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 50% Low (inductive)

V - Leucanthemum vulgare *(Oxeye Daisy)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 25% Low (inductive)

V - Linaria vulgaris *(Yellow Toadflax)* N2B

View in Field Guide View Predicted Models View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 25% Low (inductive)

Regulated Weeds: Priority 3

V - Elaeagnus angustifolia *(Russian Olive)* R3

View in Field Guide View Predicted Models View Range Maps

Regulated Weed: Priority 3 - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: O 50% Optimal (inductive), M 50% Moderate (inductive)

V - Bromus tectorum *(Cheatgrass)* R3

View in Field Guide View Predicted Models View Range Maps

Regulated Weed: Priority 3 - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

Biocontrol Species

I - Oberea erythrocephala *(Red-headed Leafy Spurge Stem Borer)* BIOCNTRL

View in Field Guide View Predicted Models View Range Maps

Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: O 25% Optimal (inductive), M 75% Moderate (inductive)

I - Aphthona lacertosa *(Brown-legged Leafy Spurge Flea Beetle)* BIOCNTRL

View in Field Guide View Predicted Models View Range Maps

Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

I - Mecinus janthiniformis *(Dalmatian Toadflax Stem-boring Weevil)* BIOCNTRL

View in Field Guide View Predicted Models View Range Maps

Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

I - Aphthona nigriscutis *(Black Dot Leafy Spurge Flea Beetle)* BIOCNTRL

View in Field Guide View Predicted Models View Range Maps

Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 75% Moderate (inductive), L 25% Low (inductive)

Introduction to Montana Natural Heritage Program

P.O. Box 201800 • 1515 East Sixth Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • phone 406.444.5363 • mtnhp.org

Introduction

The Montana Natural Heritage Program (MTNHP) is Montana's source for reliable and objective information on Montana's native species and habitats, emphasizing those of conservation concern. MTNHP was created by the Montana legislature in 1983 as part of the Natural Resource Information System (NRIS) at the Montana State Library (MSL). MTNHP is "a program of information acquisition, storage, and retrieval for data relating to the flora, fauna, and biological community types of Montana" (MCA 90-15-102). MTNHP's activities are guided by statute as well as through ongoing interaction with, and feedback from, principal data source agencies such as Montana Fish, Wildlife, and Parks, the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, the Montana University System, the US Forest Service, and the US Bureau of Land Management. Since the first staff was hired in 1985, the Program has logged a long record of success, and developed into a highly respected, service-oriented program. MTNHP is widely recognized as one of the most advanced and effective of over 80 natural heritage programs throughout the Western Hemisphere.

Vision

Our vision is that public agencies, the private sector, the education sector, and the general public will trust and rely upon MTNHP as the source for information and expertise on Montana's species and habitats, especially those of conservation concern. We strive to provide easy access to our information in order for users to save time and money, speed environmental reviews, and inform decision making.

Core Values

- We endeavor to be a single statewide source of accurate and up-to-date information on Montana's plants, animals, and aquatic and terrestrial biological communities.
- We actively listen to our data users and work responsively to meet their information and training needs.
- We strive to provide neutral, trusted, timely, and equitable service to all of our information users.
- We make every effort to be transparent to our data users in setting work priorities and providing data products.

Confidentiality

All information requests made to the Montana Natural Heritage Program are considered library records and are protected from disclosure by the Montana Library Records Confidentiality Act (MCA 22-1-11).

Information Managed

Information managed at the Montana Natural Heritage Program is botanical, zoological, and ecological information that describes the distribution (e.g., observations, structured surveys, range polygons, predicted habitat suitability models), conservation status (e.g., global and state conservation status ranks, including threats), and other supporting information (e.g., accounts and references) on the biology and ecology of species and biological communities.

Data Use Terms and Conditions

- Montana Natural Heritage Program (MTNHP) products and services are based on biological data and the objective interpretation of those data by professional scientists. MTNHP does not advocate any particular philosophy of natural resource protection, management, development, or public policy.
- MTNHP has no natural resource management or regulatory authority. Products, statements, and services from MTNHP are intended to inform parties as to the state of scientific knowledge about certain natural resources, and to further develop that knowledge. The information is not intended as natural resource management guidelines or prescriptions or a determination of environmental impacts. MTNHP recommends consultation with appropriate state, federal, and tribal resource management agencies and authorities in the area where your project is located.
- Information on the status and spatial distribution of biological resources produced by MTNHP are intended to inform parties of the state-wide status, known occurrence, or the likelihood of the presence of those resources. **These products are not intended to substitute for field-collected data, nor are they intended to be the sole basis for natural resource management decisions.**
- MTNHP does not portray its data as exhaustive or comprehensive inventories of rare species or biological communities. **Field verification of the absence or presence of sensitive species and biological communities will always be an important obligation of users of our data.**
- MTNHP responds equally to all requests for products and services, regardless of the purpose or identity of the requester.
- Because MTNHP constantly updates and revises its databases with new data and information, products will become outdated over time. Interested parties are encouraged to obtain the most current information possible from MTNHP, rather than using older products. We add, review, update, and delete records on a daily basis. Consequently, we strongly advise that you update your MTNHP data sets at a minimum of every four months for most applications of our information.
- MTNHP data require a certain degree of biological expertise for proper analysis, interpretation, and application. Our staff is available to advise you on questions regarding the interpretation or appropriate use of the data that we provide. See Contact Information for MTNHP Staff
- The information provided to you by MTNHP may include sensitive data that if publicly released might jeopardize the welfare of threatened, endangered, or sensitive species or biological communities. This information is intended for distribution or use only within your department, agency, or business. Subcontractors may have access to the data during the course of any given project, but should not be given a copy for their use on subsequent, unrelated work.
- MTNHP data are made freely available. Duplication of hard-copy or digital MTNHP products with the intent to sell is prohibited without written consent by MTNHP. Should you be asked by individuals outside your organization for the type of data that we provide, please refer them to MTNHP.
- MTNHP and appropriate staff members should be appropriately acknowledged as an information source in any third-party product involving MTNHP data, reports, papers, publications, or in maps that incorporate MTNHP graphic elements.
- Sources of our data include museum specimens, published and unpublished scientific literature, field surveys by state and federal agencies and private contractors, and reports from knowledgeable individuals. MTNHP actively solicits and encourages additions, corrections and updates, new observations or collections, and comments on any of the data we provide.
- MTNHP staff and contractors do not enter or cross privately-owned lands without express permission from the landowner. However, the program cannot guarantee that information provided to us by others was obtained under adherence to this policy.

