DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

FINAL
ENVIRONMENTAL ASSESSMENT

Project Name:	Emergency Bypass Critical Lift Station 19 Renovation
Proposed Implementation Date:	June 2024-August 2025
Proponent:	Evergreen Water and Sewer District 1
Location:	48.211703°, -114.275995°
County:	Flathead

I. TYPE AND PURPOSE OF ACTION

The purpose of this project is to protect human and environmental health by installing a system to prevent sewage overflow. The goals are to install an emergency bypass facility and renovate the existing infrastructure at the Evergreen Sewer System's Lift Station 19 (LS19). LS19, also known as the Main Lift Station, is the last lift station within the Evergreen Sewer District before all wastewater collected within the system is pumped to the City of Kalispell's Wastewater Treatment Plant. LS19 is only equipped with a single pump to move waste to the treatment plant and does not currently have an emergency bypass. These design features combined with local environmental conditions make LS19 vulnerable to sewage overflows in the event of pumping equipment failure. LS19 is located adjacent to a wetland area in a residential neighborhood with multiple domestic wells. A major failure of the current pumping system could result in significant environmental contamination and create human health hazards.

The Lift Station is also located near Snappy's Sport Senter, which has a well-known nesting tower for eagles and osprey. The Snappy's raptor tower is monitored by a webcam that supplies real-time images on the Snappy's website. The wetlands attract and support numerous raptor species, including those at the Snappy's nesting site, as well as other protected bird species, fish, and wildlife. The Station was not designed with wetlands protection in mind. Significant expansion of the wetlands has occurred since the Station was constructed, which puts the wetlands at greater risk of spills. In addition to the Station, there is other related sewer infrastructure, such as a manhole now immediately adjacent to the wetlands, that needs to be relocated to avoid risks of spills. Lift Station 19 was not designed with an emergency bypass facility. As a result, any major failure of pumping equipment or other infrastructure at the station could result in a catastrophic event where sewage overflows the wet well and floods the surrounding area. A major failure could adversely impact human health and safety by flooding neighborhoods and potentially contaminating drinking water supplies. In such an event, it is probable that sewage would spill out into the adjacent wetlands area, harming protected species and wildlife and eventually contaminating the Flathead River Drainage Basin, including Flathead Lake. The Lift Station is within the 100-year flood-plain so it is at risk for climate-related events.

Flathead County Water District 1 – Evergreen is working with Manion Engineering and IMEG to design an appropriate emergency bypass for Lift Station 19, along with other upgrades to the Evergreen Sewage System. The project proponents hope to complete the design by the end of 2023,

permit the project during the 2024 winter, put the contract out to bid in the end of April 2024 and begin construction in June of July of 2024. Construction is expected to run through August of 2025.

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 Evergreen Water and Sewer District (EWSD) hired Manion Engineering to inspect its facilities and systems in October 2019. Based on the inspection results, Manion prepared a preliminary engineering report (PER) describing the problems identified and provided recommended solutions (See Attached). The inspections and the PER included many facilities beyond just LS19, a suggested project prioritization scheme and budget estimates. Due to the amount of work required, ESWD is seeking funding from multiple sources. This EA is limited to the LS19 project as ESWD is seeking to fund that project separately from other sewer system components upgrades and repairs.

One public meeting was held at the beginning of the project (2020), and more public input will be sought as the project moves closer to implementation. DNRC will post a draft of this Environmental Assessment on the DNRC public notices webpage. The MEPA coordinator will review any public comments and will work in conjunction with the Grant Manager and project proponents and adequately respond to the 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 City of Kalispell will need to be involved in this project as the Kalispell Advanced Wastewater Treatment Plant treats the wastewater that flows through LS19.

The following construction-related permits may be required:
- 404 Permit – US Army Corps of Engineers if any wetland disturbance occurs, likely covered under Nationwide Permits 39 and 43
- 401 Certification – Montana Department of Environmental Quality
- Storm Water Discharge - Montana Department of Environmental Quality
- Dewatering Permit - Montana Department of Environmental Quality (if construction is performed during the wet season)
- SWPP Authorization - Montana Department of Environmental Quality
- Electric, Plumbing, and Building Permits – City of Kalispell
- Traffic Control Permit - City of Kalispell

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 – Build an Emergency Storage Facility
The first alternative explored was to build an overflow storage facility at LS19 that would have enough capacity for two days of sewage. The emergency storage facility would have been built on the property immediately adjacent to LS19. This alternative was abandoned due to the high cost and lack of sufficient space on the property proposed for construction.

Alternative 2 – Bypass pump installed on site at Lift Station 19 (Recommended Alternative)
The option to install a by-pass pump at LS19 would provide the highest level of protection for the environment and human health. In the event of an emergency, this pump will be completely set-up and ready to go at LS19 and will only need to be switched on. This alternative will result in the lowest risk of sewage overflow.

The cost estimate for Alternative 2 was $2,195,323 in 2020.

Alternative 3 – Portable Pump Station
The portable pump station alternative was explored and deemed viable. This would be a cost-effective solution that could be applied to other lift stations besides just LS19. This alternative was not selected because the project proponents desire to have a permanent system in place at LS19. The temporary system would take some time to set up in an emergency, which could ultimately mean that some degree of sewage overflow could occur.

Alternative 4 – No Action
The No-Action Alternative would mean that LS19 would continue to be operated in its current condition. The no action alternative would not abate any risk to human or environmental and human health.

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.*

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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.

According to the Montana Bureau of Mines and Geology the near-surface geology, the project area is underlain by alluvium, gravel, and glacial till, and lakebed deposits (MBMG GIS data hub, accessed 09/07/2023). The Natural Resource Conservation Service's Web Soil Survey mapping application defined soils where the work will occur:
- 70% alluvial land, poorly drained; and
- 30% Chamokane soils, 0 to 3 percent slopes.

Proposed Alternative – The proposed alternative will take place on previously undisturbed soils.

Potentially direct, non-reoccurring, short- to long-term adverse impacts to soil quality, stability, and moisture due to construction activities. Heavy construction equipment can compact soils, in addition to the impact from digging the new lift station bypass. Adverse impacts should be mitigated by following proper best management practices (BMPs) for erosion control.

No Action Alternative– No impact to geology and soil quality, stability and moisture.

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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.

The project area is located within the Spring Creek watershed (HUC 170102080104) on the edge of an emergent wetland that is hydrologically connected the Flathead River and Flathead Lake via Spring Creek, which flows into the Stillwater River approximately 0.4 miles downstream. The watershed is approximately 36.2 square miles. Land use within the lower portion of the watershed is urban and contains multiple MPDES sites, the middle portion is largely agricultural, and the upper portion is forested. Spring Creek is listed in good condition, and the Stillwater River is listed as impaired for aquatic life due to the loss of riparian vegetation and sedimentation.

The water table within the project area is quite shallow (18-24"), especially during the summer months. Elsewhere within the Evergreen Sewer District, the shallow water table is groundwater seepage is causing reduced storage capacity within some of the storage facilities. According to the GWIC (MBMG 2023), there are approximately a dozen domestic water wells downgradient of LS19, which could be contaminated with sewage in the event of an overflow.

Proposed Alternative – The proposed alternative will have direct beneficial impact on water quality by protecting surface water and ground water quality within the Spring Creek and Flathead River basins by reducing the risk of pump failure at LS19.

No Action Alternative – The no action alternative perpetuates the adverse impacts on water quality and quantity in the Spring Creek Watershed and Flathead River with a higher risk of surface water and ground water contamination in the event of a sewage overflow at LS19 after a pumping system failure.

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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).

Proposed Alternative – The proposed project may have a direct, localized, adverse impact to air quality from dust produced during construction. However, the impact will be short-term, minor to

negligible, non-re-occurring, and limited to the construction duration. Dust control and other BMPs will be used to limit air quality impacts. Construction is anticipated to last approximately fourteen months. The project will not have long term impact on air quality.

No Action Alternative – No impact on air quality.

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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 in an area that is dominated by human land use. The surrounding land uses include low intensity residential development (16% of the project area), Wetland and Riparian Systems (15% of the project area), developed open space (12% of the project area), developed roads (12% of the project area), Rocky Mountain Lower Montane, Foothill, and Valley Grassland (10% of the project area), developed commercial/industrial (10% of the project area), Open Water Wetland and Riparian Systems (7% of the project area), Agriculture Pasture/Hay (5% of the project area), Alpine-Montane Wet Meadow Wetland and Riparian Systems (3% of the project area), Agriculture Cultivated Crops (3% of the project area), High Intensity Residential Developed (2% of the project area), and Conifer-dominated forest and woodland (2% of the project area; MTNHP).

The Montana Natural Heritage Program (MTNHP) maps 36 potential plant species of concern and two bryophytes as occurring or potentially occurring within the project area.

Proposed Alternative – Proposed activities at LS19 should take place within the existing lift station footprint. Potentially direct, minor to moderate, short term, local adverse impacts to vegetation cover, quantity, and quality. Construction that will affect existing vegetation will be required to be revegetated after construction is complete. Efforts should be made to preserve existing vegetation during construction where applicable. BMPs should be installed and monitored per the MPDES CGP and SWPPP, and other required permits.

No Action Alternative – No impact to vegetation cover, quantity and quality.

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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.

The project area provides habitat for birds, small amounts of wildlife adapted to an urban setting, and limited habitat for aquatic life. MTNHP records indicate that there are 14 species of concern that have been observed within the project area and 87 species of concern that could potentially occur within the project area, based on their habitat preferences (Tables 1 to 3, MTNHP 2023; Attachment C). No portion of the project area falls within any terrestrial or aquatic focus areas identified by MTFWP in the State Wildlife Action Plan.

Table 1. Species Occurrences

Common Name	Scientific Name
Grizzly Bear	*Ursus arctos*
Hoary Bat	*Lasiurus cinereus*
Little Brown Myotis	*Myotis lucifugus*
Long-eared Myotis	*Myotis evotis*

Cassin's Finch	*Haemorhous cassinii*
Evening Grosbeak	*Coccothraustes vespertinus*
Great Blue Heron	*Ardea herodias*
Pileated Woodpecker	*Dryocopus pileatus*
Veery	*Catharus fuscescens*
Bull Trout	*Salvelinus confluentus*
Pygmy Whitefish	*Prosopium coulterii*
Westslope Cutthroat Trout	*Oncorhynchus clarkii lewisi*
Alberta Snowfly	*Isocapnia integra*
Hooked Snowfly	*Isocapnia crinita*

Table 2. Other Occurrences

Common Name	Scientific Name
Silver-haired Bat	*Lasionycteris noctivagans*
American White Pelican	*Pelecanus erythrorhynchos*
Bald Eagle	*Haliaeetus leucocephalus*
Barrow's Goldeneye	*Bucephala islandica*
Black Tern	*Chlidonias niger*
Bobolink	*Dolichonyx oryzivorus*
Boreal Chickadee	*Poecile hudsonicus*
Common Loon	*Gavia immer*
Hooded Merganser	*Lophodytes cucullatus*
Horned Grebe	*Podiceps auritus*
Lewis's Woodpecker	*Melanerpes lewis*
Northern Hawk Owl	*Surnia ulula*
Pacific Wren	*Troglodytes pacificus*
Rufous Hummingbird	*Selasphorus rufus*
Trumpeter Swan	*Cygnus buccinator*
Varied Thrush	*Ixoreus naevius*
Blue-eyed Darner	*Rhionaeschna multicolor*
Sinuous Snaketail	*Ophiogomphus occidentis*
Vivid Dancer	*Argia vivida*
Western Pearlshell	*Margaritifera falcata*

Table 3. Potential Species

Common Name	Scientific Name
Canada Lynx	*Lynx canadensis*
Fisher	*Pekania pennanti*
Fringed Myotis	*Myotis thysanodes*
Hoary Marmot	*Marmota caligata*
Long-legged Myotis	*Myotis volans*
North American Porcupine	*Erethizon dorsatum*
Townsend's Big-eared Bat	*Corynorhinus townsendii*
Western Pygmy Shrew	*Sorex eximius*
Yuma Myotis	*Myotis yumanensis*
American Bittern	*Botaurus lentiginosus*
Black-backed Woodpecker	*Picoides arcticus*
Caspian Tern	*Hydroprogne caspia*
Common Poorwill	*Phalaenoptilus nuttallii*
Common Tern	*Sterna hirundo*
Forster's Tern	*Sterna forsteri*

Harlequin Duck	*Histrionicus histrionicus*
Long-billed Curlew	*Numenius americanus*
Ovenbird	*Seiurus aurocapilla*
Tennessee Warbler	*Leiothlypis peregrina*
Western Screech-Owl	*Megascops kennicottii*
Yellow-billed Cuckoo	*Coccyzus americanus*
Northern Alligator Lizard	*Elgaria coerulea*
Snapping Turtle	*Chelydra serpentina*
Western Skink	*Plestiodon skiltonianus*
Northern Leopard Frog	*Lithobates pipiens*
Western Toad	*Anaxyrus boreas*
Lake Trout	*Salvelinus namaycush*
Monarch	*Danaus plexippus*
Suckley Cuckoo Bumble Bee	*Bombus suckleyi*
Arctic Sweet Coltsfoot	*Petasites frigidus var. frigidus*
Beaked Spikerush	*Eleocharis rostellata*
Blunt-leaved Pondweed	*Potamogeton obtusifolius*
Chaffweed	*Centunculus minimus*
Columbia Water-meal	*Wolffia columbiana*
Crawe's Sedge	*Carex crawei*
Crested Shieldfern	*Dryopteris cristata*
Dwarf woolly-heads	*Psilocarphus brevissimus*
Flatleaf Bladderwort	*Utricularia intermedia*
Fleshy Stitchwort	*Stellaria crassifolia*
Floriferous Monkeyflower	*Mimulus floribundus*
Geyer's Onion	*Allium geyeri var. geyeri*
Giant Helleborine	*Epipactis gigantea*
Kalm's Lobelia	*Lobelia kalmii*
Lake-bank Sedge	*Carex lacustris*
Least Moonwort	*Botrychium simplex*
Linearleaf Moonwort	*Botrychium lineare*
Long-sheath Waterweed	*Elodea bifoliata*
Northern Bog Clubmoss	*Lycopodium inundatum*
Pale-yellow Jewel-weed	*Impatiens aurella*
Panic Grass	*Dichanthelium acuminatum*
Pod Grass	*Scheuchzeria palustris*
Pointed Broom Sedge	*Carex scoparia*
Roundleaf Sundew	*Drosera rotundifolia*
Scribner's Panic Grass	*Dichanthelium oligosanthes var. scribnerianum*
Short-flowered Monkeyflower	*Mimulus breviflorus*
Slender Cottongrass	*Eriophorum gracile*
Small Yellow Lady's-slipper	*Cypripedium parviflorum*
Spalding's Catchfly	*Silene spaldingii*
Spiny-spore Quillwort	*Isoetes echinospora*
Stalk-leaved Monkeyflower	*Mimulus ampliatus*
Tufted Club-rush	*Trichophorum cespitosum*
Water Bulrush	*Schoenoplectus subterminalis*

Water Star-grass	*Heteranthera dubia*
Watershield	*Brasenia schreberi*
Western Moonwort	*Botrychium hesperium*
Scorpidium Moss	*Scorpidium scorpioides*
Meesia Moss	*Meesia triquetra*

Proposed Alternative – Potentially direct, negligible, short-term, local, non-recurring adverse impacts to terrestrial, avian, and aquatic life and habitats during construction. The primary disturbance will likely occur on private property; however, disturbance will be minimal, and contractor will be required to restore any disturbance to preexisting conditions.

No Action Alternative – No impact on terrestrial, avian, and aquatic life.

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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.

According the MTNHP, there are no unique, endangered, fragile, or limited environmental resources within the project area. The National Wetlands Inventory (NWI) website was used to determine whether any wetlands were present within the lands adjacent to the project location. This search indicated that two types of wetlands are present near the project area: freshwater emergent wetlands or freshwater pond habitats. Emergent wetlands exist primarily south of the project, but not within the proposed construction limits of the project.

Records from the MTNHP indicate there are no unique, endangered, fragile or limited environmental resources within the project area. According to the FWS, no critical habitat exists within the project area. The project does not have any identified unique natural features. According to Flathead County, the project area is located within the 500-year floodplain of the Flathead River.

As mentioned in the previous section, there are 101 species of concern listed as present or potentially present using the project area as viable habitat. DNRC also used the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) tool to generate a resource list summarizing any endangered or threatened species that are known or expected to be near the project area. The IPaC list generated six (6) Federally listed species under the Endangered Species Act as potentially occurring in the greater project area, including: Canada Lynx (*Lynx canadensis*), Grizzly Bear (*Ursus arctos horribilis*), North American Wolverine (*Gulo gulo luscus*), Yellow-billed Cuckoo (*Coccyzus americanus*), Bull Trout (*Salvelinus confluentus*), and Monarch Butterfly (*Danaus plexippus*); and sixteen (16) migratory bird species: Bald Eagle (*Haliaeetus leucocephalus*), Black Swift (*Cypseloides niger*), Black Tern (*Chlidonias niger*), Bobolink (*Dolichonyx oryzivorus*), California Gull (*Larus californicus*), Cassin's Finch (*Carpodacus cassinii*), Evening Grosbeak (*Coccothraustes vespertinus*), Franklin's Gull (*Leucophaeus pipixcan*), Golden Eagle (*Aquila chrysaetos*), Lesser Yellowlegs (*Tringa flavipes*), Lewis's Woodpecker (*Melanerpes lewis*), Long-eared Owl (*Asio otus*), Olive-sided Flycatcher (*Contopus cooperi*), Rufous Humingbird (*Selasphorus rufus*), Western Grebe (*Aechmorphorus occidentalis*) and Willet (*Tringa semipalmata*; USFWS IPaC Mapping tool, report attached). The 16 bird species are protected under the Migratory Bird Treaty Act of 1918, the eagles are protected under the Bald and Golden Eagle Protection Act of 1940, and the Bald Eagle is also protected under the Montana Bald Eagle Management Plan, and Lacey Act of 1900.

Proposed Alternative – Potentially direct, minor to moderate, short-term, local adverse impacts to unique, endangered, fragile, or limited environmental resources. Since the developed land does not provide habitat to any known species of concern, the disturbance caused by the project should not impact any sensitive environmental resources. Construction that will affect existing vegetation will be required to be revegetated after construction is complete. Efforts should be made to preserve existing vegetation where applicable. BMPs should be installed and monitored per the MPDES CGP and SWPPP, and any other required permits. Since the developed land does not provide habitat to any known species of concern, the minimal disturbance caused by the project should not impact any sensitive environmental resources.

No Action Alternative – No impact to unique, endangered, fragile, or limited environmental resources.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

There are no known historical or archaeological sites within the project area.

