

## APPENDIX A. DOCUMENTED CATEX

Airport sponsors may use this form for projects eligible for a categorical exclusion (CATEX) that have greater potential for extraordinary circumstances or that otherwise require additional documentation, as described in the FAA Order 1050.1 (current version) and FAA Order 5050.4B (collectively, FAA Environmental Orders).

To request a CATEX determination from the FAA, the sponsor should review potentially affected environmental resources, review the requirements of the applicable special purpose laws, and consult with the Airports District Office or Regional Airports Division Office staff about the type of information needed. The form and supporting documentation should be completed in accordance with the provisions of FAA Order 5050.4B, paragraph 302b, and submitted to the appropriate FAA Airports District/Division Office. The CATEX cannot be approved until all information and documentation is received and all requirements have been fulfilled.

Name of Airport, LOC ID, and location

Billings Logan International Airport (BIL), Billings, MT

Project Title

2026 Taxilane and Hangar Development

Give a brief, but complete description of the proposed project, including all project components, justification, estimated start date, and duration of the project. Include connected actions necessary to implement the proposed project (including but not limited to moving NAVAIDs, change in flight procedures, haul routes, new material or expanded material sources, staging or disposal areas). Attach a sketch or plan of the proposed project. Photos can also be helpful.

The project consists of constructing a new taxilane in the southwest portion of the airport. The airport has a high demand for hangar lease space, and the last hangar area was developed in 2025. The space for larger hangars is limited. This project would add a taxilane for approximately 6 lease spaces for future hangars. The hangars will range in size from 80'x80' to 100'x100' serving B-II aircraft. The current land use is existing pavement, perimeter fence, and compacted millings, all of which will need to be removed to construct the taxilane. An existing access road crosses the location of the proposed taxilane and existing utilities that will be maintained. The access road will be reconstructed and delineated with new pavement markings. The project will involve the installation of a new security fence prior to the start of the project to ensure airport security to be met at all times. Stormwater infrastructure would also be required to meet the drainage demands of a new taxilane and future hangars.

The project will not require any changes in flight procedures or the moving of NAVAIDs. Construction and staging areas will be on airport property. Construction traffic will enter through Gate 24 off Overlook Drive, with the staging area in the adjacent millings pad within the project site inside the secured area. The area has been previously disturbed with either utilities, paving, or hangar construction. All disturbed areas following construction will be seeded.

Estimated Start Date: June or July 2026

Project Duration: 45 days

Give a brief, but complete, description of the proposed project area. Include any unique or natural features within or surrounding airport property.

The proposed project will be located on airport property. BIL is located on the north side of the city, approximately two miles from the downtown area. Billings is in Yellowstone County in east central Montana. The airport sits atop Yellowstone County's Rimrocks that overlook the City of Billings. Nearby terrain is varied and slopes steeply downward in all directions except to the west. The soils are mostly sandstone rock or silty sand. The proposed project area has previously been disturbed with existing pavement, fence, and compacted millings.

Identify the appropriate CATEX paragraph(s) from the current version of Order 1050.1 or 5050.4B (Tables 6-1 and 6-2) that apply to the project. Describe if the project differs in any way from the specific language of the CATEX or examples given as described in the Order.

Order 1050.1F, Section 5-6.4, Paragraph a: Access Road Construction

Order 1050.1F, Section 5-6.4, Paragraph e: Taxiway Construction

Order 1050.1F, Section 5-6.4, Paragraph l: Land grading

The circumstances FAA must consider when documenting a CATEX are listed below along with each of the impact categories related to the circumstance. Use FAA Environmental Orders and the Desk Reference for Airports Actions, as well as other guidance documents to assist you in determining what information needs to be provided about these impact categories to address potential impacts. Keep in mind that FAA must analyze both construction and operational impacts. Indicate whether or not there would be any effects under the particular impact category and, **if needed**, cite available references to support these conclusions. Additional analyses and inventories can be attached or cited as needed.