Suggested Contacts for Natural Resource Management Agencies

As required by Montana statute (MCA 90-15), the Montana Natural Heritage Program works with state, federal, tribal, nongovernmental organizations, and private partners to ensure that the latest animal and plant distribution and status information is incorporated into our databases so that it can be used to inform a variety of permitting and planning processes and management decisions. We encourage you to contact state, federal, and tribal resource management agencies in the area where your project is located and review the permitting overviews by the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation and the Index of Environmental Permits for Montana for guidelines relevant to your efforts. In particular, we encourage you to contact the Montana Department of Fish, Wildlife, and Parks for the latest data and management information regarding hunted and high-profile management species and to use the U.S. Fish and Wildlife Service's Information Planning and Consultation (IPAC) website regarding U.S. Endangered Species Act listed Threatened, Endangered, or Candidate species.

For your convenience, we have compiled a list of relevant agency contacts and links below:

Montana Fish, Wildlife, and Parks

Fish Species	Zachary Shattuck zshattuck@mt.gov (406) 444-1231 or Eric Roberts eroberts@mt.gov (406) 444-5334
American Bison Black-footed Ferret Black-tailed Prairie Dog Bald Eagle Golden Eagle Common Loon Least Tern Piping Plover Whooping Crane	Kristian Smucker KSmucker@mt.gov (406) 444-5209
Grizzly Bear Greater Sage Grouse Trumpeter Swan Big Game Upland Game Birds Furbearers	Brian Wakeling Brian.Wakeling@mt.gov (406) 444-3940
Managed Terrestrial Game and Nongame Animal Data	Smith Wells – MFWP Data Analyst smith.wells@mt.gov (406) 444-3759
Fisheries Data	Ryan Alger – MFWP Data Analyst ryan.alger@mt.gov (406) 444-5365
Wildlife and Fisheries Scientific Collector's Permits	https://fwp.mt.gov/buyandapply/commercialwildlifeandscientificpermits/scientific Kammi McClain for Wildlife Kammi.McClain@mt.gov (406) 444-2612 Kim Wedde for Fisheries kim.wedde@mt.gov (406) 444-5594
Fish and Wildlife Recommendations for Subdivision Development	Charlie Sperry CSperry@mt.gov (406) 444-3888 See https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations
Regional Contacts  	Region 1 (Kalispell) (406) 752-5501 fwprg12@mt.gov Region 2 (Missoula) (406) 542-5500 fwprg22@mt.gov Region 3 (Bozeman) (406) 577-7900 fwprg3@mt.gov Region 4 (Great Falls) (406) 454-5840 fwprg42@mt.gov Region 5 (Billings) (406) 247-2940 fwprg52@mt.gov Region 6 (Glasgow) (406) 228-3700 fwprg62@mt.gov Region 7 (Miles City) (406) 234-0900 fwprg72@mt.gov

Montana Department of Agriculture
General Contact Information: https://agr.mt.gov/About/Office-Locations/Office-Locations-and-Field-Offices
Noxious Weeds: https://agr.mt.gov/Noxious-Weeds

Montana Department of Environmental Quality
Permitting and Operator Assistance for all Environmental Permits: https://deq.mt.gov/Permitting

Montana Department of Natural Resources and Conservation
Overview of, and contacts for, licenses and permits for state lands, water, and forested lands:
http://dnrc.mt.gov/licenses-and-permits

Stream Permitting (310 permits) and an overview of various water and stream related permits (e.g., Stream Protection Act 124, Federal Clean Water Act 404, Federal Rivers and Harbors Act Section 10, Short-term Water Quality Standard for Turbidity 318 Authorization, etc.).
http://dnrc.mt.gov/divisions/cardd/conservation-districts/the-310-law

Flood and Fire Resources: http://dnrc.mt.gov/flood-and-fire

Bureau of Land Management

Montana Field Office Contacts:

Billings	(406) 896-5013
Butte	(406) 533-7600
Dillon	(406) 683-8000
Glasgow	(406) 228-3750
Havre	(406) 262-2820
Lewistown	(406) 538-1900
Malta	(406) 654-5100
Miles City	(406) 233-2800
Missoula	(406) 329-3914

United States Army Corps of Engineers
Montana Regulatory Office for federal permits related to construction in water and wetlands
https://www.nwo.usace.army.mil/Missions/Regulatory-Program/Montana/ (406) 441-1375

United States Environmental Protection Agency
Environmental information, notices, permitting, and contacts https://www.epa.gov/mt
Gateway to state resource locators https://www.envcap.org/srl/index.php

United States Fish and Wildlife Service
Information Planning and Conservation (IPAC) website: https://ecos.fws.gov/ipac/
Montana Ecological Services Field Office: https://www.fws.gov/montanafieldoffice/ (406) 449-5225

United States Forest Service

Regional Office – Missoula, Montana Contacts			
Wildlife Program Leader	Tammy Fletcher	tammy.fletcher2@usda.gov	(406) 329-3086
Wildlife Ecologist	Cara Staab	cara.staab@usda.gov	(406) 329-3677
Fish Program Leader	Scott Spaulding	scott.spaulding@usda.gov	(406) 329-3287
Fish Ecologist	Cameron Thomas	cameron.thomas@usda.gov	(406) 329-3087
TES Program	Lydia Allen	lydia.allen@usda.gov	(406) 329-3558
Interagency Grizzly Bear Coordinator	Scott Jackson	scott.jackson@usda.gov	(406) 329-3664
Acting Regional Botanist	Amanda Hendrix	amanda.hendrix@usda.gov	(651) 447-3016
Regional Vegetation Ecologist	Mary Manning	marry.manning@usda.gov	(406) 329-3304
Invasive Species Program Manager	Michelle Cox	michelle.cox2@usda.gov	(406) 329-3669