Proposed Alternative – No impact. However, the Farmers Canal is considered historic and examination by a cultural resource expert should be required. Regardless of the cultural resource search results, any unknown cultural or paleontological materials that are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

No Action Alternative – No impact on historical or archaeological sites.

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 will be visible to local property owners. Temporary impacts to noise from construction equipment will occur. In some cases, visual quality and aesthetics may be improved from planned activities for the project. Some noise will occur during the construction phase of the project.

Proposed Alternative – Potentially direct and indirect, negligible to minor, short-term, local, non-recurring adverse impacts to aesthetics during construction. Indirect, adverse nuisance impacts from heavy construction equipment will be temporary during the project and may include noise and exhaust fumes. Noise mitigation techniques to minimize impacts to the surrounding areas will be used by the contractor whenever possible. Construction working hours should be limited to 7 AM to 7 PM. These changes are likely of limited importance, will not set any precedent, and do not conflict with any local, state, or federal laws, requirements or formal plans. Such impacts could be easily mitigated by planting hedge rows around the project area to provide a visual screen.

No Action Alternative – No impact on 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.

The current conditions along with both the proposed alternative and no action alternative are not creating and will not create any additional demand on limited environmental resources including land, water, air, and energy.

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 proponent has provided the *Preliminary Engineering Report for Flathead County Water District-1 Evergreen, Montana* IMEG and Manion 2020), which documents existing site conditions, environmental resources present, infrastructure conditions, and recommended improvements The proponents also supplied and environmental checklist. There were no other environmental documents provided that were pertinent to the area.

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.*

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14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

The project area is largely developed and primarily located within a residential area and is adjacent to a commercial area. The contains power lines, gas lines and other potentially hazardous utilities. There are no known regulated underground storage tanks, sources of hazardous waste, potential sources of toxic waste, superfund, or brownfields sites in or around the project area.

Proposed Alternative – The proposed alternative could potentially have direct or indirect, minor to major, short- to long-term, local to regional, non-recurring to reoccurring adverse impacts to human health and safety if there is a sewage spill during construction. Engineering specifications should be carefully followed during construction to ensure that the sewer system is properly taken offline and reconnected following bypass pump installation. Proper pollution prevention BMPs, including the employment of spill kits, should also be followed during construction.

The facility is too new to contain lead-based paint but could have asbestos within the building. If asbestos is determined to be present within the facility, appropriate safety measures must be taken during all phases to abate asbestos and to protect the health and safety of workers and nearby residents.

Once completed, the project will provide direct and indirect, beneficial impacts to human health and safety by reducing the threat of domestic water contamination following a pump system failure within the sewer system.

No Action Alternative – Potential direct or indirect, minor to major, short- to long-term, local to regional, non-recurring to reoccurring adverse impacts to human health and safety may occur due to failure of the LS19 pump system.

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

Industrial, commercial, and agricultural facilities occur near to, but outside of the project area and will not be affected by this project.

Proposed Alternative & No Action Alternative – No impacts to industrial, commercial, and agriculture activities and production.

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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 within a neighborhood and adjacent to a commercial zone in the City of Kalispell. The US Census Bureau estimates that City's population was 28,450 in 2022. The median household income was $50,294 in 2019, the median income for a family was $65,506 and the per capita income was $28,206. Approximately 15.6% percent of the population lives below the poverty lines 14% receive food stamp/SNAP benefits, and 33% collect income form social security.

Proposed Alternative – The project would have direct and indirect, minor, short-term, non-reoccurring beneficial impacts to the quantity and distribution of employment within the Kalispell area. Additionally, the increase in contractors could benefit local shops, gas stations, trucking companies, suppliers, etc.

No Action Alternative – No impact on quantity and distribution of employment.

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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.

According to a search on Montana Cadastral, the median property assessment of properties immediately adjacent to the project area was $111,417 in 2022.

Proposed Alternative & No Action Alternative – No impact as the project is adding to an existing facility but not expanding the footprint. No change of tax revenues or bases is expected to occur as a result.

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

LS19 and its operation have little influence on traffic, and demand for emergency services, education, or other governmental services.

Proposed Alternative – The proposed alternative will have an indirect short-term, minor, local and regional, adverse impact on demand for government services as this project will require numerous permits and compliance inspections. Such demands are important as they allow for public knowledge of the project, and are necessary to avoid conflict with local, state, and federal laws, requirements and planning regulations.

No Action Alternative – The no action alternative would only increase demand for government services in the event of a sewage spill. In this event, major direct and indirect adverse impacts could be experienced via increased demand for government services. Depending on the severity of the overflow, these demands could be short-term or long-term, local or regional, non-recurring or recurring. If the contamination impacted several households, and/or the flathead river and Flathead Lake spill remediation would be of very high importance to society.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

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

County and City zoning ordinances, resolutions and plans are applicable to the project area. LS19 currently meets all of the local requirements and will continue to do so after the proposed project is implemented.

Proposed Alternative & No Action Alternative – No impact on locally adopted environmental plans and goals.

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 project is not located in or on a designated recreational, Wild & Scenic River, or Wilderness Area. There are parks and green spaces located near to but not within the project area.

Proposed Alternative & No Action Alternative – No impacts to recreational and wilderness activity access or quality. 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 current condition of LS19 has no effect on population density or housing.

Proposed Alternative & No Action Alternative – No impact on population density or housing.

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 lightly developed areas within Flathead County and Kalispell. The project is not anticipated to affect native or traditional lifestyles or communities and will have no bearing on population density.

Proposed Alternative & No Action Alternative – No impact or change in social structures are expected to occur as a result of the sewage bypass construction.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

The current condition of LS19 has no bearing on cultural uniqueness and diversity.

Proposed Alternative & No Action Alternative – No impact on cultural uniqueness and diversity.

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 cost of constructing an upgraded wastewater facility in the Evergreen Sewer District will likely increase sewer rates across the District.

Proposed Alternative –The proposed alternative is likely to have an indirect, minor, long-term adverse impact on sewer rates for residences within the Evergreen District. It will not impact urban growth and will provide a valuable service to the residents of the area by providing protection to water quality. It will set a beneficial precedent that water quality should be protected and will ensure that the Evergreen Sewer District stays compliant with local, state, and federal laws and requirements.

No Action Alternative – No impact to social and economic circumstances.

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 current conditions do not have an impact on drinking water, surface water, or groundwater.

Proposed Alternative – The project will provide upgrades to an existing sewer system. Replacement of this infrastructure will protect access to clean drinking water, groundwater, and surface water, by lowering the risk of a sewer system failure.

No Action Alternative – The no action alternative perpetuates the risk of a failure within the sewer system, which indirectly poses a risk to drinking water, surface water and groundwater. These risks will become greater over time as the system continues to age. In the event of a system failure, major direct and indirect adverse impacts to clean water are likely. Depending on the severity of the overflow, these impacts could be short-term or long-term, local or regional, non-recurring or recurring. If the contamination impacted several households, and/or the flathead river and Flathead Lake, spill remediation would be of very high importance to society and could create conflict with state and federal water protection laws.

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.

Proposed Alternative – Increased sewer rates will likely impact have a disproportionate impact on low-income residents of the Evergreen District in the sort-term. However, future growth and additional customers will reduce individual user rates.

No Action Alternative – No impact on Environmental Justice.

EA Prepared By:	**Name:** Samantha Treu	**Date:** 11/03/2023
	Title: MEPA/NEPA Coordinator	**Email:** samantha.treu@mt.gov

V. FINDING

27. ALTERNATIVE SELECTED:

The selected alternative is to install a bypass pump system. Even though it is more expensive and less versatile than the portable pump system, this alternative will be the most protective option for environmental and human health.

28. SIGNIFICANCE OF POTENTIAL IMPACTS:

GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE
The proposed alternative will take place on previously undisturbed soils. Potentially direct, non-reoccurring, short- to long-term adverse impacts to soil quality, stability, and moisture due to construction activities. Heavy construction equipment can compact soils, in addition to the impact from digging the new lift station bypass. Adverse impacts should be mitigated by following proper best management practices (BMPs) for erosion control.

AIR QUALITY
The proposed project may have a direct, localized, adverse impact to air quality from dust produced during construction. However, the impact will be short-term, minor to negligible, non-re-occurring, and limited to the construction duration. Dust control and other BMPs will be used to limit air quality impacts. Construction is anticipated to last approximately fourteen months. The project will not have long term impact on air quality.

VEGETATION COVER, QUANTITY AND QUALITY
Proposed activities at LS19 should take place within the existing lift station footprint. Potentially direct, minor to moderate, short term, local adverse impacts to vegetation cover, quantity, and quality. Construction that will affect existing vegetation will be required to be revegetated after construction is complete. Efforts should be made to preserve existing vegetation during construction where applicable. BMPs should be installed and monitored per the MPDES CGP and SWPPP, and other required permits.

TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS
Potentially direct, negligible, short-term, local, non-recurring adverse impacts to terrestrial, avian, and aquatic life and habitats during construction. The primary disturbance will likely occur on private property; however, disturbance will be minimal, and contractor will be required to restore any disturbance to preexisting conditions.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES
Potentially direct, minor to moderate, short-term, local adverse impacts to unique, endangered, fragile, or limited environmental resources. Since the developed land does not provide habitat to any known species of concern, the disturbance caused by the project should not impact any sensitive environmental resources. Construction that will affect existing vegetation will be required to be revegetated after construction is complete. Efforts should be made to preserve existing vegetation where applicable. BMPs should be installed and monitored per the MPDES CGP and SWPPP, and any other required permits. Since the developed land does not provide habitat to any known species of concern, the minimal disturbance caused by the project should not impact any sensitive environmental resources.

AESTHETICS
Potentially direct and indirect, negligible to minor, short-term, local, non-recurring adverse impacts to aesthetics during construction. Indirect, adverse nuisance impacts from heavy construction equipment will be temporary during the project and may include noise and exhaust fumes. Noise mitigation techniques to minimize impacts to the surrounding areas will be used by the contractor whenever possible. Construction working hours should be limited to 7 AM to 7 PM. These changes are likely of limited importance, will not set any precedent, and do not conflict with any local, state, or federal laws, requirements or formal plans. Such impacts could be easily mitigated by planting hedge rows around the project area to provide a visual screen.

HUMAN HEALTH AND SAFETY

The proposed alternative could potentially have direct or indirect, minor to major, short- to long-term, local to regional, non-recurring to reoccurring adverse impacts to human health and safety if there is a sewage spill during construction. Engineering specifications should be carefully followed during construction to ensure that the sewer system is properly taken offline and reconnected following bypass pump installation. Proper pollution prevention BMPs, including the employment of spill kits, should also be followed during construction.

DEMAND FOR GOVERNMENT SERVICES

The proposed alternative will have an indirect short-term, minor, local and regional, adverse impact on demand for government services as this project will require numerous permits and compliance inspections. Such demands are important as they allow for public knowledge of the project, and are necessary to avoid conflict with local, state, and federal laws, requirements and planning regulations.

OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

The proposed alternative is likely to have an indirect, minor, long-term adverse impact on sewer rates for residences within the Evergreen District. It will not impact urban growth and will provide a valuable service to the residents of the area by providing protection to water quality. It will set a beneficial precedent that water quality should be protected and will ensure that the Evergreen Sewer District stays compliant with local, state, and federal laws and requirements.

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29. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

No further environmental analysis required. This is the final assessment of environmental impacts.

☐ EIS   ☐ More Detailed EA   ☒ No Further Analysis

| EA Approved By:	Name:	Mark W Bostrom
	Title:	Division Administrator
Signature:	*Mark W Bostrom*	Date: 12/6/2023 | 1:59:56 PM MST

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NATURAL HERITAGE PROGRAM   mtnhp.org

1201 11th Ave ▫ P.O. Box 201800 ▫ Helena, MT 59620-1800 ▫ fax 406-444-0266 ▫ phone 406-444-3989

Latitude	Longitude
48.18156	-114.24472
48.24373	-114.30949

Summarized by:
24PRVT0064
(Custom Area of Interest)
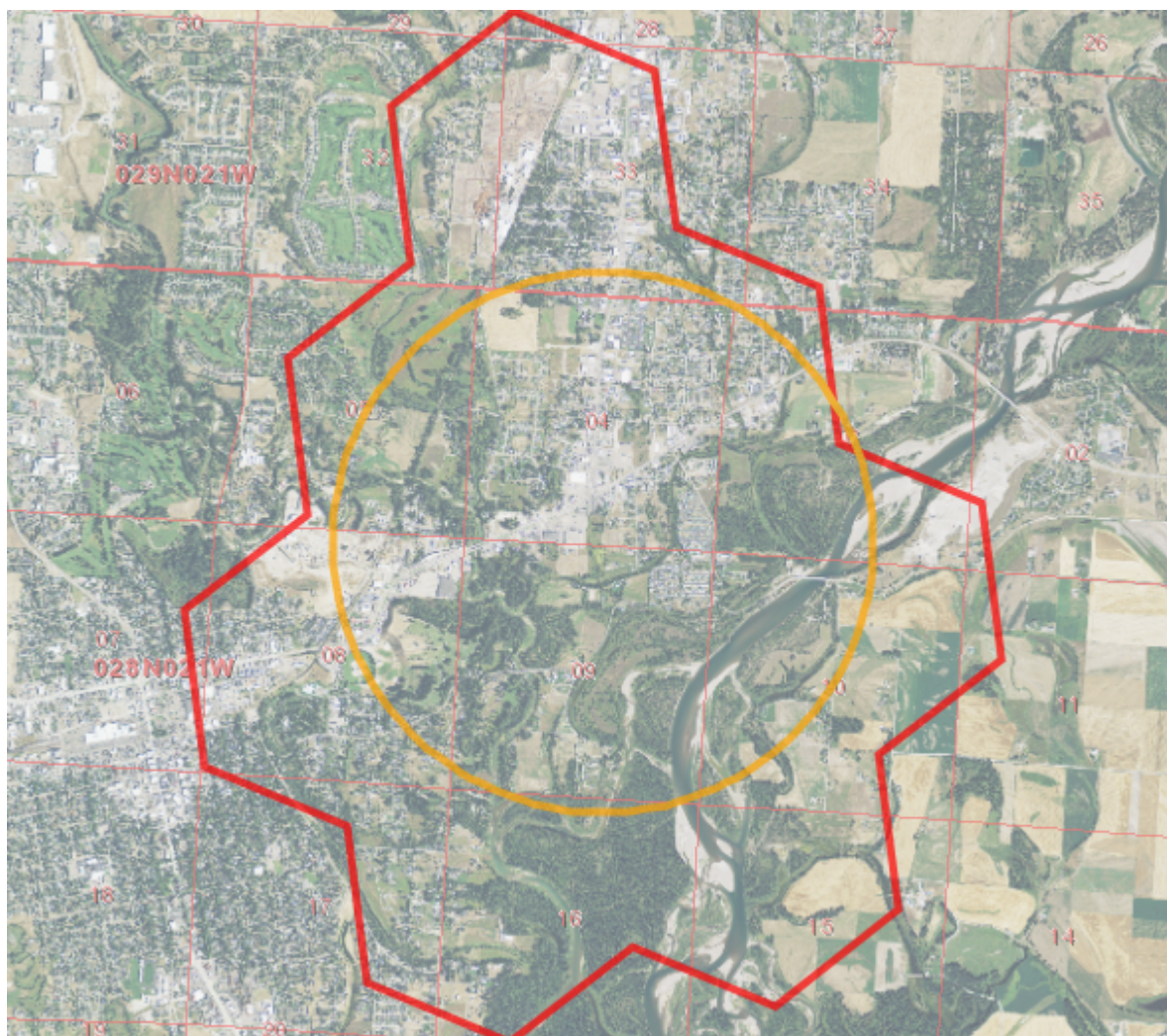
Environmental Summary

Suggested Citation

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 the NatureServe network that is composed of over 60 member programs across North America that work to provide current and comprehensive distribution and status information on species and biological communities.

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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 North America.

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.**

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Natural Resource Information System**

Model Icons		Habitat Icons		Range Icons		Num Obs	Latitude	Longitude
N	Suitable (native range)	C	Common	Y	Native / Year-round	Count of obs with 'good precision' (<=1000m)	48.18156	-114.24472
O	Optimal Suitability	O	Occasional	S	Summer		48.24373	-114.30949
M	Moderate Suitability			W	Winter	+ indicates additional 'poor precision' obs (1001m-10,000m)		
L	Low Suitability			M	Migratory			
I	Suitable (introduced range)			H	Non-native			
				H	Historical			

Native Species

Summarized by: **24PRVT0064** *(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 - Bull Trout** *(Salvelinus confluentus)* **SOC**		7	2	+	▭	Y

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

Species of Concern - Native Species   Global: **G5** State: **S2** USFWS: **LT; CH** BLM: **THREATENED** FWP SWAP: **SGCN2**

Delineation Criteria   Stream reaches and standing water bodies where the species is believed to be present based on the professional judgement of a fisheries biologist, potentially supported by habitat assessment, direct capture, or 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 87% Suitable (native range) (deductive)

			# SO	# Obs	Predicted Model	Range
⊟ **F - Westslope Cutthroat Trout** *(Oncorhynchus clarkii lewisi)* **SOC**			5	5 +	▭	Y

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

Species of Concern - Native/Non-native Species - (depends on location or taxa)   Global: **G5T4** State: **S2**

USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)**
Species of Conservation Concern in Forests (CG, HLC)   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 25, 2022)

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

			# SO	# Obs	Predicted Model	Range
⊟ **F - Pygmy Whitefish** *(Prosopium coulterii)* **SOC**			1		▭	Y

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

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

Delineation Criteria   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, 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 26, 2022)

Predicted Models: N 38% Suitable (native range) (deductive)

B - Great Blue Heron *(Ardea herodias)* SOC

| | 10 | 30 + | | | Y 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: Jun 27, 2023)

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

B - Evening Grosbeak *(Coccothraustes vespertinus)* SOC

| | 4 | 5 + | | | Y | W M |

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

Species of Concern - Native Species   Global: **G5**   State: **S3**   USFWS: **MBTA; BCC10**   FWP SWAP: **SGCN3**

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 1,000 meters in order to encompass the maximum foraging distance from nests 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: Jun 30, 2023)

Predicted Models: M 100% Moderate (inductive)

B - Pileated Woodpecker *(Dryocopus pileatus)* SOC

| | 18 | 41 | | | Y |

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

Species of Concern - Native Species   Global: **G5**   State: **S3**   USFWS: **MBTA**   FWP SWAP: **SGCN3**   PIF: **2**

Delineation Criteria   Observations with evidence of breeding activity buffered by a minimum distance of 1,500 meters in order to be conservative about encompassing home ranges and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 28, 2023)