**5-2.b(1) National Historic Preservation Act (NHPA) resources**

**YES NO**

<p>Are there historic/cultural resources listed (or eligible for listing) on the National Register of Historic Places located in the Area of Potential Effect? If yes, provide a record of the historic/cultural resources located therein and check with your local Airports Division/District Office to determine if a Section 106 finding is required.</p> <p>A cultural resource inventory was conducted at BIL in February 2015 by Blain Fandrich of Ethnoscience, Inc. The cultural resource documented that “the AOA, where the proposed construction activity will occur, is completely disturbed by previously construction and land leveling activity dating back to the late 1920s. Prior disturbance activity within the AOA includes bulldozing, grading, and hauling in dirt and trash onto the site to level ground and fill drainages. Thus, there is no potential for intact cultural deposits within the AOA.” Although a final determination has not yet been made or recommended to the State Historical Preservation Office (SHPO), the draft CRI does not recommend the Airport as a whole, as eligible for listing as a Historic District in the National Register of Historical Places (NRHP) however, the Airport does have 10 historic properties consisting of 25 buildings, structures and objects which are recorded as separate sites within the Airport. The project area is not a part of those identified sites and does not include or impact any identified historic or cultural resources.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Does the project have the potential to cause effects? If yes, describe the nature and extent of the effects.</p> <p>No effects have been identified as being associated with the proposed project activities.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Is the project area undisturbed? If not, provide information on the prior disturbance (including type and depth of disturbance, if available)</p> <p>The site features an existing access road, parking lot, fence, and millings pad. The pavement sections all range about 1 foot in depth. The site has numerous buried utilities, active and abandoned. Water is approximately 6.5 feet deep and the sewer is 6 to 10 feet deep. The other utilities are approximately 3 feet below the surface.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the project impact tribal land or land of interest to tribes? If yes, describe the nature and extent of the effects and provide information on the tribe affected. Consultation with their THPO or a tribal representative along with the SHPO may be required.</p> <p>The project is located on previously disturbed land on airport property. Consultation with Tribal Historic Preservation Officer (THPO) should be conducted by the FAA if it is required. There have been no indications of tribal interest based on historical projects on the airport.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2.b(2) Department of Transportation Act Section 4(f) and 6(f) resources**

	YES	NO
<p>Are there any properties protected under Section 4(f) (as defined by FAA Order 1050.1) in or near the project area? This includes publicly owned parks, recreation areas, and wildlife or waterfowl refuges of national, state or local significance or land from a historic site of national, state or local significance.</p> <p>All work will be completed on airport property with no 4(f) resources. The project will not affect 4(f) resources off the airport, as it has no effect on flight numbers or patterns.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will project construction or operation physically or constructively “use” any Section 4(f) resource? If yes, describe the nature and extent of the use/impacts, and why there are no prudent and feasible alternatives. See 5050.4B Desk Reference Chapter 7.</p> <p>All work will be completed on airport property with no 4(f) resources. The project is construction with sitework improvements that will not affect 4(f) resources off the airport, as it has no effect on flight numbers or patterns.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

YES NO

<p>Will the project affect any recreational or park land purchased with Section 6(f) Land and Water Conservation Funds? If so, please explain, if there will be impacts to those properties.</p> <p>The project is situated on previously disturbed land owned by the airport. No Section 6(f) property will be converted to non-recreational purposes with the implementation of the proposed project activities.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**5-2.b(3) Threatened or Endangered Species**

YES NO

<p>Are there any federal or state listed endangered, threatened, or candidate species or designated critical habitat in or near the project area? This includes species protected by individual statute, such as the Bald Eagle.</p> <p>Included as a resource is the Natural Heritage Program (MTNHP) Environmental Summary retrieved on 11/19/25 for the project area. This is attached at the end of the CATEX report. There are many species listed in the summary as species of concern, but no species listed for the Billings Airport property area listed as endangered, threatened, or candidate species. The project area is mowed and inspected monthly. There have not been signs of species habitats within the project site.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Does the project affect or have the potential to affect, directly or indirectly, any federal or state-listed, threatened, endangered or candidate species, or designated habitat under the Endangered Species Act? If yes, Section 7 consultation between the FAA and the US Fish &amp; Wildlife Service, National Marine Fisheries Service, and the appropriate state agency will be necessary. Provide a description of the impacts and how impacts will be avoided, minimized, or mitigated. Provide the Biological Assessment and Biological Opinion, if required.</p> <p>The project will have no impact on any endangered or threatened species or their habitat. The Airport’s wildlife biologist is familiar with the project area and has not noted any endangered or threatened species in this area. The MTNHP Environmental Summary does not show any endangered or threatened species within the airport property.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Does the project have the potential to take birds protected by the Migratory Bird Treaty Act? Describe steps to avoid, minimize, or mitigate impacts (such as timing windows determined in consultation with the US Fish &amp; Wildlife Service).</p> <p>The proposed project does not have the potential to take birds protected by the Migratory Bird Treaty Act. No habitat or nest structures have been located on the project site. The Airport’s wildlife biologist is familiar with the project area, and all airport maintenance staff are on the lookout for bird sightings or habitats during routine inspection and mowing.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2.b (4) Other Resources**