Tribal Nations

[Assiniboine & Gros Ventre Tribes – Fort Belknap Reservation]
[Assiniboine & Sioux Tribes – Fort Peck Reservation]
[Blackfeet Tribe - Blackfeet Reservation]
[Chippewa Creek Tribe - Rocky Boy's Reservation]
[Crow Tribe – Crow Reservation]
[Little Shell Chippewa Tribe]
[Northern Cheyenne Tribe – Northern Cheyenne Reservation]
[Salish & Kootenai Tribes - Flathead Reservation]

Natural Heritage Programs and Conservation Data Centers in Surrounding States and Provinces

[Alberta Conservation Information Management System]
[British Columbia Conservation Data Centre]
[Idaho Natural Heritage Program]
[North Dakota Natural Heritage Program]
[Saskatchewan Conservation Data Centre]
[South Dakota Natural Heritage Program]
[Wyoming Natural Diversity Database]

Invasive Species Management Contacts and Information

Aquatic Invasive Species

[Montana Fish, Wildlife, and Parks Aquatic Invasive Species staff]
[Montana Department of Natural Resources and Conservation's Aquatic Invasive Species Grant Program]
[Montana Invasive Species Council (MISC)]
[Upper Columbia Conservation Commission (UC3)]

Noxious Weeds

[Montana Weed Control Association Contacts Webpage]
[Montana Biological Weed Control Coordination Project]
[Montana Department of Agriculture - Noxious Weeds]
[Montana Weed Control Association]
[Montana Fish, Wildlife, and Parks - Noxious Weeds]
[Montana State University Integrated Pest Management Extension]
[Integrated Noxious Weed Management after Wildfires]
[Fire Management and Invasive Plants]

Introduction to Native Species

Within the report area you have requested, separate summaries are provided for: (1) Species Occurrences (SO) for plant and animal Species of Concern, Special Status Species (SSS), Important Animal Habitat (IAH) and some Potential Plant Species of Concern; (2) other observed non Species of Concern or Species of Concern without suitable documentation to create Species Occurrence polygons; and (3) other non-documented species that are potentially present based on their range, predicted suitable habitat model output, or presence of associated habitats. Each of these summaries provides the following information when present for a species: (1) the number of Species Occurrences and associated delineation criteria for construction of these polygons that have long been used for considerations of documented Species of Concern in environmental reviews; (2) the number of observations of each species; (3) the geographic range polygons for each species that the report area overlaps; (4) predicted relative habitat suitability classes that are present if a predicted suitable habitat model has been created; (5) the percent of the report area that is mapped as commonly associated or occasionally associated habitat as listed for each species in the Montana Field Guide; and (6) a variety of conservation status ranks and links to species accounts in the Montana Field Guide. Details on each of these information categories are included under relevant section headers below or are defined on our Species Status Codes page. In presenting this information, the Montana Natural Heritage Program (MTNHP) is working towards assisting the user with rapidly determining what species have been documented and what species are potentially present in the report area. We remind users that this information is likely incomplete as surveys to document native and introduced species are lacking in many areas of the state, information on introduced species has only been tracked relatively recently, the MTNHP's staff and resources are restricted by budgets, and information is constantly being added and updated in our databases. **Thus, field verification by professional biologists of the absence or presence of species and biological communities will always be an important obligation of users of our data.**

If you are aware of observation datasets that the MTNHP is missing, please report them to the Program Botanist apipp@mt.gov or Senior Zoologist dbachen@mt.gov. If you have animal observations that you would like to contribute, you can submit them to our Animal Observation Entry Tool You can also submit plant and animal observations via Excel spreadsheets posted at https://mtnhp.org/observations.asp or via the Montana Natural Heritage Observations project in iNaturalist

Observations

The MTNHP manages information on several million animal and plant observations that have been reported by professional biologists and private citizens from across Montana. The majority of these observations are submitted in digital format from standardized databases associated with research or monitoring efforts and spreadsheets of incidental observations submitted by professional biologists and amateur naturalists. At a minimum, accepted observation records must contain a credible species identification (i.e. appropriate geographic range, date, and habitat and, if species are difficult to identify, a photograph and/or notes on key identifying features), a date or date range, observer name, locational information (ideally with latitude and longitude in decimal degrees), notes on numbers observed, and species behavior or habitat use (e.g., is the observation likely associated with reproduction). Bird records are also required to have information associated with date-appropriate breeding or overwintering status of the species observed. MTNHP reviews observation records to ensure that they are mapped correctly, occur within date ranges when the species is known to be present or detectable, occur within the known seasonal geographic range of the species, and occur in appropriate habitats. MTNHP also assigns each record a locational uncertainty value in meters to indicate the spatial precision associated with the record's mapped coordinates. Only records with locational uncertainty values of 10,000 meters or less are included in environmental summary reports and number summaries are only provided for records with locational uncertainty values of 1,000 meters or less.

Species Occurrences

The MTNHP evaluates plant and animal observation records for species of higher conservation concern to determine whether they are worthy of inclusion in the Species Occurrence (SO) layer for use in environmental reviews; observations not worthy of inclusion in this layer include long distance dispersal events, migrants observed away from key migratory stopover habitats, and winter observations. An SO is a polygon depicting what is known about a species occupancy from direct observation with a defined level of locational uncertainty and any inference that can be made about adjacent habitat use from the latest peer-reviewed science. If an observation can be associated with a map feature that can be tracked (e.g., a wetland boundary for a wetland associated plant) then this polygon feature is used to represent the SO. Areas that can be inferred as probable occupied habitat based on direct observation of a species location and what is known about the foraging area or home range size of the species may be incorporated into the SO. Species Occurrences generally belong to one of the following categories:

Plant Species Occurrences

A documented location of a specimen collection or observed plant population. In some instances, adjacent, spatially separated clusters are considered subpopulations and are grouped as one occurrence (e.g., the subpopulations occur in ecologically similar habitats, and their spatial proximity likely allows them to interbreed). Tabular information for multiple observations at the same SO location is generally linked to a single polygon. Plant SO's are only created for Species of Concern and Potential Species of Concern.