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

M - Hoary Bat *(Lasiurus cinereus)* SOC

| | 2 | 2 | | | S | M |

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

Species of Concern - Native Species   Global: **G3G4**   State: **S3B**   BLM: **SENSITIVE**   FWP SWAP: **SGCN3**

Delineation Criteria   Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, and definitively identified roosting individuals) of adults or juveniles during the active season. Point observation location is buffered by a minimum distance of 3,500 meters in order to be conservative about encompassing the maximum reported foraging distance for the congeneric Lasiurus borealis and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jul 06, 2023)

Predicted Models: M 63% Moderate (inductive), L 37% Low (inductive)

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

| | 2 | 1 | | | Y |

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

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

Delineation Criteria   Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, and definitively identified roosting individuals) of adults or juveniles. Point observation location is buffered by a minimum distance of 1,000 meters in order to encompass the average distances traveled from capture locations to roosts and between roosts in western Montana, Alberta, and Oregon and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. When cave locations are involved, point observations are mapped in the center of a one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations (U.S. Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance of 1,000 meters and otherwise by the locational uncertainty associated with the observation 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: Mar 22, 2023)

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

B - Veery *(Catharus fuscescens)* SOC

| | 2 | 2 | | | S | M |

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**

Delineation Criteria   Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to be conservative about encompassing home ranges and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 29, 2023)

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

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

| | 2 | 2 | | | Y |

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

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

Delineation Criteria   Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, or definitively identified roosting individuals) of adults or juveniles. Point observation location is buffered by a distance of 1,600 meters in order to encompass the greater than 1,500 meters foraging distance reported for the species in New Brunswick, Canada and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. When cave locations are involved, point observations are mapped in the center of a one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations (U.S. Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance of 1,600 meters and otherwise by the locational uncertainty associated with the observation 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: Jul 06, 2023)

Predicted Models: M 37% Moderate (inductive), L 25% Low (inductive)

B - Cassin's Finch *(Haemorhous cassinii)* SOC

| | 3 | 3 | | | Y |

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

Species of Concern - Native Species   Global: **G5**   State: **S3**   USFWS: **MBTA; BCC10**   FWP SWAP: **SGCN3**   PIF: **3**

Delineation Criteria   Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to be conservative about encompassing the courtship and foraging distance from nesting areas and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 30, 2023)

Predicted Models: L 87% Low (inductive)

M - Grizzly Bear *(Ursus arctos)* SOC

| | 7 | 1 | + | | Y | H |

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

Species of Concern - Native Species   Global: **G4**   State: **S2S3**   USFWS: **LT**   BLM: **THREATENED**   FWP SWAP: **SGCN2-3**

Delineation Criteria   Species Occurrence polygons represent areas delineated by the U.S. Fish and Wildlife Service (USFWS) that encompass both home ranges and potential transitory movements based on verified sightings. Within these areas, the USFWS wants project proponents to consider whether the species "may be present" when evaluating the potential impacts of a project and to work with the USFWS to develop and implement best management practices to minimize or eliminate project effects on the species. (Last Updated: Jul 06, 2023)

Predicted Models: L 37% Low (inductive)

I - Isocapnia crinita *(Hooked Snowfly)* SOC

| | 1 | + | Not Assessed | Y |

View in Field Guide   **View Range Maps**

Species of Concern - Native Species   Global: **G5**   State: **S2**

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 100 meters in order to encompass the home range of the individual 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: Mar 22, 2016)

I - Isocapnia integra *(Alberta Snowfly)* SOC

| | 1 | + | Not Assessed | Y |

View in Field Guide   **View Range Maps**

Species of Concern - Native Species   Global: **G4G5**   State: **S2**

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 100 meters in order to encompass the home range of the individual 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: Mar 22, 2016)

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

View in Field Guide

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)

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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
	48.18156	-114.24472
	48.24373	-114.30949

Native Species

Summarized by: **24PRVT0064** *(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

B - Barrow's Goldeneye *(Bucephala islandica)* **PSOC** — 2 + — Y **W** M
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G5**   State: **S4**   USFWS: **MBTA**   FWP SWAP: **SGIN**   PIF: **2**
Predicted Models: **O** 75% Optimal (inductive), **M** 25% Moderate (inductive)

B - Hooded Merganser *(Lophodytes cucullatus)* **PSOC** — 23 — Y   M
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G5**   State: **S4**   USFWS: **MBTA**   FWP SWAP: **SGIN**   PIF: **2**
Predicted Models: **O** 63% Optimal (inductive), **M** 37% Moderate (inductive)

B - Bald Eagle *(Haliaeetus leucocephalus)* **SSS** — 53 — 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**
Predicted Models: **O** 50% Optimal (inductive), **M** 25% Moderate (inductive), **L** 25% Low (inductive)

B - Black Tern *(Chlidonias niger)* **SOC** — 1 + — S M
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: **O** 50% Optimal (inductive), **M** 13% Moderate (inductive), **L** 13% Low (inductive)

B - Rufous Hummingbird *(Selasphorus rufus)* **PSOC** — 4 — S M
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G4**   State: **S4B**   USFWS: **MBTA; BCC10**   PIF: **3**
Predicted Models: **M** 100% Moderate (inductive)

B - Trumpeter Swan *(Cygnus buccinator)* **SOC** — 2 — Y M
View in Field Guide   View Predicted Models   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**
Predicted Models: **M** 50% Moderate (inductive), **L** 50% Low (inductive)

B - Lewis's Woodpecker *(Melanerpes lewis)* **SOC** — 1 — S M
View in Field Guide   View Predicted Models   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**
Predicted Models: **M** 50% Moderate (inductive), **L** 50% Low (inductive)

B - Horned Grebe *(Podiceps auritus)* **SOC** — 2 + — S M
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** 25% Moderate (inductive), **L** 25% Low (inductive)

M - Silver-haired Bat *(Lasionycteris noctivagans)* **PSOC** — 2 — Y
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G3G4**   State: **S4**
Predicted Models: **M** 12% Moderate (inductive), **L** 75% Low (inductive)

B - American White Pelican *(Pelecanus erythrorhynchos)* **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**   FWP SWAP: **SGCN3**   PIF: **3**
Predicted Models: **L** 100% Low (inductive)

B - Common Loon *(Gavia immer)* **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**   USFS: **Sensitive - Known in Forests (KOOT, LOLO)**   FWP SWAP: **SGCN3**   PIF: **1**
Predicted Models: **L** 75% 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**
Predicted Models: **L** 25% Low (inductive)

B - Boreal Chickadee *(Poecile hudsonicus)* **SOC** — 1 — Not Assessed — Y
View in Field Guide   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S3**   USFWS: **MBTA**   FWP SWAP: **SGCN3**

B - Pacific Wren *(Troglodytes pacificus)* SOC

2 + Not Assessed Y

Species of Concern - Native Species Global: **G5** State: **S3** USFWS: **MBTA** FWP SWAP: **SGCN3** PIF: **2**

I - Argia vivida *(Vivid Dancer)* PSOC

1 Not Assessed Y

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

I - Margaritifera falcata *(Western Pearlshell)* SOC

1 Not Assessed Y

View in Field Guide **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S2** USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)** BLM: **SENSITIVE** FWP SWAP: **SGCN2**
Species of Conservation Concern in Forests (CG, HLC)

I - Ophiogomphus occidentis *(Sinuous Snaketail)* PSOC

1 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

1 Not Assessed Y

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

B - Varied Thrush *(Ixoreus naevius)* SOC

3 + Not Assessed S 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 - Northern Hawk Owl *(Surnia ulula)* SOC

1 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, SGIN**

MONTANA STATE LIBRARY
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
	48.18156	-114.24472
	48.24373	-114.30949

Native Species

Summarized by: 24PRVT0064 *(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

V - Carex scoparia *(Pointed Broom Sedge)* **SOC**
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5** State: **S1S2** Plant Threat Score: **No Known Threats**
Predicted Models: O 75% Optimal (inductive), M 25% Moderate (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: O 75% Optimal (inductive), M 25% Moderate (inductive)

V - Wolffia columbiana *(Columbia Water-meal)* **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 75% Optimal (inductive), M 25% Moderate (inductive)

B - Western Screech-Owl *(Megascops kennicottii)* **PSOC**
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G4G5** State: **S3S4** USFWS: **MBTA** FWP SWAP: **SGIN** PIF: **3**
Predicted Models: O 50% Optimal (inductive), M 50% Moderate (inductive)

V - Dichanthelium oligosanthes var. scribnerianum *(Scribner's Panic Grass)* **SOC**
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5T5** State: **S1S2** Plant Threat Score: **Low**
Predicted Models: O 50% Optimal (inductive), M 37% Moderate (inductive), L 12% Low (inductive)

V - Allium geyeri var. geyeri *(Geyer's Onion)* **SOC**
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G4G5T4** State: **S3** Plant Threat Score: **No Known Threats** CCVI: **Extremely Vulnerable**
Predicted Models: O 25% Optimal (inductive), M 75% Moderate (inductive)

V - Drosera rotundifolia *(Roundleaf Sundew)* **PSOC**
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G5** State: **S3S4** Plant Threat Score: **Unknown**
Predicted Models: O 25% Optimal (inductive), M 38% Moderate (inductive)

V - Impatiens aurella *(Pale-yellow Jewel-weed)* **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**
Predicted Models: O 12% Optimal (inductive), M 88% Moderate (inductive)

V - Schoenoplectus subterminalis *(Water Bulrush)* **SOC**
View in Field Guide   View Predicted Models   View Range Maps
USFS: **Sensitive - Known in Forests (KOOT, LOLO)**
Species of Concern - Native Species   Global: **G5** State: **S3** **Species of Conservation Concern in Forests (HLC)** Plant Threat Score: **Unknown**
Predicted Models: O 12% Optimal (inductive), M 38% Moderate (inductive), L 50% Low (inductive)

V - Epipactis gigantea *(Giant Helleborine)* **SOC**
View in Field Guide   View Predicted Models   View Range Maps
USFS: **Sensitive - Known in Forests (BD, LOLO)**
Sensitive - Suspected in Forests (BRT, KOOT)
Species of Concern - Native Species   Global: **G4** State: **S2S3** **Species of Conservation Concern in Forests (FLAT, HLC)** Plant Threat Score: **Low**
CCVI: **Moderately Vulnerable**
Predicted Models: O 12% Optimal (inductive), M 25% Moderate (inductive), L 50% Low (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)

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 100% Moderate (inductive)

V - Dichanthelium acuminatum *(Panic Grass)* SOC

View in Field Guide   View Predicted Models   View Range Maps

Species of Concern - Native Species   Global: **G5**   State: **S2S3**   Plant Threat Score: **Unknown**

Predicted Models: **M** 100% Moderate (inductive)

V - Mimulus breviflorus *(Short-flowered Monkeyflower)* SOC

View in Field Guide   View Predicted Models   View Range Maps

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

Species of Concern - Native Species   Global: **G4**   State: **S1S2**   **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **Unknown**
CCVI: **Moderately Vulnerable**

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)

V - Utricularia intermedia *(Flatleaf Bladderwort)* SOC

View in Field Guide   View Predicted Models   View Range Maps

Species of Concern - Native Species   Global: **G5**   State: **S2**   USFS: **Sensitive - Known in Forests (KOOT)**   Plant Threat Score: **No Known Threats**

Predicted Models: **M** 100% Moderate (inductive)

B - Yellow-billed Cuckoo *(Coccyzus americanus)* SOC   [7]   S M

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: **M** 100% Moderate (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: **M** 75% Moderate (inductive), **L** 25% Low (inductive)

M - Hoary Marmot *(Marmota caligata)* 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** 75% Moderate (inductive), **L** 12% 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: **M** 63% Moderate (inductive), **L** 37% Low (inductive)

V - Eleocharis rostellata *(Beaked Spikerush)* SOC

View in Field Guide   View Predicted Models   View Range Maps

Species of Concern - Native Species   Global: **G5**   State: **S3**   USFS: **Species of Conservation Concern in Forests (CG, FLAT, HLC)**   Plant Threat Score: **Unknown**
CCVI: **Less Vulnerable**

Predicted Models: **M** 63% Moderate (inductive), **L** 13% 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: **M** 50% Moderate (inductive), **L** 50% Low (inductive)

B - Meesia triquetra *(Meesia Moss)* SOC

View in Field Guide   View Predicted Models   View Range Maps

USFS: **Sensitive - Known in Forests (BRT, KOOT)**
Sensitive - Suspected in Forests (LOLO)
Species of Concern - Native Species   Global: **G5**   State: **S2**   **Species of Conservation Concern in Forests (CG, FLAT)**

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

V - Mimulus floribundus *(Floriferous Monkeyflower)* SOC

View in Field Guide   View Predicted Models   View Range Maps

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

Predicted Models: **M** 50% Moderate (inductive), **L** 38% 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: **M** 50% Moderate (inductive), **L** 13% Low (inductive)

V - Mimulus ampliatus *(Stalk-leaved Monkeyflower)* SOC

View in Field Guide   View Predicted Models   View Range Maps

Species of Concern - Native Species   Global: **G3**   State: **S3**   USFS: **Sensitive - Known in Forests (KOOT)**   Plant Threat Score: **No Known Threats**
CCVI: **Highly Vulnerable**

Predicted Models: **M** 50% Moderate (inductive), **L** 13% Low (inductive)

V - Potamogeton obtusifolius *(Blunt-leaved Pondweed)* SOC

View in Field Guide   View Predicted Models   View Range Maps

USFS: **Sensitive - Suspected in Forests (LOLO)**

Species of Concern - Native Species   Global: **G5**   State: **S3**   **Species of Conservation Concern in Forests (HLC)**   Plant Threat Score: **Low**

Predicted Models: **M** 50% Moderate (inductive), **L** 13% Low (inductive)

V - Petasites frigidus var. frigidus *(Arctic Sweet Coltsfoot)* SOC

View in Field Guide   View Predicted Models   View Range Maps

Species of Concern - Native Species   Global: **G5T5**   State: **S2**   USFS: **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **Medium**
CCVI: **Moderately Vulnerable**

Predicted Models: **M** 38% Moderate (inductive), **L** 25% Low (inductive)

V - Botrychium simplex *(Least Moonwort)* **SOC**

Species of Concern - Native Species   Global: **G5**   State: **S2**   CCVI: **Less Vulnerable**

Predicted Models: **M** 37% Moderate (inductive), **L** 13% Low (inductive)

V - Dryopteris cristata *(Crested Shieldfern)* **SOC**

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

USFS: **Sensitive - Known in Forests (BRT, KOOT, LOLO)**

Species of Concern - Native Species   Global: **G5**   State: **S3**   **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **Low**

CCVI: **Moderately Vulnerable**

Predicted Models: **M** 37% Moderate (inductive)

A - Western Toad *(Anaxyrus boreas)* **SOC**

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

Species of Concern - Native Species   Global: **G4**   State: **S2**   USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)**   BLM: **SENSITIVE**   FWP SWAP: **SGCN2**

Predicted Models: **M** 25% Moderate (inductive), **L** 75% 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: **M** 13% Moderate (inductive), **L** 87% Low (inductive)

R - Western Skink *(Plestiodon skiltonianus)* **SOC**

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

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

Predicted Models: **M** 12% Moderate (inductive), **L** 75% Low (inductive)

V - Heteranthera dubia *(Water Star-grass)* **SOC**

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

Species of Concern - Native Species   Global: **G5**   State: **S1S2**   Plant Threat Score: **Unknown**

Predicted Models: **M** 12% Moderate (inductive), **L** 75% Low (inductive)

V - Botrychium hesperium *(Western Moonwort)* **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, KOOT)**   CCVI: **Less Vulnerable**

Predicted Models: **M** 12% Moderate (inductive), **L** 63% Low (inductive)

V - Botrychium lineare *(Linearleaf Moonwort)* **SOC**

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

Species of Concern - Native Species   Global: **G3**   State: **S1S2**   CCVI: **Less Vulnerable**

Predicted Models: **M** 12% Moderate (inductive), **L** 63% Low (inductive)

V - Isoetes echinospora *(Spiny-spore Quillwort)* **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**   CCVI: **Less Vulnerable**

Predicted Models: **M** 12% Moderate (inductive), **L** 63% Low (inductive)

V - Lobelia kalmii *(Kalm's Lobelia)* **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** 12% Moderate (inductive), **L** 38% Low (inductive)

V - Trichophorum cespitosum *(Tufted Club-rush)* **SOC**

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

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

Species of Concern - Native Species   Global: **G5**   State: **S2**   **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **No Known Threats**

CCVI: **Moderately Vulnerable**

Predicted Models: **M** 12% Moderate (inductive), **L** 38% Low (inductive)

B - Forster's Tern *(Sterna forsteri)* **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** 12% Moderate (inductive), **L** 38% Low (inductive)

B - Harlequin Duck *(Histrionicus histrionicus)* **SOC**

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

Species of Concern - Native Species   Global: **G4**   State: **S2B**   USFWS: **MBTA**   USFS: **Sensitive - Known in Forests (BD, KOOT, LOLO)**   FWP SWAP: **SGCN2**   PIF: **1**

Predicted Models: **M** 12% Moderate (inductive), **L** 38% 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: **M** 12% Moderate (inductive), **L** 25% 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** 12% Moderate (inductive)

M - Canada Lynx *(Lynx canadensis)* **SOC**

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

Species of Concern - Native Species   Global: **G5**   State: **S3**   USFWS: **LT; CH**   BLM: **THREATENED**   FWP SWAP: **SGCN3**

Predicted Models: **L** 100% Low (inductive)

R - Northern Alligator Lizard *(Elgaria coerulea)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S3**   FWP SWAP: **SGCN3, SGIN**
Predicted Models: **L** 100% Low (inductive)

V - Stellaria crassifolia *(Fleshy Stitchwort)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S2**   Plant Threat Score: **No Known Threats**
Predicted Models: **L** 100% Low (inductive)

B - Caspian Tern *(Hydroprogne caspia)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S2B**   USFWS: **MBTA**   BLM: **SENSITIVE**   FWP SWAP: **SGCN2**   PIF: **2**
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)

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: **L** 100% Low (inductive)

I - Danaus plexippus *(Monarch)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G4**   State: **S2S3**   USFWS: **C**
Predicted Models: **L** 100% Low (inductive)

R - Snapping Turtle *(Chelydra serpentina)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native/Non-native Species - (depends on location or taxa)   Global: **G5**   State: **S3**   BLM: **SENSITIVE**   FWP SWAP: **SGCN3, SGIN**
Predicted Models: **L** 100% Low (inductive)

B - Tennessee Warbler *(Leiothlypis peregrina)* PSOC
View in Field Guide   View Predicted Models   View Range Maps
Potential Species of Concern - Native Species   Global: **G5**   State: **S3S4B**   USFWS: **MBTA**
Predicted Models: **L** 75% Low (inductive)