Items to consider include:

<b>a. Fish and Wildlife Coordination Act</b>	<b>YES</b>	<b>NO</b>
<p>Does the project area contain resources protected by the Fish and Wildlife Coordination Act? If yes, describe any impacts and steps taken to avoid, minimize or mitigate impacts.</p> <p>16 U.S.C. 661-666e was reviewed for this project to investigate and report on any actions that affect any stream or other body of water. The proposed does not impact any stream or other bodies of water. The project will add a small amount of impervious area where stormwater will flow to Pond E to the north end of airport property and into Alkali Creek. The airport has a stormwater permit and follows the City of Billings and FAA stormwater requirements. DEQ no longer requires sampling of the ponds due to the low amount of glycol use. The airport still samples discharge flowing into Alkali Creek in the spring following the winter glycol use and the spring test has been within DEQ limits. This project will not have a negative impact on Alkali Creek.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b. Wetlands and Other Waters of the U.S.</b>	<b>YES</b>	<b>NO</b>
<p>Are there any wetlands or other waters of the U.S. in or near the project area?</p> <p>The project area is not in or near any wetlands or other waters of the U.S. The Airport is located on a sandstone plateau 300 to 400 feet above the nearest water source of Alkali Creek. The MTNHP Environmental Summary shows all wetlands off airport property near Alkali Creek. Alkali Creek is 1.4 miles to the northeast of the project site.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Has wetland delineation been completed within the proposed project area? If yes, please provide U.S. Army Corps of Engineers (USACE) correspondence and jurisdictional determination. If delineation was not completed, was a field check done to confirm the presence/absence of wetlands or other waters of the U.S.? If no to both, please explain what methods were used to determine the presence/absence of wetlands.</p> <p>A field check was performed, and no wetlands were observed in connection with the proposed project area. We do not observe indications of hydric soil, hydric vegetation, or connection to surface water hydrology. The stormwater infrastructure helps alleviate all surface water near active aviation and the project sits on silty sandstone. The area is natural grass that helps with FOD and dust.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



If wetlands are present, will the project result in impacts, directly or indirectly (including tree clearing)? Describe any steps taken to avoid, minimize or mitigate the impact.

No wetlands were observed in connection with the proposed project area; therefore, no direct impacts will be a result of the project. There is one tree on the site, see photo above. Prior to removal, the tree will be inspected for any nests and removed early spring, late fall or winter. The tree will not be removed under the taxiway project, but will be removed for the future hangar development.