Animal Species Occurrences

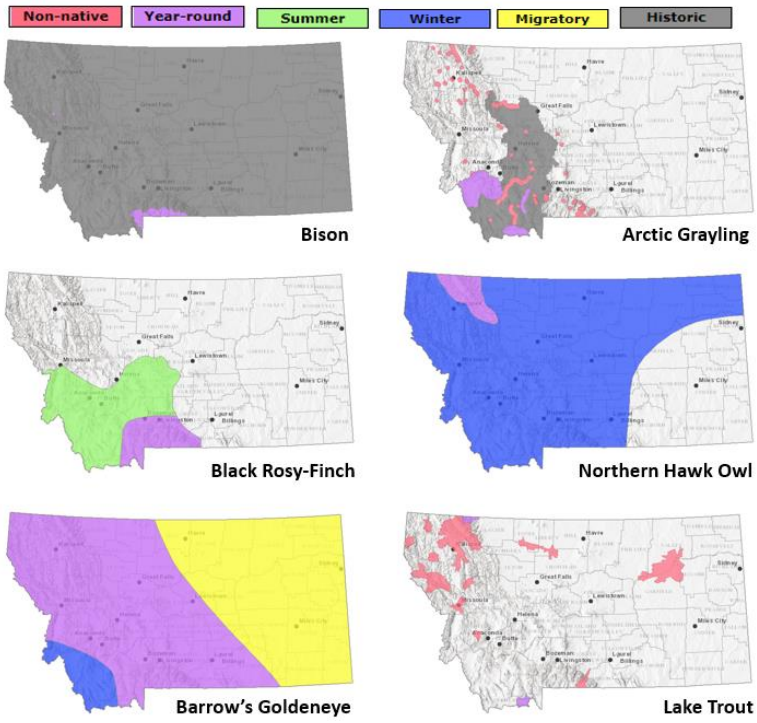
The location of a verified observation or specimen record typically known or assumed to represent a breeding population or a portion of a breeding population. Animal SO's are generally: (1) buffers of terrestrial point observations based on documented species' home range sizes; (2) buffers of stream segments to encompass occupied streams and immediate adjacent riparian habitats; (3) polygonal features encompassing known or likely breeding populations (e.g., a wetland for some amphibians or a forested portion of a mountain range for some wide ranging carnivores); or (4) combinations of the above. Tabular information for multiple observations at the same SO location is generally linked to a single polygon. Species Occurrence polygons may encompass some unsuitable habitat in some instances in order to avoid heavy data processing associated with clipping out habitats that are readily assessed as unsuitable by the data user (e.g., a point buffer of a terrestrial species may overlap into a portion of a lake that is obviously inappropriate habitat for the species). Animal SO's are only created for Species of Concern and Special Status Species (e.g., Bald Eagle).

Other Occurrence Polygons

These include significant biological features not included in the above categories, such as Important Animal Habitats like bird rookeries and bat roosts, and peatlands or other wetland and riparian communities that support diverse plant and animal communities.

Geographic Range Polygons

Geographic range polygons are still under development for most plant and invertebrate species. Native year-round, summer, winter, migratory and historic geographic range polygons as well as polygons for introduced populations have been defined for most vertebrate animal species for which there are enough observations, surveys, and knowledge of appropriate seasonal habitat use to define them (see examples to left). These native or introduced range polygons bound the extent of known or likely occupied habitats for non-migratory and relative sedentary species and the regular extent of known or likely occupied habitats for migratory and long-distance dispersing species; polygons may include unsuitable intervening habitats. For most species, a single polygon can represent the year-round or seasonal range, but breeding ranges of some colonial nesting water birds and some introduced species are represented more patchily when supported by data. Some ranges are mapped more broadly than actual distributions in order to be visible on statewide maps (e.g., fish).



Predicted Suitable Habitat Models

Predicted habitat suitability models have been created for plant and animal Species of Concern and are undergoing development for non-Species of Concern. For species for which models have been completed, the environmental summary report includes simple rule-based associations with streams for aquatic species and seasonal habitats for game species as well as mathematically complex Maximum Entropy models (Phillips et al. 2006, Ecological Modeling 190:231-259) constructed from a variety of statewide biotic and abiotic layers and presence only data for individual species for most terrestrial species. For the Maximum Entropy models, we reclassified 90 x 90-meter continuous model output into suitability classes (unsuitable, low, moderate, and optimal) then aggregated that into the one square mile hexagons used in the environmental summary report; this is the finest spatial scale we suggest using this information in management decisions and survey planning. Full model write ups for individual species that discuss model goals, inputs, outputs, and evaluation in much greater detail are posted on the MTNHP's Predicted Suitable Habitat Models webpage. Evaluations of predictive accuracy and specific limitations are included with the metadata for models of individual species. **Model outputs should not be used in place of on-the-ground surveys for species. Instead model outputs should be used in conjunction with habitat evaluations to determine the need for on-the-ground surveys for species.** We suggest that the percentage of predicted optimal and moderate suitable habitat within the report area be used in conjunction with geographic range polygons and the percentage of commonly associated habitats to generate lists of potential species that may occupy broader landscapes for the purposes of landscape-level planning.

Associated Habitats

Within the boundary of the intersected hexagons, we provide the approximate percentage of commonly or occasionally associated habitat for vertebrate animal species that regularly breed, overwinter, or migrate through the state; a detailed list of commonly and occasionally associated habitats is provided in individual species accounts in the Montana Field Guide We assigned common or occasional use of each of the ecological

systems mapped in Montana by: (1) using personal knowledge and reviewing literature that summarizes the breeding, overwintering, or migratory habitat requirements of each species; (2) evaluating structural characteristics and distribution of each ecological system relative to the species' range and habitat requirements; (3) examining the observation records for each species in the state-wide point observation database associated with each ecological system; and (4) calculating the percentage of observations associated with each ecological system relative to the percent of Montana covered by each ecological system to get a measure of numbers of observations versus availability of habitat. Species that breed in Montana were only evaluated for breeding habitat use, species that only overwinter in Montana were only evaluated for overwintering habitat use, and species that only migrate through Montana were only evaluated for migratory habitat use. In general, species were listed as associated with an ecological system if structural characteristics of used habitat documented in the literature were present in the ecological system or large numbers of point observations were associated with the ecological system. However, species were not listed as associated with an ecological system if there was no support in the literature for use of structural characteristics in an ecological system, even if point observations were associated with that system. Common versus occasional association with an ecological system was assigned based on the degree to which the structural characteristics of an ecological system matched the preferred structural habitat characteristics for each species as represented in the scientific literature. The percentage of observations associated with each ecological system relative to the percent of Montana covered by each ecological system was also used to guide assignment of common versus occasional association.