M - Fisher *(Pekania pennanti)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S3**   USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)**   BLM: **SENSITIVE**   FWP SWAP: **SGCN3**
Predicted Models: **L** 63% Low (inductive)

A - Northern Leopard Frog *(Lithobates pipiens)* SOC
View in Field Guide   View Predicted Models   View Range Maps
USFS: **Sensitive - Known in Forests (KOOT)**
Species of Concern - Native Species   Global: **G5**   State: **S1,S4**   **Sensitive - Suspected in Forests (BRT, LOLO)**   BLM: **SENSITIVE**   FWP SWAP: **SGCN1**
Predicted Models: **L** 63% Low (inductive)

V - Brasenia schreberi *(Watershield)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S1S2**   USFS: **Sensitive - Known in Forests (KOOT, LOLO)**   Plant Threat Score: **Unknown**   CCVI: **Less Vulnerable**
Predicted Models: **L** 63% Low (inductive)

V - Carex lacustris *(Lake-bank Sedge)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S1S2**   USFS: **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **Low**
CCVI: **Moderately Vulnerable**
Predicted Models: **L** 63% Low (inductive)

V - Centunculus minimus *(Chaffweed)* SOC
View in Field Guide   View Predicted Models   View Range Maps
Species of Concern - Native Species   Global: **G5**   State: **S2**   Plant Threat Score: **No Known Threats**
Predicted Models: **L** 63% Low (inductive)

V - Scheuchzeria palustris *(Pod Grass)* SOC
View in Field Guide   View Predicted Models   View Range Maps
USFS: **Sensitive - Known in Forests (BD, KOOT, LOLO)**
Species of Concern - Native Species   Global: **G5**   State: **S3**   **Sensitive - Suspected in Forests (BRT)**   Plant Threat Score: **Medium - Low**
CCVI: **Moderately Vulnerable**
Predicted Models: **L** 63% Low (inductive)

V - Eriophorum gracile *(Slender Cottongrass)* SOC
View in Field Guide   View Predicted Models   View Range Maps
USFS: **Sensitive - Known in Forests (KOOT)**
Species of Concern - Native Species   Global: **G5**   State: **S3**   **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **Unknown**
CCVI: **Moderately Vulnerable**
Predicted Models: **L** 50% Low (inductive)

V - Lycopodium inundatum *(Northern Bog Clubmoss)* SOC
View in Field Guide   View Predicted Models   View Range Maps
USFS: **Sensitive - Suspected in Forests (KOOT)**
Species of Concern - Native Species   Global: **G5**   State: **S2**   **Species of Conservation Concern in Forests (FLAT)**   Plant Threat Score: **Unknown**   CCVI: **Highly Vulnerable**
Predicted Models: **L** 50% Low (inductive)

B - Scorpidium scorpioides *(A Scorpidium Moss)* SOC

View in Field Guide   View Predicted Models   View Range Maps

USFS: **Sensitive - Known in Forests (KOOT, LOLO)**

Species of Concern - Native Species   Global: **G5**   State: **S2**   **Species of Conservation Concern in Forests (FLAT, HLC)**

Predicted Models: L 50% Low (inductive)

B - Common Tern *(Sterna hirundo)* 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: L 50% Low (inductive)

M - Yuma Myotis *(Myotis yumanensis)* SOC

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

Species of Concern - Native Species   Global: **G5**   State: **S3**   FWP SWAP: **SGIN**

Predicted Models: L 37% Low (inductive)

M - Western Pygmy Shrew *(Sorex eximius)* 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: L 25% Low (inductive)

B - Black-backed Woodpecker *(Picoides arcticus)* SOC

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

Species of Concern - Native Species   Global: **G5**   State: **S3**   USFWS: **MBTA**   USFS: **Sensitive - Known in Forests (BD, BRT, KOOT, LOLO)**   BLM: **SENSITIVE**

FWP SWAP: **SGCN3**   PIF: **1**

Predicted Models: L 25% Low (inductive)

F - Lake Trout *(Salvelinus namaycush)* SOC

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

Species of Concern - Native/Non-native Species - (depends on location or taxa)   Global: **G5**   State: **S2**   FWP SWAP: **SGCN2**

Predicted Models: ! 75% Suitable (introduced range) (deductive)

V - Silene spaldingii *(Spalding's Catchfly)* SOC

View in Field Guide   **View Range Maps**

Species of Concern - Native Species   Global: **G2**   State: **S2**   USFWS: **LT**   Plant Threat Score: **Very High**   CCVI: **Extremely Vulnerable**

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	48.24373	-114.30949

Structured Surveys

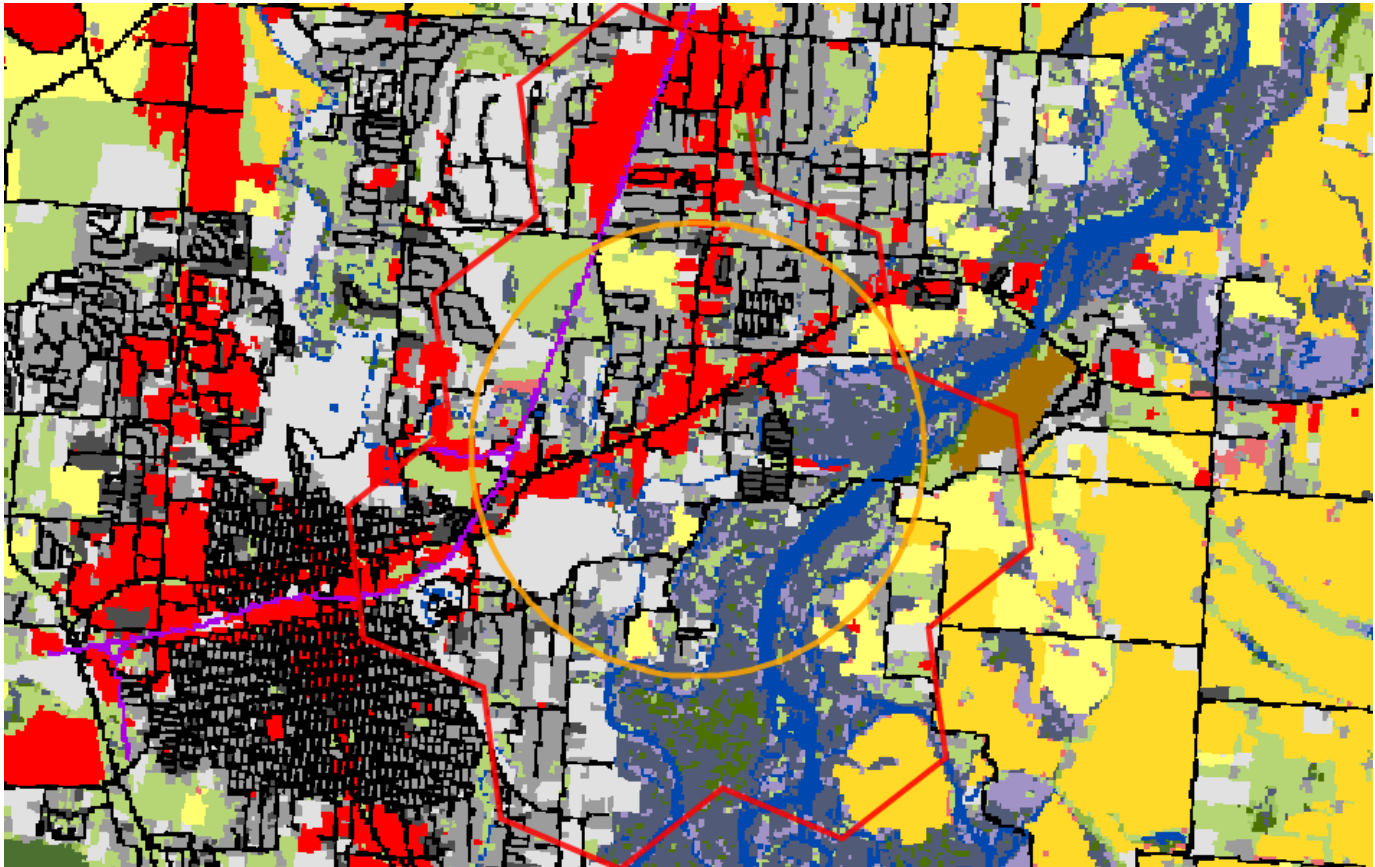## Summarized by: **24PRVT0064** *(Custom Area of Interest)*

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.

	Survey Count	Obs Count	Recent Survey
B-Bald Eagle Nest *(Bald Eagle Nest Survey)*	7	7	2011
B-Great Blue Heron Rookery *(Great Blue Heron Rookery)*	1		2020
E-Eastern Heath Snail *(Eastern Heath Snail Survey)*	1		2012
E-Eurasian Water-milfoil Rake *(Rake tows/pulls for Eurasian Water-milfoil)*	1	5	2015
E-Invasive Mussel Plankton Tow *(Plankton tows for veligers of Invasive Mussels)*	3		2020
E-Kicknet *(Kicknet Collection Survey for Invasive Mussels and Snails)*	7	1	2022
E-Noxious Weed, Road-based *(Noxious Weed Road-based Visual Surveys)*	14	112	2003
E-Noxious Weed, Visual *(Noxious Weed Visual Surveys)*	4	38	2008
E-Visual Aquatic Invasives *(Visual Encounter Surveys for Aquatic Invasives on Shorelines or Underwater)*	10		2022
F-Fish Trapping/Netting *(Fish Trapping or Netting Surveys)*	2	5	2022
I-Mosquito Traps *(Montana Mosquito Surveillance Project)*	105	580	2017
I-Odonates/Butterfly VES *(Visual Encounter Survey for Damselfly/Dragonfly/Butterfly)*	1	1	1963
M-Bat Acoustic *(Bat Acoustic Survey)*	3	9	2010
P-Algal scraping *(Algal Scraping)*	7	387	2012

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Land Cover

Summarized by: **24PRVT0064** *(Custom Area of Interest)*

Human Land Use
Developed
🟫 **Low Intensity Residential**

16% (*796 Acres*) 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.

Wetland and Riparian Systems
Floodplain and Riparian
🟦 **Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland**

15% (*788 Acres*) This ecological system is found throughout the Rocky Mountain and Colorado Plateau regions. In Montana, sites occur at elevations of 609-1,219 meters (2,000-4,000 feet) west of the Continental Divide. East of the Continental Divide, this system ranges up to 1,676 meters (5,500 feet). It generally comprises a mosaic of multiple communities that are tree-dominated with a diverse shrub component. It is dependent on a natural hydrologic regime with annual to episodic flooding, so it is usually found within the flood zone of rivers, on islands, sand or cobble bars, and along streambanks. It can form large, wide occurrences on mid-channel islands in larger rivers, or narrow bands on small, rocky canyon tributaries and well-drained benches. It is also typically found in backwater channels and other perennially wet but less scoured sites, such as floodplains, swales and irrigation ditches. In some locations, occurrences extend into moderately high intermountain basins where the adjacent vegetation is sage steppe. Black cottonwood (*Populus balsamifera* ssp. *trichocarpa*) is the key indicator species. Other dominant trees may include boxelder maple (*Acer negundo*), narrowleaf cottonwood (*Populus angustifolia*), eastern cottonwood (*Populus deltoides*), Douglas-fir (*Pseudotsuga menziesii*), peachleaf willow (*Salix amygdaloides*), or Rocky Mountain juniper (*Juniperus scopulorum*). Dominant shrubs include Rocky Mountain maple (*Acer glabrum*), thinleaf alder (*Alnus incana*), river birch (*Betula occidentalis*), redoiser dogwood (*Cornus sericea*), hawthorne (*Crataegus* species), chokecherry (*Prunus virginiana*), skunkbush sumac (*Rhus trilobata*), willows (*Salix* species), rose (*Rosa* species), silver buffaloberry (*Shepherdia argentea*), or snowberry (*Symphoricarpos* species).

Human Land Use
Developed
⬜ **Developed, Open Space**

12% (*632 Acres*) 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.
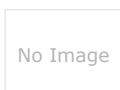
Human Land Use
Developed
⬛ **Other Roads**

12% (*606 Acres*) County, city and or rural roads generally open to motor vehicles.

Grassland Systems
Montane Grassland

10% (520 Acres)

Rocky Mountain Lower Montane, Foothill, and Valley Grassland

This grassland system of the northern Rocky Mountains is found at lower montane to foothill elevations in mountains and valleys throughout Montana. These grasslands are floristically similar to Big Sagebrush Steppe but are defined by shorter summers, colder winters, and young soils derived from recent glacial and alluvial material. They are found at elevations from 548 - 1,650 meters (1,800-5,413 feet). In the lower montane zone, they range from small meadows to large open parks surrounded by conifers; below the lower treeline, they occur as extensive foothill and valley grasslands. Soils are relatively deep, fine-textured, often with coarse fragments, and non-saline. Microphytic crust may be present in high-quality occurrences. This system is typified by cool-season perennial bunch grasses and forbs (>25%) cover, with a sparse shrub cover (<10%). Rough fescue (*Festuca campestris*) is dominant in the northwestern portion of the state and Idaho fescue (*Festuca idahoensis*) is dominant or co-dominant throughout the range of the system. Bluebunch wheatgrass (*Pseudoroegneria spicata*) occurs as a co-dominant throughout the range as well, especially on xeric sites. Western wheatgrass (*Pascopyrum smithii*) is consistently present, often with appreciable coverage (>10%) in lower elevation occurrences in western Montana and virtually always present, with relatively high coverages (>25%), on the edge of the Northwestern Great Plains region. Species diversity ranges from a high of more than 50 per 400 square meter plot on mesic sites to 15 (or fewer) on xeric and disturbed sites. Most occurrences have at least 25 vascular species present. Farmland conversion, noxious species invasion, fire suppression, heavy grazing and oil and gas development are major threats to this system.

Human Land Use
Developed

No Image

10% (520 Acres)

Commercial / Industrial

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

Wetland and Riparian Systems
Open Water

7% (334 Acres)

Open Water

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

Human Land Use
Agriculture

5% (243 Acres)

Pasture/Hay

These agriculture lands typically have perennial herbaceous cover (e.g. regularly-shaped plantings) used for livestock grazing or the production of hay. There are obvious signs of management such as irrigation and haying that distinguish it from natural grasslands. Identified CRP lands are included in this land cover type.

Wetland and Riparian Systems
Wet meadow

3% (163 Acres)

Alpine-Montane Wet Meadow

These moderate-to-high-elevation systems are found throughout the Rocky Mountains, dominated by herbaceous species found on wetter sites with very low-velocity surface and subsurface flows. Occurrences range in elevation from montane to alpine at 1,000 to 3,353 meters (3,280-11,000 feet). This system typically occurs in cold, moist basins, seeps and alluvial terraces of headwater streams or as a narrow strip adjacent to alpine lakes (Hansen et al., 1996). Wet meadows are typically found on flat areas or gentle slopes, but may also occur on sub-irrigated sites with slopes up to 10 percent. In alpine regions, sites are typically small depressions located below late-melting snow patches or on snowbeds. The growing season may only last for one to two months. Soils of this system may be mineral or organic. In either case, soils show typical hydric soil characteristics, including high organic content and/or low chroma and redoximorphic features. This system often occurs as a mosaic of several plant associations, often dominated by graminoids such as tufted hairgrass (*Deschampsia caespitosa*), and a diversity of montane or alpine sedges such as small-head sedge (*Carex illota*), small-winged sedge (*Carex microptera*), black alpine sedge (*Carex nigricans*), Holm's Rocky Mountain sedge (*Carex scopulorum*) shortstalk sedge (*Carex podocarpa*) and Payson's sedge (*Carex paysonis*). Drummond's rush (*Juncus drummondii*), Merten's rush (*Juncus mertensianus*), and high elevation bluegrasses (*Poa arctica* and *Poa alpina*) are often present. Forbs such as arrow-leaf groundsel (*Senecio triangularis*), slender-sepal marsh marigold (*Caltha leptosepala*), and spreading globeflower (*Trollius laxus*) often form high cover in higher elevation meadows. Wet meadows are associated with snowmelt and are usually not subjected to high disturbance events such as flooding.

Human Land Use
Agriculture

3% (139 Acres)

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.

Human Land Use
Developed

2% (106 Acres)

High Intensity Residential

Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50-80% of the total cover. These areas most commonly include single-family housing units in urban areas. Paved roadways, parking lots, and other large impervious surfaces may be classified into this category.

Forest and Woodland Systems
Conifer-dominated forest and woodland (xeric-mesic)

2% (82 Acres)

Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest

This ecological system, composed of highly variable montane conifer forests, is found throughout Montana. It is associated with a submesic climate regime with annual precipitation ranging from 250 to 1,000 millimeters (10-39 inches), with most precipitation occurring during winter, and April through June. Winter snowpacks typically melt off in early spring at lower elevations. Elevations range from valley bottoms to 1,676 meters (5,500 feet) in northwestern Montana and up to 2,286 meters (7,500 feet) on warm aspects in southern Montana. In northwestern and west-central Montana, this ecosystem forms a forest belt on warm, dry to slightly moist sites. It generally occurs on gravelly soils with good aeration and drainage and a neutral to slightly acidic pH. In the western part of the state, it is seen mostly on well drained mountain slopes and valleys from lower treeline to up to 1,676 meters (5,500 feet). Immediately east of the Continental Divide, in north-central Montana, it occurs at montane elevations. Douglas-fir (*Pseudotsuga menziesii*) is the dominant conifer both as a seral and climax species. West of the Continental Divide, occurrences can be dominated by any combination of Douglas-fir and long-lived, seral western larch (*Larix occidentalis*), grand fir (*Abies grandis*), ponderosa pine (*Pinus ponderosa*) and lodgepole pine (*Pinus contorta*). Aspen (*Populus tremuloides*) and western white pine (*Pinus monticola*) have a minor status, with western white pine only in extreme western Montana. East of the Continental Divide, larch is absent and lodgepole pine is the co-dominant. Engelmann spruce (*Picea engelmannii*), white spruce, (*Picea glauca*)or their hybrid, become increasingly common towards the eastern edge of the Douglas-fir forest belt.