<p>Is a USACE Clean Water Act Section 404 permit required? If yes, does the project fall within the parameters of a general permit? If so, which general permit?</p> <p>There are no wetlands or waterways in the proposed project area. No USACE Clean Water Section 404 permit will be required for the proposed project.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>c. Floodplains</b></p>	<p><b>YES</b></p>	<p><b>NO</b></p>
<p>Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if applicable and any documentation.</p> <p>According to FEMA flood hazard map 30111C1270E (November 6, 2013) indicated that no floodplains will be encroached upon or otherwise impacted by the proposed project. The project is located in zone X and outside the floodplain as shown on the FEMA FIRM map in Figure 3.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>d. Coastal Resources</b>	<b>YES</b>	<b>NO</b>
<p>Will the project occur in or impact a coastal zone as defined by the State’s Coastal Zone Management Plan? If yes, discuss the project’s consistency with the State’s CZMP. Attach the consistency determination if applicable.</p> <p>No impacts relating to coastal barriers, coastal zone management, or coral reefs are anticipated from airport development for any of the proposed development alternatives due that these resources are not present. According to the U.S. Fish &amp; Wildlife Service Coastal Barrier Resources Act website, the states of Montana, Idaho, and Wyoming are not identified as having any lands included in the Coastal Barriers Resources Act system. The National Oceanic and Atmospheric Administration Ocean &amp; Coastal Resource Management website notes that the states of Montana, Idaho, and Wyoming do not participate in the Coastal Zone Management Program.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the project occur in or impact the Coastal Barrier Resource System as defined by the US Fish and Wildlife Service?</p> <p>The Airport is located in Montana, which has no coastal areas.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e. National Marine Sanctuaries</b>	<b>YES</b>	<b>NO</b>
<p>Is a National Marine Sanctuary located in the project area? If yes, discuss the potential for the project to impact that resource.</p> <p>The Airport is located in Montana, which has no coastal areas.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>f. Wilderness Areas</b>	<b>YES</b>	<b>NO</b>
<p>Is a Wilderness Area located in the project area? If yes, discuss the potential for the project to impact that resource.</p> <p>No. The Absaroka Beartooth Wilderness is located more than 60 miles away, and the UL Bend Wilderness is more than 120 miles away from the proposed project location.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>g. Farmland</b>	<b>YES</b>	<b>NO</b>
<p>Is there prime, unique, state or locally important farmland in/near the project area? Describe any significant impacts from the project.</p> <p>All work will be on airport property. No prime, unique, state, or locally important farmland is located on or near the Airport that will be impacted by this project. See attached Figure 5.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<p>Does the project include the acquisition and conversion of farmland? If farmland will be converted, describe coordination with the US Natural Resources Conservation and attach the completed Form AD-1006.</p> <p>This project does not include the acquisition and conversion of farmland. See attached Figure 5.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>h. Energy Supply and Natural Resources</b></p>	<p><b>YES</b></p>	<p><b>NO</b></p>
<p>Will the project change energy requirements or use consumable natural resources either during construction or operations?</p> <p>No.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<p>Will the project change aircraft/vehicle traffic patterns that could alter fuel usage either during construction or operations?</p> <p>This project is located adjacent to a private apron and a self-service fueling station. During certain phases of the project, operations in and out of the apron and fueling station will have to be altered slightly for construction. Vehicle traffic will also have to detour around the site during construction as the proposed construction crosses the existing access road.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><b>i. Wild and Scenic Rivers</b></p>	<p><b>YES</b></p>	<p><b>NO</b></p>
<p>Is there a river on the Nationwide Rivers Inventory, a designated river in the National System, or river under State jurisdiction (including study or eligible segments) near the project?</p> <p>There are no rivers in the Nationwide Rivers Inventory in Yellowstone County. Yellowstone River, which is not near the project site but approximately 3.5 miles from the Airport is the closest river. The project will not impact this river.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the project directly or indirectly affect the river or an area within ¼ mile of its ordinary high water mark?</p> <p>This project is 3.5 miles from the Yellowstone River and will have no impact.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>j. Solid Waste Management</b></p>	<p><b>YES</b></p>	<p><b>NO</b></p>
<p>Does the project (either the construction activity or the completed, operational facility) have the potential to generate significant levels of solid waste? If so, discuss how these will be managed.</p> <p>Construction activities are not expected to generate significant levels of solid waste. Most of the project will involve excavation, and the resulting material will remain on airport property and be used as fill material for future development. Other waste will be disposed of per DEQ requirements or the contractor will keep the material for their use.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2.b(5) Disruption of an Established Community**

	<p><b>YES</b></p>	<p><b>NO</b></p>
<p>Will the project disrupt a community, planned development or be inconsistent with plans or goals of the community?</p> <p>This project will be constructed the summer of 2026 with a scheduled Blue Angle Air Show August 20-22, 2026. The taxiway will have to be paved prior to August 17 to keep aviation activity open for use during the airshow. This will be written into the construction safety and phasing plan.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<p>Are residents or businesses being relocated as part of the project?</p> <p>No residents or businesses are located on Airport property where the project is located.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**5-2.b(6) Surface Transportation**

**YES      NO**

<p>Will the project cause a significant increase in surface traffic congestion or cause a degradation of level of service provided?</p> <p>The project entrance is off Highway 3 with good access and level of service. This project will have truck entering signs and the traffic will handle the increase during construction. Most construction trucks use Highway 3 to get from the west end of the material plants to the center or east end of Billings. We have not noticed increase congestion due to construction at the airport throughout the past 10 years with the construction of round a bouts and Highway 3 upgrades (additional lanes and wider shoulders).</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<p>Will the project require a permanent road relocation or closure? If yes, describe the nature and extent of the relocation or closure and indicate if coordination with the agency responsible for the road and emergency services has occurred.</p> <p>No road relocations or closures will be required.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**5-2.b(7) Noise**