We suggest that the percentage of commonly associated habitat within the report area be used in conjunction with geographic range polygons and the percentage of predicted optimal and moderate suitable habitat from predictive models to generate lists of potential species that may occupy broader landscapes for the purposes of landscape-level planning. Users of this information should be aware that land cover mapping accuracy is particularly problematic when the systems occur as small patches or where the land cover types have been altered over the past decade. Thus, particular caution should be used when using the associations in assessments of smaller areas (e.g., evaluations of public land survey sections).

Introduction to Land Cover

Land Use/Land Cover is one of 15 Montana Spatial Data Infrastructure framework layers considered vital for making statewide maps of Montana and understanding its geography. The layer records all Montana natural vegetation, land cover and land use, classified from satellite and aerial imagery, mapped at a scale of 1:100,000, and interpreted with supporting ground-level data. The baseline map is adapted from the Northwest ReGAP (NWGAP) project land cover classification, which used 30m resolution multi-spectral Landsat imagery acquired between 1999 and 2001. Vegetation classes were drawn from the Ecological System Classification developed by NatureServe (Comer et al. 2003). The land cover classes were developed by Anderson et al. (1976). The NWGAP effort encompasses 12 map zones. Montana overlaps seven of these zones. The two NWGAP teams responsible for the initial land cover mapping effort in Montana were Sanborn and NWGAP at the University of Idaho. Both Sanborn and NWGAP employed a similar modeling approach in which Classification and Regression Tree (CART) models were applied to Landsat ETM+ scenes. The Spatial Analysis Lab within the Montana Natural Heritage Program was responsible for developing a seamless Montana land cover map with a consistent statewide legend from these two separate products. Additionally, the Montana land cover layer incorporates several other land cover and land use products (e.g., MSDI Structures and Transportation themes and the Montana Department of Revenue Final Land Unit classification) and reclassifications based on plot-level data and the latest NAIP imagery to improve accuracy and enhance the usability of the theme. Updates are done as partner support and funding allow, or when other MSDI datasets can be incorporated. Recent updates include fire perimeters and agricultural land use (annually), energy developments such as wind, oil and gas installations (2014), roads, structures and other impervious surfaces (various years): and local updates/improvements to specific ecological systems (e.g., central Montana grassland and sagebrush ecosystems). Current and previous versions of the Land Use/Land Cover layer with full metadata are available for download at the Montana State Library's Geographic Information Clearinghouse

Within the report area you have requested, land cover is summarized by acres of Level 1, Level 2, and Level 3 Ecological Systems.

Literature Cited

Anderson, J.R. E.E. Hardy, J.T. Roach, and R.E. Witmer. 1976. A land use and land cover classification system for use with remote sensor data. U.S. Geological Survey Professional Paper 964.

Comer, P., D. Faber-Langendoen, R. Evans, S. Gawler, C. Josse, G. Kittel, S. Menard, M. Pyne, M. Reid, K. Schulz, K. Snow, and J. Teague. 2003. Ecological systems of the United States: A working classification of U.S. terrestrial systems. NatureServe, Arlington, VA.

Introduction to Wetland and Riparian

Within the report area you have requested, wetland and riparian mapping is summarized by acres of each classification present. Summaries are only provided for modern MTNHP wetland and riparian mapping and not for outdated (NWI Legacy) or incomplete (NWI Scalable) mapping efforts; described here. MTNHP has made all three of these datasets and associated metadata available for separate download on the Montana Wetland and Riparian Framework web page.

Wetland and Riparian mapping is one of 15 Montana Spatial Data Infrastructure framework layers considered vital for making statewide maps of Montana and understanding its geography. The wetland and riparian framework layer consists of spatial data representing the extent, type, and approximate location of wetlands, riparian areas, and deep water habitats in Montana.

Wetland and riparian mapping is completed through photointerpretation of 1-m resolution color infrared aerial imagery acquired from 2005 or later. A coding convention using letters and numbers is assigned to each mapped wetland. These letters and numbers describe the broad landscape context of the wetland, its vegetation type, its water regime, and the kind of alterations that may have occurred. Ancillary data layers such as topographic maps, digital elevation models, soils data, and other aerial imagery sources are also used to improve mapping accuracy. Wetland mapping follows the federal Wetland Mapping Standard and classifies wetlands according to the Cowardin classification system of the National Wetlands Inventory (NWI) (Cowardin et al. 1979, FGDC Wetlands Subcommittee 2013). Federal, State, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands differently than the NWI. Similar coding, based on U.S. Fish and Wildlife Service conventions, is applied to riparian areas (U.S. Fish and Wildlife Service 2009). These are mapped areas where vegetation composition and growth is influenced by nearby water bodies, but where soils, plant communities, and hydrology do not display true wetland characteristics. **These data are intended for use at a scale of 1:12,000 or smaller. Mapped wetland and riparian areas do not represent precise boundaries and digital wetland data cannot substitute for an on-site determination of jurisdictional wetlands.**

See a detailed overview, with examples, of both wetland and riparian classification systems and associated codes

Literature Cited

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79/31. Washington, D.C. 103pp.

Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, D.C.

U.S. Fish and Wildlife Services. 2009. A system for mapping riparian areas in the western United States. Division of Habitat and Resource Conservation, Branch of Resource and Mapping Support, Arlington, Virginia.