Additional Limited Land Cover

1% (*61 Acres*) ■ Major Roads

1% (*57 Acres*) ■ Railroad

1% (*37 Acres*) ■ Quarries, Strip Mines and Gravel Pits

<1% (*13 Acres*) ■ Introduced Upland Vegetation - Annual and Biennial Forbland

<1% (*8 Acres*) ■ Rocky Mountain Ponderosa Pine Woodland and Savanna

<1% (*6 Acres*) ■ Rocky Mountain Mesic Montane Mixed Conifer Forest

<1% (*5 Acres*) ■ Rocky Mountain Montane-Foothill Deciduous Shrubland

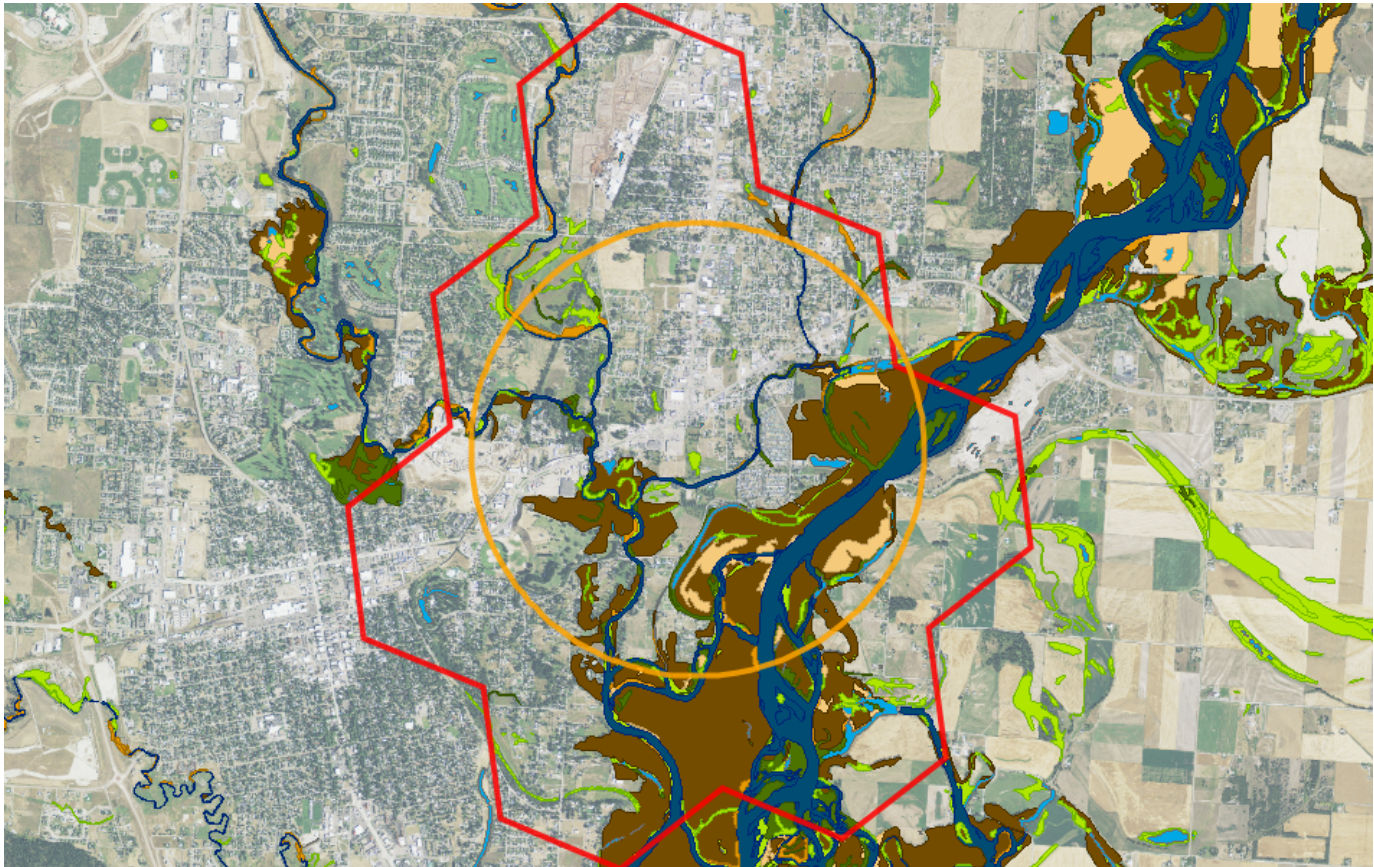<1% (*1 Acres*) ■ Emergent Marsh

<1% (*0 Acres*) ■ Insect-Killed Forest

<1% (*0 Acres*) ■ Rocky Mountain Subalpine-Montane Mesic Meadow

<1% (*0 Acres*) ■ Aspen and Mixed Conifer Forest

<1% (*0 Acres*) ■ Rocky Mountain Subalpine-Montane Fen

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Wetland and Riparian

Summarized by: **24PRVT0064** *(Custom Area of Interest)*

Wetland and Riparian Mapping   *Explain* ⧉

P - Palustrine

🟦 **UB - Unconsolidated Bottom**			**P - Palustrine, UB - Unconsolidated Bottom**
F - Semipermanently Flooded		1 Acres	*Wetlands where mud, silt or similar fine particles cover at least 25% of the bottom, and where vegetation cover is less than 30%.*
x - Excavated	**1 Acres**	**PUBFx**	

🟦 **AB - Aquatic Bed**			**P - Palustrine, AB - Aquatic Bed**
F - Semipermanently Flooded		44 Acres	*Wetlands with vegetation growing on or below the water surface for most of the growing season.*
(no modifier)	**39 Acres**	**PABF**	
h - Diked/Impounded	**2 Acres**	**PABFh**	
x - Excavated	**3 Acres**	**PABFx**	
G - Intermittently Exposed		10 Acres	
(no modifier)	**2 Acres**	**PABG**	
x - Excavated	**8 Acres**	**PABGx**	

🟩 **EM - Emergent**			**P - Palustrine, EM - Emergent**
A - Temporarily Flooded		87 Acres	*Wetlands with erect, rooted herbaceous vegetation present during most of the growing season.*
(no modifier)	**87 Acres**	**PEMA**	
C - Seasonally Flooded		19 Acres	
(no modifier)	**19 Acres**	**PEMC**	
F - Semipermanently Flooded		7 Acres	
(no modifier)	**7 Acres**	**PEMF**	

🟩 **SS - Scrub-Shrub**			**P - Palustrine, SS - Scrub-Shrub**
A - Temporarily Flooded		121 Acres	*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.*
(no modifier)	**121 Acres**	**PSSA**	
C - Seasonally Flooded		3 Acres	
(no modifier)	**3 Acres**	**PSSC**	
F - Semipermanently Flooded		4 Acres	
(no modifier)	**4 Acres**	**PSSF**	

R - Riverine (Rivers)
2 - Lower Perennial

■ UB - Unconsolidated Bottom

R - Riverine (Rivers), 2 - Lower Perennial, UB -
Unconsolidated Bottom

...els where the substrate is at least 25% mud, silt
or other fine particles.

F - Semipermanently Flooded   17 Acres

    (no modifier)   **17 Acres R2UBF**

■ US - Unconsolidated Shore

R - Riverine (Rivers), 2 - Lower Perennial, US -
Unconsolidated Shore

A - Temporarily Flooded   57 Acres

    (no modifier)   **57 Acres R2USA**

*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.*

3 - Upper Perennial

■ UB - Unconsolidated Bottom

R - Riverine (Rivers), 3 - Upper Perennial, UB -
Unconsolidated Bottom

H - Permanently Flooded   277 Acres

    (no modifier)   **277 Acres R3UBH**

*Stream channels where the substrate is at least 25% mud, silt
or other fine particles.*

Rp - Riparian

1 - Lotic

■ SS - Scrub-Shrub
(no modifier)   **41 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)   **810 Acres Rp1FO**

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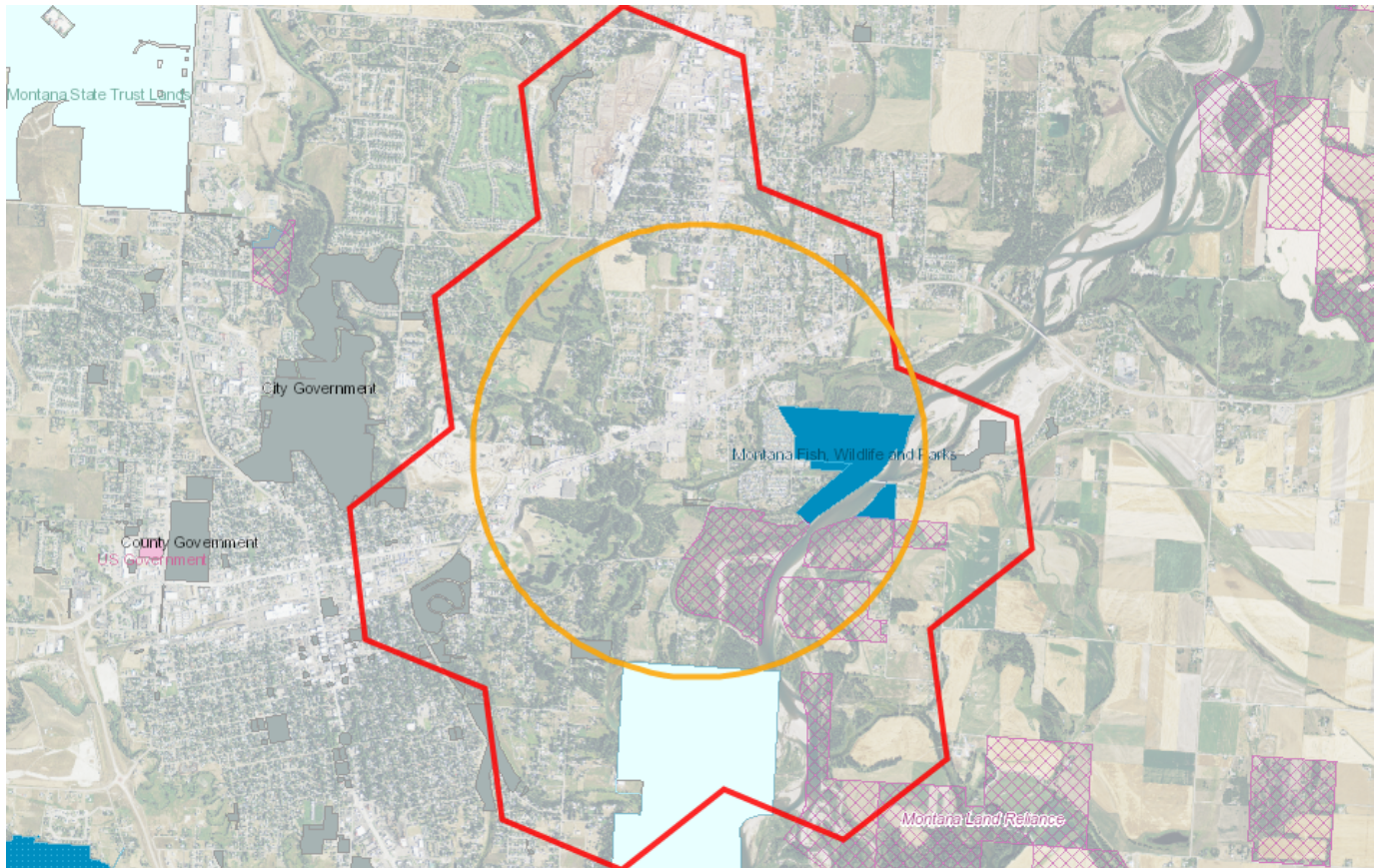meters (20 feet) tall.*

■ EM - Emergent
(no modifier)   **63 Acres Rp1EM**

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

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Land Management

Summarized by: **24PRVT0064** *(Custom Area of Interest)*

Land Management Summary

Explain ↗

	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
📁 **Public Lands**	**581 Acres (11%)**			
📁 **State**	**473 Acres (9%)**			
📁 **Montana State Trust Lands**	**341 Acres (7%)**			
▫ MT State Trust Owned	**341 Acres (7%)**			
📁 **Natural Areas**				**346 Acres**
▫ Owen Sowerwine State Natural Area				346 Acres
📁 **Montana Fish, Wildlife and Parks**	**132 Acres (3%)**			
▪ MTFWP Owned	**132 Acres (3%)**			
📁 **MTFWP Fishing Access Sites**				**132 Acres**
▫ Old Steel Bridge Fishing Access Site				127 Acres
▫ Shady Lane Fishing Access Site				5 Acres
📁 **Local**	**108 Acres (2%)**			
📁 **Local Government**	**108 Acres (2%)**			
▪ Local Government Owned	**108 Acres (2%)**			
📁 **Conservation Easements**			**399 Acres (8%)**	
📁 **Private**			**254 Acres (5%)**	
▨ Montana Land Reliance			**254 Acres (5%)**	
📁 **Federal**			**145 Acres (3%)**	
▨ US Government			**145 Acres (3%)**	
📁 **Private Lands or Unknown Ownership**	**4,136 Acres (81%)**			

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Biological Reports

Summarized by: **24PRVT0064** *(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

No Biological Reports were found in the selected area

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Model Icons	Habitat Icons	Range Icons	Num Obs
N Suitable (native range)	**C** Common	**N** Non-native	Count of obs with 'good precision' (<=1000m)
O Optimal Suitability	**O** Occasional		**+** indicates additional 'poor precision' obs (1001m-10,000m)
M Moderate Suitability			
L Low Suitability			
I Suitable (introduced range)			

Latitude: 48.18156 48.24373
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Invasive and Pest Species

Summarized by: **24PRVT0064** *(Custom Area of Interest)*

	# Obs	Predicted Model	Range

Aquatic Invasive Species

V - Iris pseudacorus *(Yellowflag Iris)* **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: **O** 100% Optimal (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: **O** 75% Optimal (inductive), **M** 12% Moderate (inductive), **L** 12% Low (inductive)

V - Potamogeton crispus *(Curly-leaf Pondweed)* **N2B/AIS**
View in Field Guide   View Predicted Models   View Range Maps
Noxious Weed: Priority 2B - Aquatic Invasive Species - Non-native Species   Global: **G5**   State: **SNA**
Predicted Models: **O** 13% Optimal (inductive), **M** 37% 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** 25% Moderate (inductive), **L** 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: **I** 100% Suitable (introduced range) (deductive)

I - Faxonius virilis *(Virile Crayfish)* **AIS**   1   Not Assessed
View in Field Guide
Aquatic Invasive Species - Native/Non-native Species - (depends on location or taxa)   Global: **G5**   State: **S5**

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: **O** 100% Optimal (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: **M** 25% Moderate (inductive), **L** 63% 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: **L** 75% 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: **L** 37% Low (inductive)

Noxious Weeds: Priority 1B

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: **O** 75% Optimal (inductive), **M** 12% Moderate (inductive), **L** 12% Low (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: **O** 75% Optimal (inductive), **M** 12% Moderate (inductive), **L** 12% 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: **O** 38% Optimal (inductive), **M** 37% Moderate (inductive), **L** 25% Low (inductive)

V - Chondrilla juncea *(Rush Skeletonweed)* **N1B**
View in Field Guide   View Predicted Models   View Range Maps
Noxious Weed: Priority 1B - Non-native Species   Global: **GNR**   State: **SNA**
Predicted Models: **O** 37% Optimal (inductive), **M** 50% Moderate (inductive), **L** 12% Low (inductive)

V - Lythrum salicaria *(Purple Loosestrife)* **N1B**

Noxious Weed: Priority 1B - Non-native Species   Global: **G5**   State: **SNA**
Predicted Models: **O** 25% Optimal (inductive), **M** 75% Moderate (inductive)

V - Echium vulgare *(Blueweed)* **N1B**

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

Noxious Weeds: Priority 2A

V - Iris pseudacorus *(Yellowflag Iris)* **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: **O** 100% Optimal (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: **O** 100% Optimal (inductive)

V - Hieracium aurantiacum *(Orange 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: **O** 88% Optimal (inductive), **M** 12% Moderate (inductive)

V - Ranunculus acris *(Tall Buttercup)* **N2A**

View in Field Guide   **View Predicted Models**   **View Range Maps**
Noxious Weed: Priority 2A - Non-native Species   Global: **G5**   State: **SNA**
Predicted Models: **O** 88% Optimal (inductive), **M** 12% Moderate (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: **O** 75% Optimal (inductive), **M** 12% Moderate (inductive), **L** 12% Low (inductive)

V - Hieracium caespitosum *(Meadow 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: **O** 38% Optimal (inductive), **M** 62% Moderate (inductive)

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: **O** 12% Optimal (inductive), **M** 88% Moderate (inductive)

V - Hieracium piloselloides *(Tall 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: **M** 100% Moderate (inductive)

V - Senecio jacobaea *(Tansy Ragwort)* **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** 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** 25% Moderate (inductive), **L** 50% 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: **L** 100% Low (inductive)

V - Lepidium latifolium *(Perennial Pepperweed)* **N2A**

View in Field Guide   **View Predicted Models**   **View Range Maps**
Noxious Weed: Priority 2A - Non-native Species   Global: **GNR**   State: **SNA**
Predicted Models: **L** 88% Low (inductive)

Noxious Weeds: Priority 2B

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: **O** 100% Optimal (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: **O** 100% Optimal (inductive)

V - Hypericum perforatum *(Common St. John's-wort)* **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** 88% Optimal (inductive), **M** 12% Moderate (inductive)

V - Linaria dalmatica *(Dalmatian Toadflax)* N2B   5

View in Field Guide   View Predicted Models   View Range Maps

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

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

V - Cynoglossum officinale *(Common Hound's-tongue)* N2B   11

View in Field Guide   View Predicted Models   View Range Maps

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

Predicted Models: O 38% Optimal (inductive), M 62% Moderate (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: O 13% Optimal (inductive), M 50% Moderate (inductive), L 37% Low (inductive)

V - Potamogeton crispus *(Curly-leaf Pondweed)* N2B/AIS

View in Field Guide   View Predicted Models   View Range Maps

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

Predicted Models: O 13% Optimal (inductive), M 37% Moderate (inductive), L 50% Low (inductive)

V - Centaurea stoebe *(Spotted Knapweed)* N2B   56

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 - Euphorbia virgata *(Leafy Spurge)* 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: M 75% Moderate (inductive), L 25% Low (inductive)

V - Convolvulus arvensis *(Field Bindweed)* N2B   8

View in Field Guide   View Predicted Models   View Range Maps

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

Predicted Models: M 63% Moderate (inductive), L 37% Low (inductive)

V - Cirsium arvense *(Canada Thistle)* N2B   34

View in Field Guide   View Predicted Models   View Range Maps

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

Predicted Models: M 38% Moderate (inductive), L 62% 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 13% Moderate (inductive), L 87% Low (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: L 100% 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 100% Low (inductive)

V - Tamarix ramosissima *(Salt Cedar)* 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 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 - 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: L 75% Low (inductive)

Regulated Weeds: Priority 3

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 37% Moderate (inductive), L 63% Low (inductive)

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: L 100% 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 100% Optimal (inductive)

I - Cyphocleonus achates *(Knapweed Root Weevil)*   BIOCNTRL

View in Field Guide   **View Predicted Models**   **View Range Maps**
Biocontrol Species - Non-native Species   Global: **GNR**   State: **SNA**
Predicted Models: O 88% Optimal (inductive), M 12% Moderate (inductive)

I - Mecinus janthinus *(Yellow 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: O 75% Optimal (inductive), M 25% 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 50% Moderate (inductive), L 50% Low (inductive)

Introduction to Montana Natural Heritage Program

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 60 natural heritage programs that are distributed across North America.