Introduction to Land Management

Within the report area you have requested, land management information is summarized by acres of federal, state, and local government lands, tribal reservation boundaries, private conservation lands, and federal, state, local, and private conservation easements. Acreage for "Owned", "Tribal", or "Easement" categories represents non-overlapping areas that may be totaled. However, "Other Boundaries" represents managed areas such as National Forest boundaries containing private inholdings and other mixed ownership which may cause boundaries to overlap (e.g. a wilderness area within a forest). Therefore, acreages may not total in a straight-forward manner.

Because information on land stewardship is critical to effective land management, the Montana Natural Heritage Program (MTNHP) began compiling ownership and management data in 1997. The goal of the Montana Land Management Database is to manage a single, statewide digital data set that incorporates information from both public and private entities. The database assembles information on public lands, private conservation lands, and conservation easements held by state and federal agencies and land trusts and is updated on a regular basis. Since 2011, the Information Management group in the Montana State Library's Digital Library Division has led the Montana Land Management Database in partnership with the MTNHP.

Public and private conservation land polygons are attributed with the name of the entity that owns it. The data are derived from the statewide Montana Cadastral Parcel layer Conservation easement data shows land parcels on which a public agency or qualified land trust has placed a conservation easement in cooperation with the land owner. The dataset contains no information about ownership or status of the mineral estate. For questions about the dataset or to report errors, please contact the Montana Natural Heritage Program at (406) 444-5363 or mtnhp@mt.gov. You can download various components of the Land Management Database and view associated metadata at the Montana State Library's GIS Data List at the following links:

Public Lands
Conservation Easements
Private Conservation Lands
Managed Areas

Map features in the Montana Land Management Database or summaries provided in this report are not intended as a legal depiction of public or private surface land ownership boundaries and should not be used in place of a survey conducted by a licensed land surveyor. Similarly, map features do not imply public access to any lands. The Montana Natural Heritage Program makes no representations or warranties whatsoever with respect to the accuracy or completeness of this data and assumes no responsibility for the suitability of the data for a particular purpose. The Montana Natural Heritage Program will not be liable for any damages incurred as a result of errors displayed here. Consumers of this information should review or consult the primary data and information sources to ascertain the viability of the information for their purposes.

Introduction to Invasive and Pest Species

Within the report area you have requested, separate summaries are provided for: Aquatic Invasive Species, Noxious Weeds, Agricultural Pests, Forest Pests, and Biocontrol species that have been documented or potentially occur there based on the predicted suitability of habitat. Definitions for each of these invasive and pest species categories can be found on our Species Status Codes page.

Each of these summaries provides the following information when present for a species: (1) the number of observations of each species; (2) the geographic range polygons for each species, if developed, that the report area overlaps; (3) predicted relative habitat suitability classes that are present if a predicted suitable habitat model has been created; (4) the percent of the report area that is mapped as commonly associated or occasionally associated habitat as listed for each species in the Montana Field Guide; and (5) links to species accounts in the Montana Field Guide. Details on each of these information categories are included under relevant section headers under the Introduction to Native Species above or are defined on our Species Status Codes page. In presenting this information, the Montana Natural Heritage Program (MTNHP) is working towards assisting the user with rapidly determining what invasive and pest species have been documented and what species are potentially present in the report area. We remind users that this information is likely incomplete as surveys to document introduced species are lacking in many areas of the state, information on introduced species has only been tracked relatively recently, the MTNHP's staff and resources are limited, and information is constantly being added and updated in our databases. **Thus, field verification by professional biologists of the absence or presence of species will always be an important obligation of users of our data.**

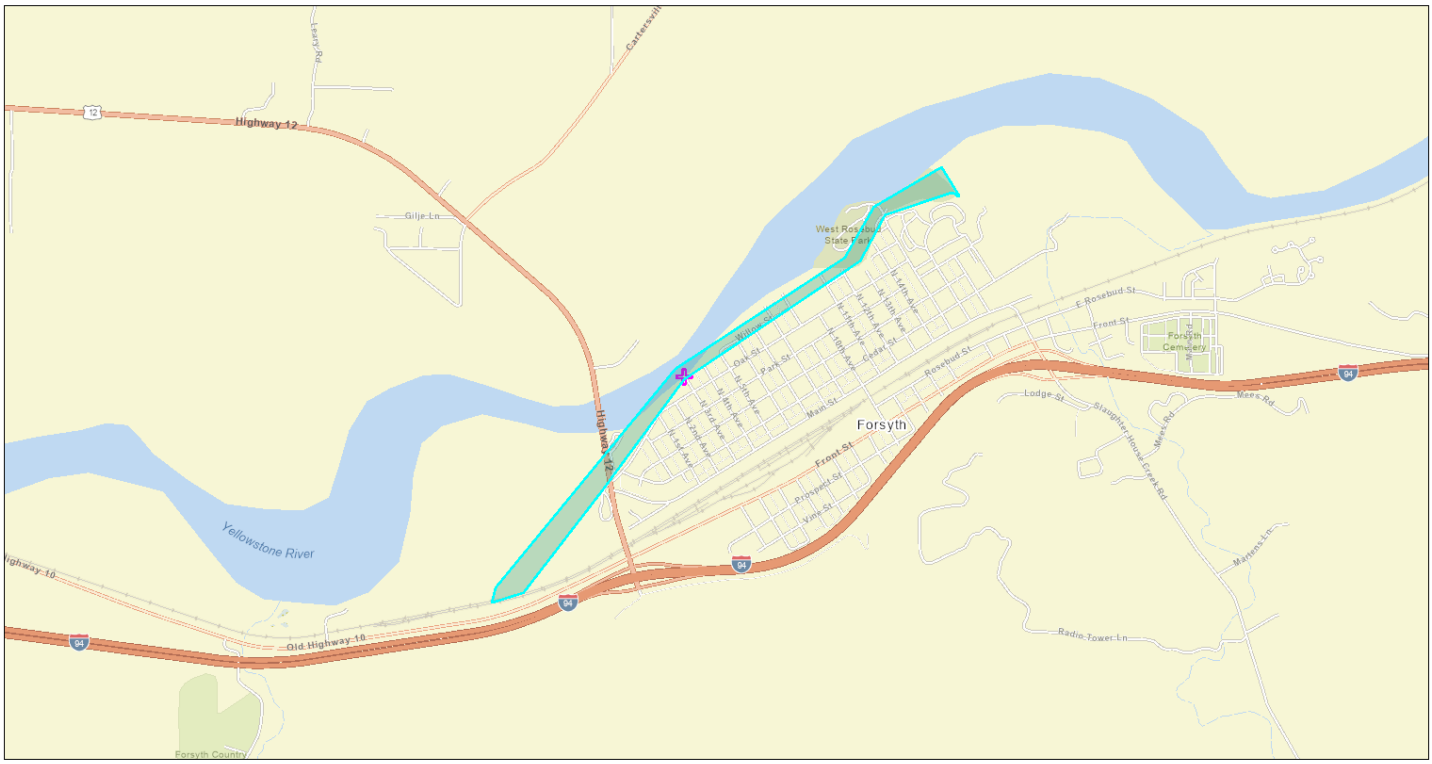
If you are aware of observation or survey datasets for invasive or pest species that the MTNHP is missing, please report them to the Program Coordinator bmaxell@mt.gov Program Botanist apipp@mt.gov or Senior Zoologist dbachen@mt.gov. If you have observations that you would like to contribute, you can submit animal observations using our online data entry system at mtnhp.org/AddObs or via Excel spreadsheets posted at mtnhp.org/observations.asp