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 to allow users to save time and money, speed environmental reviews, and make informed decisions.

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 Data	Cara Whalen– MFWP Data Analyst cara.whalen@mt.gov (406) 444-3759
Fisheries Data and Nongame Animal 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 Kristina Smucker for Wildlife ksmucker@mt.gov (406) 444-5209 Dave Schmetterling for Fisheries dschmetterling@mt.gov (406) 542-5514
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:
https://dnrc.mt.gov/Permits-Services

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.).
https://dnrc.mt.gov/Licenses-and-Permits/Stream-Permitting

Wildfire Resources: https://dnrc.mt.gov/Forestry/Wildfire

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://ipac.ecosphere.fws.gov
Montana Ecological Services Field Office: https://www.fws.gov/office/montana-ecological-services (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
Aquatic Ecologist	Justin Jimenez	justin.jimenez@usda.gov	(435) 370-6830
TES Program	Lydia Allen	lydia.allen@usda.gov	(406) 329-3558
Interagency Grizzly Bear Coordinator	Scott Jackson	scott.jackson@usda.gov	(406) 329-3664
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
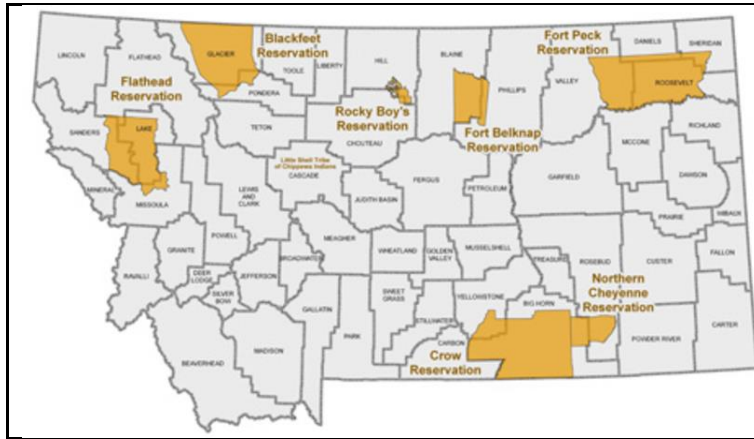
	Assiniboine & Gros Ventre Tribes – Fort Belknap Reservation
	Assiniboine & Sioux Tribes – Fort Peck Reservation
	Blackfeet Tribe - Blackfeet Reservation
	Chippewa Creek Tribe - Rocky Boy's Reservation
	Crow Tribe – Crow Reservation
	Little Shell Chippewa Tribe
	Northern Cheyenne Tribe – Northern Cheyenne 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 or plant observations that you would like to contribute, you can also submit them via Excel spreadsheets, geodatabases, iNaturalist, or a Survey123 form. Various methods of data submission are reviewed in this playlist of videos: https://www.youtube.com/playlist?list=PLRaydtZpHu2qOHPoSPq9cnM9uXGmEXACx

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
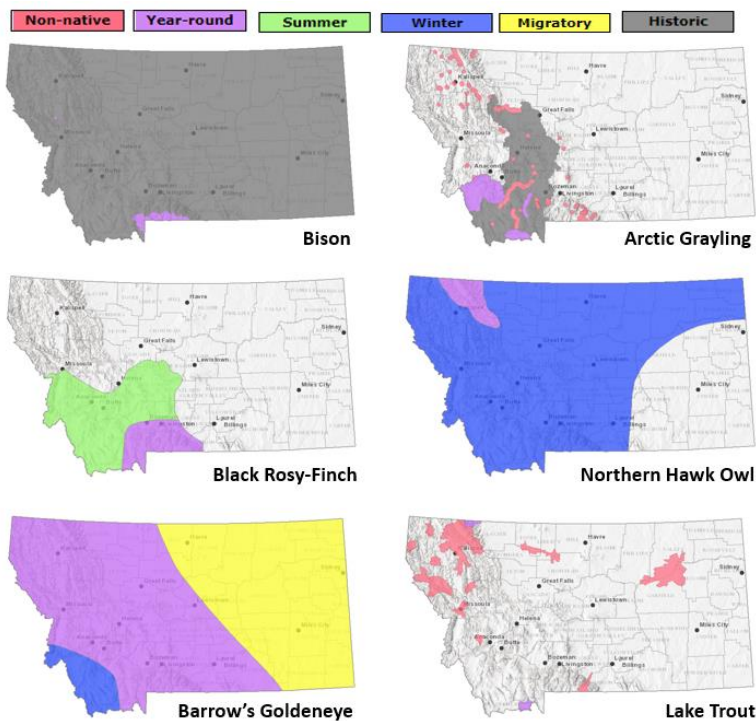
populations have been defined for most vertebrate animal species for which there are enough observations, surveys, and knowledge of appropriate seasonal habitat use to define them (see examples to left). These native or introduced range polygons bound the extent of known or likely occupied habitats for 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 from the Montana State Library's GIS Data List More information on the land cover layer is available at: https://msl.mt.gov/geoinfo/msdi/land_use_land_cover/

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 detailed overviews, with examples, of both wetland and riparian classification systems and associated codes as a storymap and companion guide

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 landowner. 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 animal or plant observations that you would like to contribute, you can also submit them via Excel spreadsheets, geodatabases, iNaturalist, or a Survey123 form. Various methods of data submission are reviewed in this playlist of videos:
https://www.youtube.com/playlist?list=PLRaydtZpHu2qOHPoSPq9cnM9uXGmEXACx

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

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

Flathead County, Montana

Local office

Montana Ecological Services Field Office

   📞 (406) 449-5225

   📠 (406) 449-5339

585 Shephard Way, Suite 1

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](#).

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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
Canada Lynx Lynx canadensis There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3652	Threatened
Grizzly Bear Ursus arctos horribilis There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/7642	Threatened
North American Wolverine Gulo gulo luscus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Birds

NAME	STATUS
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout Salvelinus confluentus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8212	Threatened

Insects

NAME	STATUS

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

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

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

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- 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

There are bald and/or golden eagles in your project area.

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 Jan 1 to Aug 31
Golden Eagle *Aquila chrysaetos* 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. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

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.

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see 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 of bald and golden eagles 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 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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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 Jan 1 to Aug 31
Black Swift Cypseloides niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black Tern Chlidonias niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
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
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15

Evening Grosbeak Coccothraustes vespertinus   Breeds May 15 to Aug 10
   This is a Bird of Conservation Concern (BCC) throughout its
   range in the continental USA and Alaska.

Franklin's Gull Leucophaeus pipixcan   Breeds May 1 to Jul 31
   This is a Bird of Conservation Concern (BCC) throughout its
   range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos   Breeds Jan 1 to Aug 31
   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.
   https://ecos.fws.gov/ecp/species/1680

Lesser Yellowlegs Tringa flavipes   Breeds elsewhere
   This is a Bird of Conservation Concern (BCC) throughout its
   range in the continental USA and Alaska.
   https://ecos.fws.gov/ecp/species/9679

Lewis's Woodpecker Melanerpes lewis   Breeds Apr 20 to Sep 30
   This is a Bird of Conservation Concern (BCC) throughout its
   range in the continental USA and Alaska.
   https://ecos.fws.gov/ecp/species/9408

Long-eared Owl asio otus   Breeds Mar 1 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/3631

Olive-sided Flycatcher Contopus cooperi   Breeds May 20 to Aug 31
   This is a Bird of Conservation Concern (BCC) throughout its
   range in the continental USA and Alaska.
   https://ecos.fws.gov/ecp/species/3914

Rufous Hummingbird selasphorus rufus   Breeds Apr 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/8002

Western Grebe *aechmophorus occidentalis*   Breeds Jun 1 to Aug 31
> This is a Bird of Conservation Concern (BCC) throughout its
> range in the continental USA and Alaska.
> https://ecos.fws.gov/ecp/species/6743

Willet *Tringa semipalmata*   Breeds Apr 20 to Aug 5
> 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.

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Golden Eagle Non-BCC Vulnerable												
Lesser Yellowlegs BCC Rangewide (CON)												
Lewis's Woodpecker BCC Rangewide (CON)												
Long-eared Owl BCC Rangewide (CON)												
Olive-sided Flycatcher BCC Rangewide (CON)												
Rufous Hummingbird BCC Rangewide (CON)												
Western Grebe BCC Rangewide (CON)												
Willet BCC Rangewide (CON)												

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.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

CBRA information is not available at this time

This can happen when the CBRS map service is unavailable, or for very large projects that intersect many coastal areas. Try again, or visit the [CBRS map](#) to view coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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

> [PEM1A](#)

FRESHWATER POND

> [PABFx](#)

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.

NEPAssist Report
LS19 Airshed
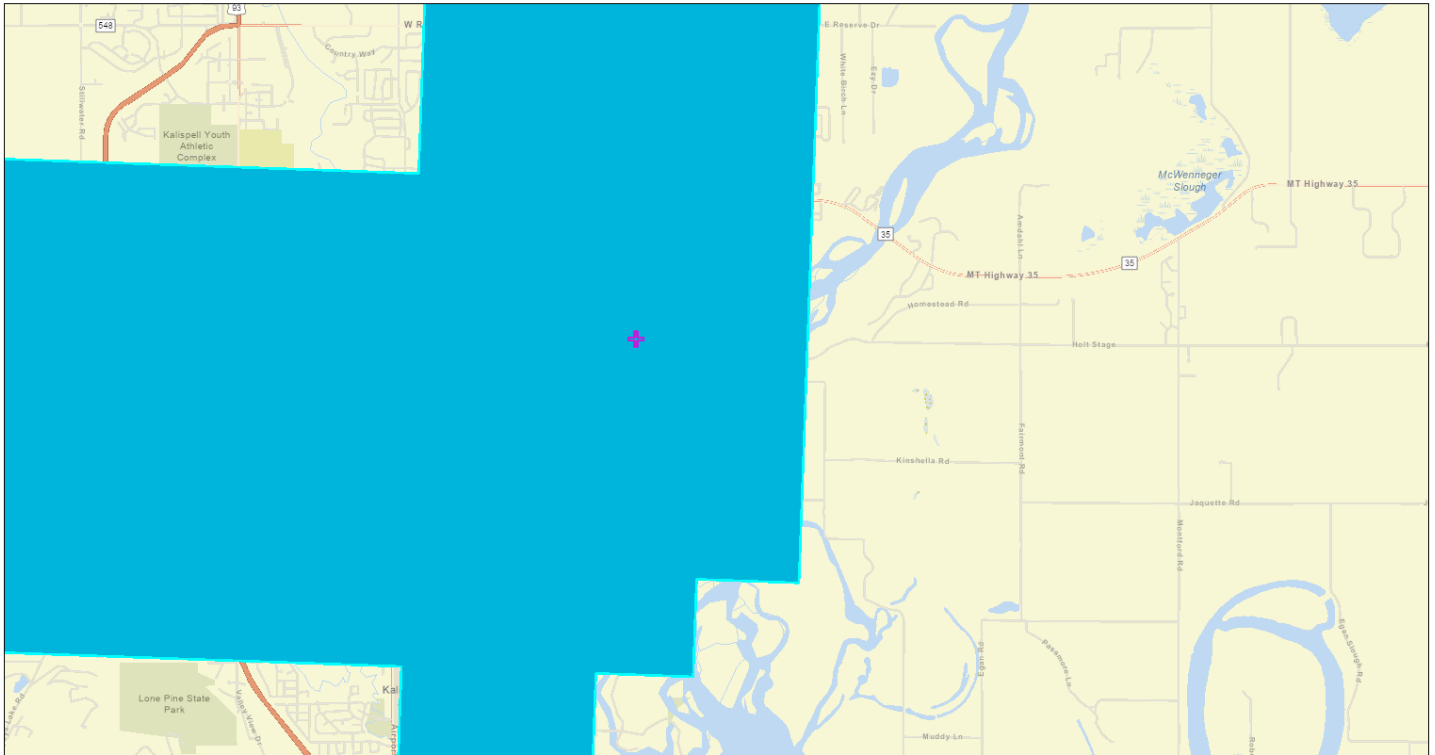
September 7, 2023

☐ LS19 Airshed

✚ Search Result (point)

PM10 (1987 standard)

■ Maintenance
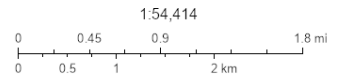
1:54,414

Input Coordinates: 48.243421,-114.250733,48.189386,-114.253627,48.189721,-114.267681,48.180794,-114.268156,48.181110,-114.281505,48.172183,-114.281978,48.171866,-114.268631,48.162939,-114.269105,48.162604,-114.255058,48.144749,-114.256011,48.145416,-114.284095,48.136488,-114.284567,48.137099,-114.310541,48.181739,-114.308205,48.183299,-114.375659,48.228411,-114.373353,48.226848,-114.305838,48.244704,-114.304899,48.243421,-114.250733	
Project Area	25.95 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?	yes
Within a Federal Land?	no
Within an impaired stream?	yes
Within an impaired waterbody?	no
Within a waterbody?	yes
Within a stream?	yes
Within an NWI wetland?	Available Online
Within a Brownfields site?	yes
Within a Superfund site?	no

Within a Toxic Release Inventory (TRI) site?	yes
Within a water discharger (NPDES)?	yes
Within a hazardous waste (RCRA) facility?	yes
Within an air emission facility?	yes
Within a school?	yes
Within an airport?	yes
Within a hospital?	yes
Within a designated sole source aquifer?	no
Within a historic property on the National Register of Historic Places?	yes
Within a Toxic Substances Control Act (TSCA) site?	yes
Within a Land Cession Boundary?	yes
Within a tribal area (lower 48 states)?	no
Within the service area of a mitigation or conservation bank?	no
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?	yes

Created on: 9/7/2023 7:17:53 PM

Spring Creek Watershed StreamStats Report

Region ID: MT
Workspace ID: MT20230907214408018000
Clicked Point (Latitude, Longitude):   48.20952, -114.27792
Time: 2023-09-07 15:44:36 -0600

Evergreen Sewer System Lift Station #19 Located within this watershed.

✚ Collapse All

❯ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLDEM30M	Mean basin slope computed from 30 m DEM	8	percent
CHANWD_RS	Channel width determined from remotely sensed data sources, including aerial imagery	0	feet
CONTDA	Area that contributes flow to a point on a stream	36.2	square miles

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	36.2	square miles
FOREST	Percentage of area covered by forest	43.5	percent
LC01DEV	Percentage of land-use from NLCD 2001 classes 21-24	17	percent
PRECIP	Mean Annual Precipitation	22.42	inches
SLOP50_30M	Percent area with slopes greater than 50 percent from 30-meter DEM.	2.2	percent
TEMP	Mean Annual Temperature	42.37	degrees F
WACTCH	Width of active channel	0	feet
WBANKFULL	Width of channel at bankfull	0	feet

> ## Annual Flow Statistics

Annual Flow Statistics Parameters [W Region Annual MeanDur 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	36.2	square miles	6.4	2520
SLOP50_30M	Slopes_gt_50pct_from_30m_DEM	2.2	percent	1.87	67.5

Annual Flow Statistics Flow Report [W Region Annual MeanDur 2015 5019G]

Statistic	Value	Unit
Median Annual Flow	5.59	ft^3/s
Mean Annual Flow	8.42	ft^3/s

Annual Flow Statistics Citations

McCarthy, P.M., Sando, Roy, Sando, S.K., and Dutton, D.M.,2016, Methods for estimating streamflow characteristics at ungaged sites in western Montana based on data through water year 2009: U.S. Geological Survey Scientific Investigations Report 2015–5019–G, 19 p. (https://doi.org/10.3133/sir20155019)

❯ Peak-Flow Statistics

Peak-Flow Statistics Parameters [W Region BasinC 2015 5019F]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	36.2	square miles	0.6	2470
PRECIP	Mean Annual Precipitation	22.42	inches	14.6	62.1
FOREST	Percent Forest	43.5	percent	20.4	99.1

Peak-Flow Statistics Parameters [W Region Active Channel SIR 2020 5142]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
WACTCH	Width Of Active Channel	0	feet	3	213

Peak-Flow Statistics Parameters [W Region Bankfull SIR 2020 5142]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
WBANKFULL	Width Of Bankfull Channel	0	feet	5	246

Peak-Flow Statistics Parameters [W Region Aerial Photo SIR 2020 5142]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CHANWD_RS	Channel_Width_remotely_sensed	0	feet	2.3	203.8

Peak-Flow Statistics Flow Report [W Region BasinC 2015 5019F]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PlI	Plu	ASEp
66.7-percent AEP flood	113	ft^3/s	45.1	283	59.4
50-percent AEP flood	153	ft^3/s	63.3	370	56.5
42.9-percent AEP flood	173	ft^3/s	72.2	415	55.7
20-percent AEP flood	274	ft^3/s	118	635	53.4
10-percent AEP flood	384	ft^3/s	167	883	52.8
4-percent AEP flood	519	ft^3/s	225	1200	53.2

Statistic	Value	Unit	PII	PIu	ASEp
2-percent AEP flood	634	ft^3/s	269	1490	54.2
1-percent AEP flood	761	ft^3/s	317	1830	56
0.5-percent AEP flood	896	ft^3/s	363	2210	58
0.2-percent AEP flood	1070	ft^3/s	414	2760	61.4

Peak-Flow Statistics Disclaimers [W Region Active Channel SIR 2020 5142]

> One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Peak-Flow Statistics Flow Report [W Region Active Channel SIR 2020 5142]

Statistic	Value	Unit
Active chan width 66.7 percent AEP flood	0	ft^3/s
Active Channel Width 50-percent AEP flood	0	ft^3/s
Active chan width 42.9 percent AEP flood	0	ft^3/s
Active Channel Width 20-percent AEP flood	0	ft^3/s
Active Channel Width 10-percent AEP flood	0	ft^3/s
Active Channel Width 4-percent AEP flood	0	ft^3/s
Active Channel Width 2-percent AEP flood	0	ft^3/s
Active Channel Width 1-percent AEP flood	0	ft^3/s
Active Channel Width 0.5-percent AEP flood	0	ft^3/s
Active Channel Width 0.2-percent AEP flood	0	ft^3/s

Peak-Flow Statistics Disclaimers [W Region Bankfull SIR 2020 5142]

> One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Peak-Flow Statistics Flow Report [W Region Bankfull SIR 2020 5142]

Statistic	Value	Unit
Bankfull width 66.7 percent AEP flood	0	ft^3/s
Bankfull Width 50-percent AEP flood	0	ft^3/s
Bankfull width 42.9 percent AEP flood	0	ft^3/s

Statistic	Value	Unit
Bankfull Width 20-percent AEP flood	0	ft^3/s
Bankfull Width 10-percent AEP flood	0	ft^3/s
Bankfull Width 4-percent AEP flood	0	ft^3/s
Bankfull Width 2-percent AEP flood	0	ft^3/s
Bankfull Width 1-percent AEP flood	0	ft^3/s
Bankfull Width 0.5-percent AEP flood	0	ft^3/s
Bankfull Width 0.2-percent AEP flood	0	ft^3/s

Peak-Flow Statistics Disclaimers   [W Region Aerial Photo SIR 2020 5142]

> One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Peak-Flow Statistics Flow Report   [W Region Aerial Photo SIR 2020 5142]

Statistic	Value	Unit
Rem sens chan width 66.7 percent AEP fld	0	ft^3/s
Rem_sens_chan_width_50_percent_AEP_flood	0	ft^3/s
Rem sens chan width 42.9 percent AEP fld	0	ft^3/s
Rem_sens_chan_width_20_percent_AEP_flood	0	ft^3/s
Rem_sens_chan_width_10_percent_AEP_flood	0	ft^3/s
Rem_sens_chan_width_4_percent_AEP_flood	0	ft^3/s
Rem_sens_chan_width_2_percent_AEP_flood	0	ft^3/s
Rem_sens_chan_width_1_percent_AEP_flood	0	ft^3/s
Rem_sens_chan_width_0_5_pct_AEP_flood	0	ft^3/s
Rem_sens_chan_width_0_2_pct_AEP_flood	0	ft^3/s

Peak-Flow Statistics Flow Report   [Area-Averaged]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIl	PIu	ASEp
66.7-percent AEP flood	113	ft^3/s	45.1	283	59.4
50-percent AEP flood	153	ft^3/s	63.3	370	56.5
42.9-percent AEP flood	173	ft^3/s	72.2	415	55.7

Statistic	Value	Unit	Pll	Plu	ASEp
20-percent AEP flood	274	ft^3/s	118	635	53.4
10-percent AEP flood	384	ft^3/s	167	883	52.8
4-percent AEP flood	519	ft^3/s	225	1200	53.2
2-percent AEP flood	634	ft^3/s	269	1490	54.2
1-percent AEP flood	761	ft^3/s	317	1830	56
0.5-percent AEP flood	896	ft^3/s	363	2210	58
0.2-percent AEP flood	1070	ft^3/s	414	2760	61.4
Active chan width 66.7 percent AEP flood	0	ft^3/s			
Active Channel Width 50-percent AEP flood	0	ft^3/s			
Active chan width 42.9 percent AEP flood	0	ft^3/s			
Active Channel Width 20-percent AEP flood	0	ft^3/s			
Active Channel Width 10-percent AEP flood	0	ft^3/s			
Active Channel Width 4-percent AEP flood	0	ft^3/s			
Active Channel Width 2-percent AEP flood	0	ft^3/s			
Active Channel Width 1-percent AEP flood	0	ft^3/s			
Active Channel Width 0.5-percent AEP flood	0	ft^3/s			
Active Channel Width 0.2-percent AEP flood	0	ft^3/s			
Bankfull width 66.7 percent AEP flood	0	ft^3/s			
Bankfull Width 50-percent AEP flood	0	ft^3/s			
Bankfull width 42.9 percent AEP flood	0	ft^3/s			
Bankfull Width 20-percent AEP flood	0	ft^3/s			
Bankfull Width 10-percent AEP flood	0	ft^3/s			
Bankfull Width 4-percent AEP flood	0	ft^3/s			
Bankfull Width 2-percent AEP flood	0	ft^3/s			
Bankfull Width 1-percent AEP flood	0	ft^3/s			
Bankfull Width 0.5-percent AEP flood	0	ft^3/s			
Bankfull Width 0.2-percent AEP flood	0	ft^3/s			
Rem sens chan width 66.7 percent AEP fld	0	ft^3/s			
Rem_sens_chan_width_50_percent_AEP_flood	0	ft^3/s			
Rem sens chan width 42.9 percent AEP fld	0	ft^3/s			

Statistic	Value	Unit	PlI	Plu	ASEp
Rem_sens_chan_width_20_percent_AEP_flood	0	ft^3/s			
Rem_sens_chan_width_10_percent_AEP_flood	0	ft^3/s			
Rem_sens_chan_width_4_percent_AEP_flood	0	ft^3/s			
Rem_sens_chan_width_2_percent_AEP_flood	0	ft^3/s			
Rem_sens_chan_width_1_percent_AEP_flood	0	ft^3/s			
Rem_sens_chan_width_0_5_pct_AEP_flood	0	ft^3/s			
Rem_sens_chan_width_0_2_pct_AEP_flood	0	ft^3/s			

Peak-Flow Statistics Citations

Sando, Roy, Sando, S.K., McCarthy, P.M., and Dutton, D.M.,2016, Methods for estimating peak-flow frequencies at ungaged sites in Montana based on data through water year 2011: U.S. Geological Survey Scientific Investigations Report 2015−5019−F, 30 p. (https://doi.org/10.3133/sir20155019)
Chase, K.J., Sando, R., Armstrong, D.W., and McCarthy, P., 2021, Regional regression equations based on channel-width characteristics to estimate peak-flow frequencies at ungaged sites in Montana using peak-flow frequency data through water year 2011 (ver. 1.1, September 2021): U.S. Geological Survey Scientific Investigations Report 2020−5142, 49 p. (https://doi.org/10.3133/sir20205142)

❯ Low-Flow Statistics

Low-Flow Statistics Parameters   [W Region LowFlow GLS 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	36.2	square miles	6.4	2520
SLOP50_30M	Slopes_gt_50pct_from_30m_DEM	2.2	percent	1.87	67.5

Low-Flow Statistics Flow Report   [W Region LowFlow GLS 2015 5019G]

PlI: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PlI	Plu	ASEp
7 Day 10 Year Low Flow	1.47	ft^3/s	0.47	4.6	68.5

Low-Flow Statistics Citations

McCarthy, P.M., Sando, Roy, Sando, S.K., and Dutton, D.M.,2016, Methods for estimating streamflow characteristics at ungaged sites in western Montana based on data through water year 2009: U.S. Geological Survey Scientific Investigations Report 2015−5019−G, 19 p. (https://doi.org/10.3133/sir20155019)

❯ Seasonal Flow Statistics

Seasonal Flow Statistics Parameters   [W Region LowFlow GLS 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	36.2	square miles	6.4	2520
SLOP50_30M	Slopes_gt_50pct_from_30m_DEM	2.2	percent	1.87	67.5

Seasonal Flow Statistics Flow Report   [W Region LowFlow GLS 2015 5019G]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIl	PIu	ASEp
Jul_to_Oct_14_Day_5_Yr_Low_Flow	2.4	ft^3/s	0.753	7.65	71.5

Seasonal Flow Statistics Citations

McCarthy, P.M., Sando, Roy, Sando, S.K., and Dutton, D.M.,2016, Methods for estimating streamflow characteristics at ungaged sites in western Montana based on data through water year 2009: U.S. Geological Survey Scientific Investigations Report 2015−5019−G, 19 p. (https://doi.org/10.3133/sir20155019)

❯ Channel-width Methods Weighting

No method weighting results returned.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

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Application Version: 4.17.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

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Emergency Bypass Critical Lift Station 19 Renovation

Scope of Work

Background:

The Evergreen Sewer System was designed to pump all of the wastewater to a central collection point at Lift Station 19, which in turn pumps it through a force main to the City of Kalispell's Wastewater Treatment Plant. This Lift Station is located adjacent to a federally protected wetlands area that is connected to the Flathead River Drainage Basin and is in a residential neighborhood. The Lift Station is also located in proximity to Snappy's Sport Senter, which has a popular nesting tower for eagles and osprey. The wetlands and Snappy's habitat are home to numerous raptors, as well as other protected bird species, fish, and wildlife.

Lift Station 19 was not designed with an emergency bypass facility. As a result, any major failure of pumping equipment or other equipment at the station could result in a catastrophic event where sewage overflows the wet well and floods the surrounding area. A major failure could adversely impact human health and safety by flooding neighborhoods and contaminating drinking water supplies. In such an event, it is probable that sewage would spill out into the adjacent wetlands area, potentially harming protected species and wildlife and eventually contaminating the Flathead River Drainage Basin.

Compounding this potential problem is the fact that Lift Station 19 is operating with equipment that is nearing the end of its functional life cycle, increasing the likelihood of a major failure in the future. The aging equipment also has high energy demands. The upgrade pumps and telemetry will provide significant energy efficiency, benefiting customers and the environment.

For several years, the District has been working to assess these risks and plan for upgrades. In 2019, the District authorized a Preliminary Engineering Report to address, among other issues, the need for Emergency Bypass and Critical Renovations at Lift Station 19. The District is fully prepared to begin this project, but funding must be addressed to make the project feasible.

Scope of Work:

The PER includes several recommendations for renovations and upgrades for most of the lift stations operating in the sewer system. The District has reviewed and prioritized the most important lift station improvements for this project and will focus on the following renovations and improvements:

1. *Emergency Storage:* Construction of a Second Stand-Alone Wet Well with significant additional capacity adjacent to existing pump station and wet well.
2. *Emergency Bypass:* New Bypass Infrastructure will include a new diversion structure, package bypass pump station, yard piping, backup generator, and upgrades to pump station electrical and telemetry controls.
3. *Other Renovations*: Renovations to Lift Station 19 will include the installation of three new pumps and motors, link seals and grouting of pipe penetrations, painting of pumps and piping, a new backup generator, and some miscellaneous mechanical and structural improvements.

This Project meets the ARPA/Clean Water SRF criteria for funding sewer system capital upgrades related to centralized wastewater treatment and for the purpose of protecting human health and safety as well as targeting energy conservation, climate resilience, and providing environmental protection of surface water resources.

NATURAL RESOURCES
AND CONSERVATION

GREG GIANFORTE, GOVERNOR   1539 ELEVENTH AVENUE

── STATE OF MONTANA ──

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

Conservation and Resource Development Division
Environmental Checklist Instructions

Purpose of This Document:

All applicants must consider the potential environmental impacts of their projects. Consideration of these impacts on the location, design, or construction actions may help avoid expensive costs. A project will not be eligible for funding if it results in significant environmental degradation.

DNRC requires compliance with the Montana Environmental Policy Act (MEPA) per state law and associated DNRC Administrative Rules (ARM 36.2.523). MEPA requires state agencies to prepare a detailed statement on any project, program, or activity directly undertaken by the agency; a project or activity supported through a contract, grant, subsidy, loan, or other form of funding assistance from the agency; and a project or activity involving the issuance of a lease, permit, license, certificate, or other entitlement for use or permission by the agency (MCA Title 75, Chapter 1). Thus, all project applications will be subject to MEPA review.

What Does This Mean for Applicants?

All applicants must complete the Environmental Checklist in its entirety and provide sufficient documentation on public participation.

Public participation, or scoping, of the project must include stakeholder, landowner, and community engagement. These efforts can be in the form of documented public meetings (e.g., meeting minutes, pdf presentations) or letters of support.

- The public meeting must be properly noticed (advertised) and the public must be provided with an opportunity at the meeting to comment on the project.
- Minutes of the meeting should reflect what was discussed about the project, including all comments received from the public.
- Letters of support must be included from any identified or interested stakeholders.

Agency Comment Letters (see instructions below)

Please submit these items with your application.

Provide Affidavit of Publication or Meeting Minutes for the public comment period notice on the draft EA

How Will DNRC Use the Information Provided?

The information provided within the Environmental Checklist will be subject to a MEPA review by DNRC. If this review should result in an Environmental Assessment, please be aware that DNRC will draft the Environmental Assessment. The drafted Environmental Assessment decision will be posted for a public comment period of up to 30 days dependent on the level of environmental impact.

When the draft EA is posted, we require the project proponent to post the notice in either one local newspaper outlet in the legal advertising section or provide the notice during a publicly held meeting. The applicant must then provide the affidavit of publication if posted in the newspaper or meeting minutes if discussed in a public meeting. Please note this public comment period <u>does not</u> suffice for the public participation component mentioned above. The MEPA document will then require a final decision by DNRC before funds are awarded.

It is also important to note for projects with no environmental impacts, or those that do not lead directly to construction or any other sort of environmental degradation, will not be subject to an environmental assessment and the checklist/public participation <u>does not</u> need to be completed. Examples of these sorts of activities include, but are not limited to, development of a PER (professional engineering report), planning, and education/informational outreach. Please let us know if there are additional questions on what other projects may fall under this category.

<u>Instructions</u>:

Complete the Environmental Checklist on the following pages after the instructions below. DNRC retains the ultimate decision-making authority on all MEPA decisions. If DNRC determines this section to be incomplete, additional information will be required before consideration for funding.

Example			
Impact Code	**Impact Type**	**Permits/ Mitigation Required?**	**Explanation of Impact to Resource**
1. Soil Suitability, Topographic and/or Geologic Constraints (example: soil slump, steep slopes, subsidence, seismic activity)			
☐ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☐ NA	*Current Conditions:* *Preferred Alternative Environmental Narrative:*

1. **Impact Code:** In the first column, identify the impact that the preferred alternative will have on each resource (e.g. 1. Soil Suitability, Topographic and/or Geologic Constraints) in the project area. Select from the following impact codes:
   - *No Impact*: No impact to the resource is anticipated or this is not applicable to this project.
   - *Beneficial*: Potentially beneficial impact to the resource.
   - *Adverse*: Potentially adverse impact to the resource.

   Please note that a resource may have more than one impact. Identify all possible impacts to the resource in the space provided. For example, the preferred alternative may have a short-term direct negative impact and a long-term direct and indirect positive impact on the resource. Check all boxes that apply and use the space provided in the final column "Explanation of Impact to Resource" to explain.

Example			
Impact Code	**Impact Type**	**Permits/ Mitigation Required?**	**Explanation of Impact to Resource**

1. Soil Suitability, Topographic and/or Geologic Constraints (example: soil slump, steep slopes, subsidence, seismic activity)			
☐ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☐ NA	*Current Conditions:* *Preferred Alternative Environmental Narrative:*

2. **Impact Type:** In the second column, identify the type(s) of impact to the resource from the preferred alternative. (Impacts may be direct, indirect or cumulative).
   - *Direct impacts*: Occur at the same time and place as the proposed project.
   - *Indirect or secondary impacts*: Occur at a different location or later time than the proposed project.
   - *Cumulative impacts*: Collective impacts on the environment when considered in conjunction with other past, present, and future actions related to the proposed project. Cumulative impact analysis includes a review of all state and nonstate activities that have occurred, are occurring, or may occur that have impacted or may impact the same resource as the proposed project.

Just as above, please note that a resource may have more than one impact. Identify all possible impacts to the resource in the space provided. For example, the preferred alternative may have a short-term direct negative impact and a long-term direct and indirect positive impact on the resource. Check all boxes that apply and use the space provided in the final column "Explanation of Impact to Resource" to explain.

Example			
Impact Code	**Impact Type**	**Permits/ Mitigation Required?**	**Explanation of Impact to Resource**
1. Soil Suitability, Topographic and/or Geologic Constraints (example: soil slump, steep slopes, subsidence, seismic activity)			
☐ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☐ NA	*Current Conditions:* *Preferred Alternative Environmental Narrative:*

3. **Permits/Mitigation Required:** In the third column, please select if a permit and/or mitigation is required for the project (e.g., 310, USACE Section 404 Nationwide).
   - Please make sure to include which permits (if any) are required for the particular resource and what mitigation techniques will be used if impacts are to occur.

Example			
Impact Code	**Impact Type**	**Permits/ Mitigation Required?**	**Explanation of Impact to Resource**

1. Soil Suitability, Topographic and/or Geologic Constraints (example: soil slump, steep slopes, subsidence, seismic activity)			
☐ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☐ NA	Current Conditions: Click or tap here to enter text. Preferred Alternative Environmental Narrative: Click or tap here to enter text.

4. **Explanation of Impact to Resource:** In the final column, use the space provided on the Environmental Checklist to summarize the following information:
   - *Current Conditions*
     - Describe the current environmental resources of the affected area including the impact of no action. Your description of the current natural resources will provide a baseline to compare all alternatives and their associated environmental impacts.
   - *Preferred Alternative Environmental Narrative:*
     - Describe the impact of the preferred alternative or *indicate why there is no impact* from the project.
     - Identify any reasonable cumulative impacts that may result from implementing the preferred alternative. Cumulative impacts are the collective impacts on the environment when considered in conjunction with other past, present, and future actions related to the proposed project.
     - If a potentially adverse impact is identified for the preferred alternative, the applicant must provide the following:
       - An analysis of the severity, duration, extent, and frequency of the impact. Please specify and describe the following:
         - Severity: negligible, minor, or major.
         - Duration: short-term or long-term.
         - Extent: local, regional, or statewide.
         - Frequency: non-recurring or recurring.
       - An explanation of short- and/or long-term measures to mitigate the impact with a discussion on the effects of those mitigative measures on the proposed project.
     - Identify any required permits.

5. **Additional Information:** Underneath the table the following information must be provided:
   - Cultural Survey Acknowledgement
   - Sources of Information: Identify all sources consulted for the completion of the Environmental Checklist. Sources may include studies, plans, documents, or the persons, organizations, or agencies contacted for assistance.

Certain sections of this Environmental Checklist require specialized knowledge. Please contact the following agencies and underline attach comments provided by those agencies to your application. Below are contacts for certain sections that require additional review by other agencies:

   - *Physical Environment, Section #5 – **Surface Water Quality*** – Montana Department of Environmental Quality, (406) 444 - 3080.
   - *Physical Environment, Section #6 – **Floodplains and Floodplain Management*** – Contact the Local Floodplain Administrator for your County and/or Community

(http://dnrc.mt.gov/divisions/water/operations/floodplain-management/contacts/20210924FPAs2021.1.pdf) or visit the Department of Natural Resources Water Resources Division, (406) 444 – 0860, http://dnrc.mt.gov/divisions/water/operations/floodplain-management.

- *Physical Environment, Section #7 – **Wetlands** – U.S. Department of the Army Corps of Engineers, (406) 441 - 1375 or montana.reg@usace.army.mil.
- *Physical Environment, Section #9* – **Vegetation and Wildlife Species and Habitats** – Montana Fish, Wildlife and Parks, Wildlife Office (406) 444 - 2612 or find your Regional Office at https://fwp.mt.gov/aboutfwp/contact-us.
- *Physical Environment, Section #10* – **Unique, Endangered, Fragile or Limited Environmental Resources** – U.S. Fish and Wildlife Service for consultation on potential impacts to endangered or limited plants, fish, or other wildlife, (406) 449 - 5225.
- *Human Environment, Section #4* – **Historic Properties, Cultural or Archaeological Resources** – Montana State Historic Preservation Office (SHPO), (406) 444 - 7767 or dmurdo@mt.gov.