Additional Information Resources

- MTNHP Staff Contact Information
- Montana Field Guide
- MTNHP Species of Concern Report - Animals and Plants
- MTNHP Species Status Codes - Explanation
- MTNHP Predicted Suitable Habitat Models (for select Animals and Plants)
- MTNHP Request Information page
- Montana Cadastral
- Montana Code Annotated
- Montana Fisheries Information System
- Montana Fish, Wildlife, and Parks Subdivision Recommendations
- Montana GIS Data Layers
- Montana GIS Data Bundler
- Montana Greater Sage-Grouse Project Submittal Site
- Montana Ground Water Information Center
- Montana Index of Environmental Permits, 21st Edition (2018)
- Montana Environmental Policy Act (MEPA)
- Montana Environmental Policy Act Analysis Resource List
- Laws, Treaties, Regulations, and Agreements on Animals and Plants
- Montana Spatial Data Infrastructure Layers
- Montana State Historic Preservation Office Review and Compliance
- Montana Stream Permitting: a guide for conservation district supervisors and others
- Montana Water Information System
- Montana Web Map Services
- National Environmental Policy Act
- Penalties for Misuse of Fish and Wildlife Location Data (MCA 87-6-222)
- U.S. Fish and Wildlife Service Information for Planning and Consultation (Section 7 Consultation)
- Web Soil Survey Tool

NEPAssist Report

Forsyth



April 13, 2023

Forsyth

Search Result (point)

1:27,420

0 0.23 0.45 0.9 mi

0 0.38 0.75 1.5 km

Montana State Library, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

Input Coordinates: 46.255661,-106.703580,46.256373,-106.703322,46.266847,-106.690877,46.272157,-106.679161,46.274590,-106.677144,46.276488,-106.672466,46.275094,-106.671222,46.275124,-106.671393,46.275153,-106.671436,46.275242,-106.671608,46.275242,-106.671694,46.275242,-106.671737,46.275242,-106.671908,46.274204,-106.676372,46.272009,-106.678088,46.270496,-106.681350,46.266343,-106.690276,46.261062,-106.695898,46.256136,-106.701391,46.255661,-106.703580

Project Area	0.12 sq mi
Within an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within a Federal Land?	no
Within an impaired stream?	no
Within an impaired waterbody?	no
Within a waterbody?	yes
Within a stream?	yes
Within an NWI wetland?	Available Online
Within a Brownfields site?	no
Within a Superfund site?	no

Within a Toxic Release Inventory (TRI) site?	no
Within a water discharger (NPDES)?	yes
Within a hazardous waste (RCRA) facility?	no
Within an air emission facility?	no
Within a school?	no
Within an airport?	no
Within a hospital?	no
Within a designated sole source aquifer?	no
Within a historic property on the National Register of Historic Places?	no
Within a Toxic Substances Control Act (TSCA) site?	no
Within a Land Cession Boundary?	yes
Within a tribal area (lower 48 states)?	no
Within the service area of a mitigation or conservation bank?	yes
Within the service area of an In-Lieu-Fee Program?	yes
Within a Public Property Boundary of the Formerly Used Defense Sites?	no
Within a Munitions Response Site?	no
Within an Essential Fish Habitat (EFH)?	no
Within a Habitat Area of Particular Concern (HAPC)?	no
Within an EFH Area Protected from Fishing (EFHA)?	no
Within a Bureau of Land Management Area of Critical Environmental Concern?	no
Within an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Created on: 4/13/2023 5:15:19 PM

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Rosebud County, Montana

Local office

Montana Ecological Services Field Office

(406) 449-5225
(406) 449-5339

585 Shephard Way, Suite 1

Helena, MT 59601-6287

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Lark Bunting *Calamospiza melanocorys* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15

Pinyon Jay Gymnorhinus cyanocephalus — Breeds Feb 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9420

Prairie Falcon Falco mexicanus — Breeds Mar 1 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/4736