For assistance in preparing the Environmental Checklist, contact DNRC grant manager listed on grant application.

Environmental Checklist

Environmental Checklist Prepared by: On: 1/12/2023

Karrie Johnson	IMEG Corp
Name of Person 1 605-331-2505	Organization Karrie.L.Johnson@imegcorp.com
Phone Number	Email
Jeff Walla	Evergreen Water and Sewer District No. 1
Name of Person 2 406-257-5861	Organization jwalla@evergreenwaterdistrict.com
Phone Number	Email

Click or tap here to enter text.

List additional people above. Include organization, phone number and email for all.

Physical Environment			
Impact Code	**Impact Type**	**Permits/ Mitigation Required?**	**Explanation of Impact to Resource**
1. Soil Suitability, Topographic and/or Geologic Constraints (example: soil slump, steep slopes, subsidence, seismic activity)			
☐ No Impact ☐ Beneficial ☒ Adverse	☒ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☒ Mitigation ☐ NA	Current Conditions: Alluvial (Aa) soils are present which are poorly drained through the lift station property. Preferred Alternative Environmental Narrative: The new lift station will be constructed in previously undisturbed area.

2. Hazardous Facilities (example: power lines, hazardous waste sites, acceptable distance from explosive and flammable hazards including chemical/petrochemical storage tanks, underground fuel storage tanks, and related facilities such as natural gas storage facilities and propane storage tanks)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Current conditions do not have any hazardous facilities. <u>Preferred Alternative Environmental Narrative:</u> Not applicable to the project as no hazardous facilities within the action area.

3. Surrounding Air Quality (example: dust, odors, emissions)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> No air quality concerns. <u>Preferred Alternative Environmental Narrative:</u> No impact will occur, but the contractor will be responsible for dust control if needed.

4. Groundwater Resources and Aquifers (example: quantity, quality, distribution, depth to groundwater, sole source aquifers)

☐ No Impact ☒ Beneficial ☐ Adverse	☒ Direct ☒ Indirect ☒ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Created Pond and wetlands present. Groundwater is generally shallow and fluctuates seasonally. <u>Preferred Alternative Environmental Narrative:</u> Temporary dewatering will be required during construction of the wetwell. The new facilities will provide for redundant pumping and additional storage which will reduce the potential for future sewer spills.

5. Surface Water/Water Quality, Quantity and Distribution (example: streams, lakes, storm runoff, irrigation systems, canals)

☐ No Impact ☒ Beneficial ☐ Adverse	☐ Direct ☒ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> The proposed project is adjacent to a created pond and wetland area is hydraulically connected to the Flathead River. <u>Preferred Alternative Environmental Narrative:</u> The new facilities will provide for redundant pumping and additional storage which will reduce the potential for future sewer spills.

6. Floodplains and Floodplain Management (Identify any floodplains within one mile of the boundary of the project.)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> No flood plain present <u>Preferred Alternative Environmental Narrative:</u> No impact due to not being present.

7. Wetlands (Identify any wetlands within one mile of the boundary of the project and state potential impacts.)

☐ No Impact ☐ Beneficial ☒ Adverse	☒ Direct ☐ Indirect ☐ Cumulative	☒ Permit ☐ Mitigation ☐ NA	<u>Current Conditions:</u> Wetland and created pond present. <u>Preferred Alternative Environmental Narrative:</u> Fringes of wetland will be impacted minimally. Fill is necessary for the construction of the berm over the sanitary sewer line and side slopes. A PCN for a 404 permit will be completed as impacts are less than 0.1 acre.

8. Agricultural Lands, Production, and Farmland Protection (example: grazing, forestry, cropland, prime or unique agricultural lands) Identify any prime or important farm ground or forest lands within one mile of the boundary of the project.

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Located in area of agricultural lands and farmland of importance. Preferred Alternative Environmental Narrative: The construction for Lift Station 19 is within an undisturbed area yet no impacts to agricultural or farmland will occur.

9. Vegetation and Wildlife Species and Habitats, Including Fish (example: terrestrial, avian and aquatic life and habitats)

☒ No Impact ☒ Beneficial ☐ Adverse	☒ Direct ☒ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Aquatic vegetation and habitat are present due to the created pond and adjacent wetlands. Preferred Alternative Environmental Narrative: Minimal impact to the fringe of the wetland will occur. The temporary impact will be for lowering the pond during construction. The area will be returned to its natural conditions and the habitat will not be impacted.

10. Unique, Endangered, Fragile, or Limited Environmental Resources, Including Endangered Species (example: plants, fish or wildlife)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Generally, the area is known to have Bald Eagle and Osprey nests. Preferred Alternative Environmental Narrative: No impacts due to the construction would not impact the bald eagle or osprey habitat.

11. Unique Natural Features (example: geologic features)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: No additional natural features are present besides wetlands. Preferred Alternative Environmental Narrative: No impacts to unique natural features.

12. Access to, and Quality of, Recreational and Wilderness Activities, Public Lands and Waterways (including Federally Designated Wild & Scenic Rivers), and Public Open Space

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Natural water bodies, natural areas, fishing access sites are present within the area. Preferred Alternative Environmental Narrative: No impacts will occur from the new lift station.

Human Environment		
Impact Code	**Impact Type**	**Resource**

1. Visual Quality – Coherence, Diversity, Compatibility of Use and Scale, Aesthetics

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: An existing lift station is present in this location. Preferred Alternative Environmental Narrative: No impact will occur for visual quality as the addition of lift station is adjacent and in the same areas as the existing lift station.

2. Nuisances (example: glare, fumes)

			Current Conditions:
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐Permit ☐Mitigation ☒ NA	Project is in urban area. Preferred Alternative Environmental Narrative: Nuisances may occur during construction for standard construction activities. The contractor will be required to minimize these during construction.

3. Noise – Suitable Separation Between Housing and Other Noise Sensitive Activities and Major Noise Sources (example: aircraft, highways and railroads.)

			Current Conditions:
☐ No Impact ☐ Beneficial ☒ Adverse	☒ Direct ☐ Indirect ☐ Cumulative	☐Permit ☐Mitigation ☒ NA	Project is in urban area. Preferred Alternative Environmental Narrative: Construction noise will be present during daytime hours. Local ordinances will be followed.

4. Historic Properties, Cultural, and Archaeological Resources**(Please see end of Environmental Checklist for details if Cultural Survey has not been performed per SHPO Section 106)*

			Current Conditions:
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐Permit ☐Mitigation ☒ NA	Disturbed area from the existing lift station facility. Preferred Alternative Environmental Narrative: Cultural Resource Survey not completed as this is within a previously disturbed area.

5. Changes in Demographic (Population) Characteristics (example: quantity, distribution, density)

			Current Conditions:
☐ No Impact ☒ Beneficial ☐ Adverse	☐ Direct ☒ Indirect ☐ Cumulative	☐Permit ☐Mitigation ☒ NA	Lift station is located in an area of population growth. Preferred Alternative Environmental Narrative: No impacts will occur with the addition of the new lift station to an existing lift station in the same location. The improvements will allow potential opportunities for future housing for population growth.

6. General Housing Conditions – Quality, Quantity, Affordability

			Current Conditions:
☐ No Impact ☒ Beneficial ☐ Adverse	☐ Direct ☒ Indirect ☐ Cumulative	☐Permit ☐Mitigation ☒ NA	Urban housing is present within the area. Preferred Alternative Environmental Narrative: No impacts to housing conditions. Additional lift station could provide additional capacity for future housing.

7. Businesses or Residents (example: loss of, displacement, or relocation)

			Current Conditions:
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐Permit ☐Mitigation ☒ NA	Urban area with businesses and housing. Preferred Alternative Environmental Narrative: No changes in the use of the surrounding site.

8. Public Health and Safety

			Current Conditions:
☐ No Impact ☒ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☒ Cumulative	☐Permit ☐Mitigation ☒ NA	No concerns to public health and safety. Preferred Alternative Environmental Narrative: Lift Station 19 will provide additional storage which will be beneficial to reducing the possibility of sewage spills.

9. Local Employment – Quantity or Distribution of Employment, Economic Impact

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Employment present in the area for businesses. Preferred Alternative Environmental Narrative: With the improvements for the lift station could provide a temporary benefit the area providing additional employment.

10. Income Patterns – Economic Impact

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Urban area that is restricted with growth opportunities. Preferred Alternative Environmental Narrative: Income patterns will not be impacted.

11. Local and State Tax Base and Revenues

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Urban area restricted with growth opportunities. Preferred Alternative Environmental Narrative: Improvements to the lift station will service the existing area. No additional local and state tax base and revenues will be impacted.

12. Community and Government Services and Facilities (example: educational facilities; health and medical services and facilities; police; emergency medical services; and parks, playgrounds and open space)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Urban area restricted with growth opportunities. Preferred Alternative Environmental Narrative: No change so there will be no impact.

13. Commercial and Industrial Facilities – Production and Activity, Growth or Decline

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Urban area in need of an additional lift station. Preferred Alternative Environmental Narrative: Improvements are to support the existing facilities.

14. Social Structures and Mores (example: standards of social conduct/social conventions)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Lift station does not immediately have an effect on social structures and mores. Preferred Alternative Environmental Narrative: No impacts and no change to existing social structures and mores.

15. Land Use Compatibility (example: growth, land use change, development activity, adjacent land uses and potential conflicts)

☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Urban area is restricted with growth opportunities. Preferred Alternative Environmental Narrative: Lift station improvements will not change the land use compatibility.

16. Energy Resources – Consumption and Conservation

☐ No Impact ☒ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	Current Conditions: Lift station limits the high flows. Preferred Alternative Environmental Narrative: Additional lift station and updates to the existing lift station utilize more efficient equipment.

17. Solid Waste Management			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Local management present. <u>Preferred Alternative Environmental Narrative:</u> No change in management of solid waste.

18. Wastewater Treatment – Sewage System			
☐ No Impact ☒ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Lift station present for the local area. <u>Preferred Alternative Environmental Narrative:</u> Improvements by the addition of a lift station will utilize new equipment, be more efficient, increase the capacity and provide more storage.

19. Storm Water – Surface Drainage			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Flows regulated through the existing system. <u>Preferred Alternative Environmental Narrative:</u> No impacts to the storm water surface drainage for the improvements to the lift station.

20. Community Water Supply			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Water sources provided privately. <u>Preferred Alternative Environmental Narrative:</u> No impacts. Conditions will remain the same.

21. Fire Protection – Hazards			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Local Fire Department provides services. <u>Preferred Alternative Environmental Narrative:</u> No impacts will occur from the addition of a lift station.

22. Cultural Facilities, Cultural Uniqueness and Diversity			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> No direct cultural facilities or cultural uniqueness present within the lift station project area. <u>Preferred Alternative Environmental Narrative:</u> No immediate effect as there is none present within the project limits.

23. Transportation Networks and Traffic Flow Conflicts (example: rail; auto including local traffic; airport runway clear zones – avoidance of incompatible land use in airport runway clear zones)			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Not located on major transportation networks. <u>Preferred Alternative Environmental Narrative:</u> No impacts to major roads. During construction, standards will be implemented to minimize impact from construction traffic.

24. Consistency with Local Ordinances, Resolutions, or Plans (example: conformance with local comprehensive plans, zoning, or capital improvement plans.)			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Current lift station follows existing local ordinances, resolutions and plans. <u>Preferred Alternative Environmental Narrative:</u> Additional lift station will remain following these same standards.

25. Private Property Rights (example: a regulatory action or project activity that reduces, minimizes, or eliminates the use of private property.)			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Existing facilities are situated on District property. <u>Preferred Alternative Environmental Narrative:</u> Additional land will be acquired in fee for new lift station. A mutually beneficial easement will be recorded for accessing the force main.
26. Environmental Justice (example: does the project avoid placing lower income households in areas where environmental degradation has occurred, such as adjacent to brownfield sites?)			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> Existing lift station does not impact housing area. <u>Preferred Alternative Environmental Narrative:</u> No impact.
27. Lead Based Paint and/or Asbestos (example: does the project replace asbestos-lined pipes? Do any structures qualify as containing lead-based paint?)			
☒ No Impact ☐ Beneficial ☐ Adverse	☐ Direct ☐ Indirect ☐ Cumulative	☐ Permit ☐ Mitigation ☒ NA	<u>Current Conditions:</u> No lead based paint or asbestos in existing facilities. <u>Preferred Alternative Environmental Narrative:</u> Not present

Additional Information

**If no cultural survey has been performed, or is not expected to be needed, applicant must agree to the following statement:

☒   I hereby agree that, to my knowledge, there are no cultural or paleontological materials in the proposed project site. If previously unknown cultural or paleontological materials are identified during project related activities, the DNRC grant manager will be notified, and all work will cease until a professional assessment of such resources can be made.

List all sources of information used to complete the Environmental Checklist. Sources may include studies, plans, documents, or the individuals, organizations, or agencies contacted for assistance. For individuals, groups, or agencies, please include a contact person and phone number. List any scoping documents or meetings and/or public meetings during project development.

Click or tap here to enter text.

<u>Below is a list of electronic resources available for data gathering to aid in the development of the Environmental Checklist:</u>

Abandoned Mines (DEQ): https://deq.mt.gov/cleanupandrec/Programs/aml

Agricultural Statistics (USDA): USDA - National Agricultural Statistics Service - Data and Statistics

Air Quality

- Nonattainment Areas: Plan and Rule Development | Montana DEQ (mt.gov)

- Opening Burning Guidelines: Open Burning | Montana DEQ (mt.gov)

Army Corps of Engineers: http://www.usace.army.mil/Home.aspx

Bureau of Business and Economic Research, UM: http://www.bber.umt.edu/

Cadastral (for property ownership info): http://svc.mt.gov/msl/mtcadastral

Census Information, MT Dept. of Commerce: http://ceic.mt.gov

Conservation Districts, MT: http://macdnet.org/

Cultural Records

- Montana Historical Society: https://mhs.mt.gov/Shpo/CulturalRecords

DEQ data search tools: Montana DEQ's GIS Portal (mt.gov)

- Including Clean Water Act Info Center, Hazardous Waste Handlers, Petroleum Release Fund Claims, Unpermitted Releases, Underground Storage Tanks, Source Water Protection

EPA Enforcement and Compliance History Online http://echo.epa.gov/

Farmland Classification: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Fish (Also See Wildlife)

- Montana Fisheries Information System: Montana Fish, Wildlife & Parks GIS Data (arcgis.com)

- Aquatic Invasive Species: Montana FWP AIS Surveys Dashboard 2021 (arcgis.com)

Floodplain Maps, FEMA: https://msc.fema.gov/portal

Geographic Information, Natural Resources Information System: http://nris.mt.gov/gis

Geologic Information - MBMG - Publications - Download Geologic Maps (mtech.edu)

Maps of Montana for species observations, land cover, wetland and riparian areas, land management: Montana Natural Heritage Program (mtnhp.org); http://mtnhp.org/mapviewer/?t=6

Montana Department of Transportation: https://www.mdt.mt.gov/

- Environmental Manual: http://www.mdt.mt.gov/publications/docs/manuals/env/preface.pdf
- Environmental Manual - Chapter 29, Permits Required: https://www.mdt.mt.gov/publications/docs/manuals/env/Chapter%2029%20PERMITS%20REQUIRED.pdf

Montana Board of Oil and Gas Conservation Information System:

- http://bogc.dnrc.mt.gov/webApps/DataMiner/

Plants

- Plant database, USDA Natural Resources Conservation Service: http://plants.usda.gov/java

- Plant Species, MT Field Guide: http://fieldguide.mt.gov/default.aspx

- Plant Species of Concern: http://mtnhp.org/SpeciesOfConcern/Default.aspx?AorP=p

- Threatened, Endangered and Rare Plants, USDA: https://plants.usda.gov/home/raritySearch

Soils

- USDA Natural Resource Conservation Service database: https://websoilsurvey.nrcs.usda.gov/app/

- Montana soil and water conservation districts: http://swcdmi.org/

State Historic Preservation Office: http://mhs.mt.gov/Shpo

Tourism, UM – Institute of Tourism & Recreation Research: http://www.itrr.umt.edu

Tribal Resources:

- Blackfeet Tribal Environmental Permits: http://www.blackfeetenvironmental.com

- CSKT Natural Resources Department: http://nrd.csktribes.org/

- Montana Office of Indian Affairs: http://tribalnations.mt.gov/

- Tribal Historic Preservation Officer List: Search - NATHPO

- Tribal Directory Assessment Tool (TDAT): https://egis.hud.gov/tdat/

Vehicle Traffic Count (MDT): http://www.mdt.mt.gov/publications/datastats/traffic.shtml

Water

- Stream Record Extension Facilitator, USGS: USGS | National Water Dashboard

- Streamstats basin characteristics, USGS: http://water.usgs.gov/osw/streamstats/

- Water Resources Division, DNRC: http://dnrc.mt.gov/divisions/water ; ArcGIS Web Application (mt.gov)

- Water Rights Bureau, DNRC: http://dnrc.mt.gov/divisions/water/water-rights

- Water Right Query System, DNRC: DNRC Water Right Query System (mt.gov)

- Wetlands database, USFWS: http://www.fws.gov/wetlands/Data/mapper.html

Wild and Scenic Rivers: http://www.rivers.gov/montana.php

Wildlife

- Animal Species, MT Field Guide: http://fieldguide.mt.gov/default.aspx

- Animal Species of Concern: http://mtnhp.org/SpeciesOfConcern/Default.aspx?AorP=a

- Aquatic Invasive Species: Montana FWP AIS Surveys Dashboard 2021 (arcgis.com)

- Critical Habitat Mapper, USFWS: http://ecos.fws.gov/crithab/

- Crucial Areas Planning System/Habitat Assessment Tool: Habitat MT (HB 526) Funded Lands (arcgis.com)

- FWP Contact Map: http://fwp.mt.gov/gis/maps/contactUs/ (includes biologist responsibility areas)

- Maps and GIS Data, FWP: Montana Fish, Wildlife & Parks GIS Data (arcgis.com)

- Sage grouse management, FWP: [Montana Fish, Wildlife & Parks GIS Data : Sage-grouse Habitat/Current Distribution (Montana) : Sage-grouse Habitat/Current Distribution (Montana) (arcgis.com)](arcgis.com)

- Sage grouse habitat conservation program, DNRC: http://sagegrouse.mt.gov/

- Sage grouse habitat map: https://sagegrouse.mt.gov/ProgramMap