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

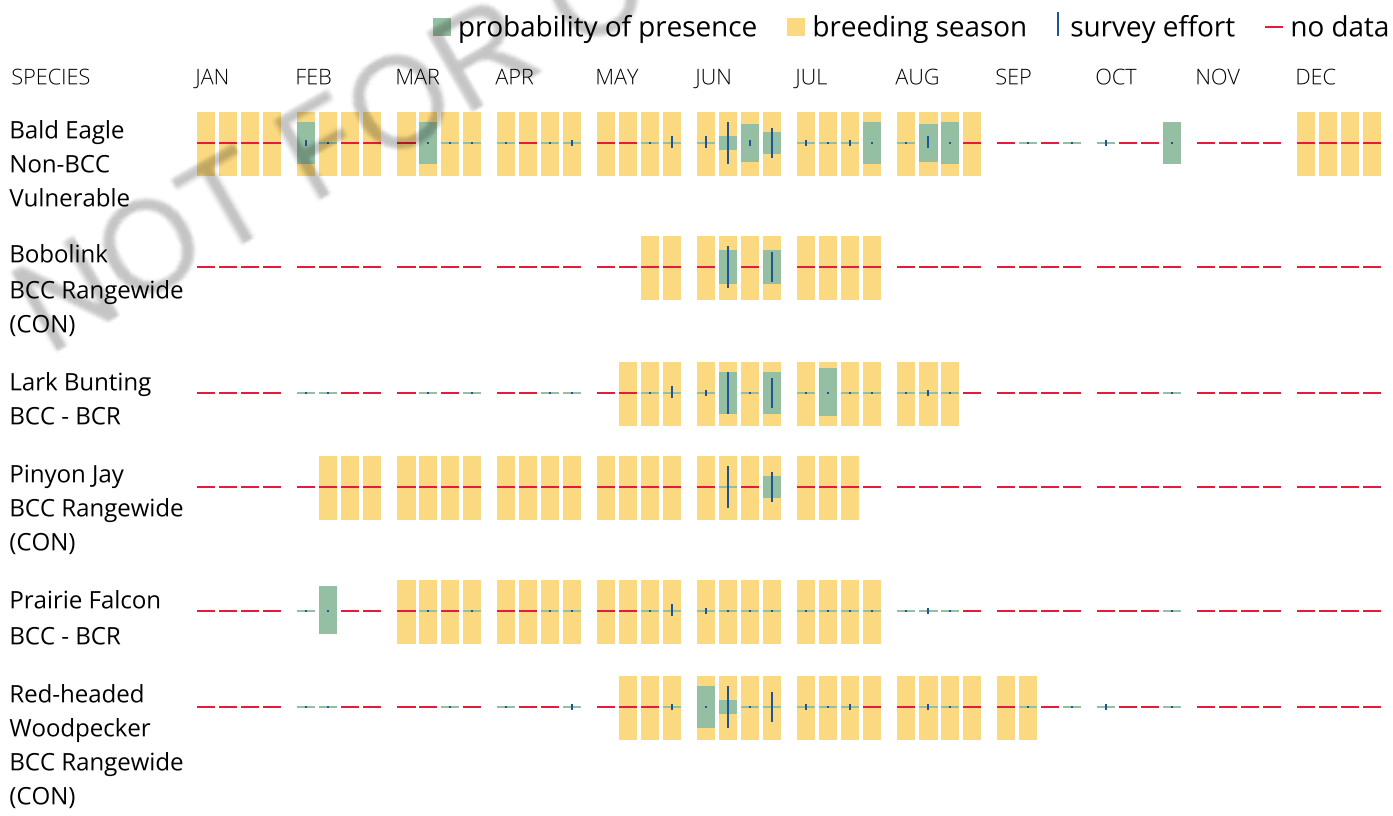
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn

more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1C

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Montana State Wildlife Action Plan (SWAP) - Aquatic Focal Areas (Watersheds)

Montana Fish, Wildlife and Parks
Private Organization

Summary

To assist in the delineation of priority aquatic habitats for the Montana SWAP.

View Full Details

Download

Details

Dataset
Feature Layer

As Needed
Info Updated: September 23, 2022

Not Planned
Data Updated: September 23, 2022

January 23, 2016
Published Date

250 Records
View data table

Public
Anyone can see this content

Custom License
View license details

I want to use this

250 records

46.266465, -106.69026

FOCALAREANAME: Yellowstone River

Search result

Y:46.266465 X:-106.690260

Zoom to

Montana State Wildlife Action Plan (SWAP) - Terrestrial Focal Areas

Montana Fish, Wildlife and Parks
Private Organization

Summary

To assist in the delineation of priority terrestrial habitats and communities for the Montana SWAP.

View Full Details

Download

Details

Dataset
Feature Layer

As Needed
Info Updated: September 23, 2022

Not Planned
Data Updated: September 23, 2022

January 16, 2018
Published Date

116 Records
View data table

Public
Anyone can see this content

Custom License
View license details

I want to use this

116 records

46.266465, -106.69026

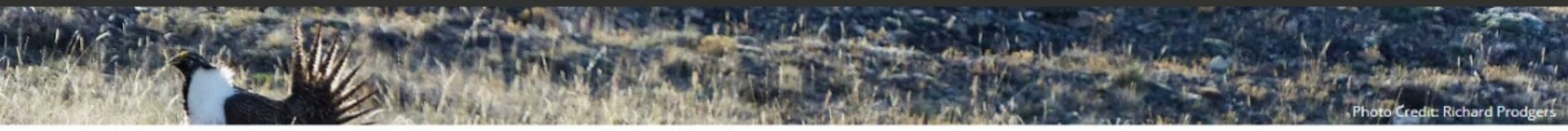
FOCALAREANAME: Ingomar

Forsyth

Montana State Wildlife Action Plan (SWAP) - Terrestrial Focal Areas

OBJECTID	126
FOCALAREANAME	Yellowstone River
TIER	1
RELATE_ID	359
REGION	7
PRIORITY	3
NUMBER_	54
WEBLINK	https://myfwp.mt.gov/getRepositoryFile?objectID=70173
Shape__Area	11,098,711,743.961
Shape__Length	2,526,649.989

Zoom to



Montana Sage Grouse Habitat Conservation Map

Use this map to view and explore types of sage grouse habitat designated as core (blue), general (green), connectivity (light-blue) habitats or BLM priority areas. To zoom into an area, hold the Shift key and draw a rectangle. Anyone proposing new development activities in sage grouse habitat must submit a development project application for consultation.

If your project is close to designated sage grouse habitat or BLM Priority area, or if you are unsure your project is within designated sage grouse habitat or BLM Priority area, please submit your project for review as permitting agencies will be checking to see if your project is located within these designated sage grouse habitats. If your permitting agency requires evidence that your project is outside of designated sage grouse habitat, we recommend that you log in and start a project application and take a screenshot of your project's location.