	YES	NO
<p>Will the project result in an increase in aircraft operations, nighttime operations, or change aircraft fleet mix?</p> <p>The project will not increase aircraft operations, nighttime operations, nor change fleet mix characteristics.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the project cause a change in airfield configuration, runway use, or flight patterns either during construction or after the project is implemented?</p> <p>The project will not change flight patterns or runway use during or after construction.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Does the forecast exceed 90,000 annual propeller operations, 700 annual jet operations or 10 daily helicopter operations or a combination of the above? If yes, a noise analysis may be required if the project would result in a change in operations.</p> <p>This project will not result in a change in operations.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Has a noise analysis been conducted, including but not limited to generated noise contours, a specific point analysis, area equivalent method analysis, or other screening method. If yes, provide that documentation.</p> <p>A noise contour map is included as Figure 4. This was conducted by Peat Marwick in April 1985.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Could the project have a significant impact (DNL 1.5 dB or greater increase) on noise levels over noise sensitive areas within the 65+ DNL noise contour?</p> <p>The project location is currently in Zone 2 with DNL 65-70. This project will not change flight patterns and change existing noise levels.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2.b(8) Air Quality**

	YES	NO
<p>Is the project located in a Clean Air Act non-attainment or maintenance area?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<p>If yes, is it listed as exempt, presumed to conform or will emissions (including construction emissions) from the project be below <i>de minimis</i> levels (provide the paragraph citation for the exemption or presumed to conform list below, if applicable) Is the project accounted for in the State Implementation Plan or specifically exempted? Attach documentation.</p> <p>Billings is a state-regulated community for air quality. According to the Montana Department of Environmental (DEQ) website (<a href="https://deq.mt.gov/Air/Programs/panandrule">https://deq.mt.gov/Air/Programs/panandrule</a>) for carbon monoxide, Billings is listed as attainment/unclassified. Billings also has attainment for sulfur dioxide and is listed as SIP Call. The SIP Call actions under Federal Clean Air Act Authority Section 110(k)(5). These are not nonattainment areas.</p> <p>Thus, the proposed project area is not located in an Air Quality Nonattainment zone.</p> <p>Air quality effects anticipated with this project may be temporary dust generated in the immediate area of construction. The contractor would be responsible for dust control throughout the duration of the proposed project to mitigate temporary impacts.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<p>Does the project have the potential to increase landside or airside capacity, including an increase of surface vehicles?</p> <p>This project has the potential to increase capacity landside and airside with the new taxilane and hangar development.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Could the project impact air quality or violate local, State, Tribal or Federal air quality standards under the Clean Air Act Amendments of 1990 either during construction or operations?</p> <p>The proposed project activities are unlikely to impact air quality within the project area outside of temporary dust generated in the immediate area of construction. The direct effects to air quality from the proposed project to the Billings community or Yellowstone County would be minimal as there would be no significant atmospheric emissions because of the finished project.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2.b (9) Water Quality**

	YES	NO
<p>Are there water resources within or near the project area? These include groundwater, surface water (lakes, rivers, etc.), sole source aquifers and public water supply. If yes, provide a description of the resource, including the location (distance from project site, etc.).</p> <p>The proposed project will not impact groundwater. Ground water is greater than 100 feet deep and has not been hit drilling or during construction on a project to date. According to the Environmental Protection Agency (EPA) Region 8 Sole Source Aquifer Program, the Missoula Valley Aquifer is the only Sole Source Aquifer in the State of Montana. The proposed project area does not overlay the Missoula Sole Source Aquifer and will have no effect.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the project impact any of the identified water resources either during construction or operations? Describe any steps that will be taken to protect water resources during and after construction.</p> <p>No impacts to water resources have been identified as being associated with proposed project activities.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the project increase the amount or rate of stormwater runoff either during construction or operations? Describe any steps that will be taken to ensure it will not impact water quality.</p> <p>The project has the potential to increase runoff during construction and it will increase runoff after construction.</p> <p>Construction operations will require a general permit for storm water discharge associated with construction activities. During the development of the SWPPP Best Management Practices will be identified and implemented prior to the initiation of construction activities.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<p>Does the project have the potential to violate federal, state, tribal or local water quality standards established under the Clean Water and Safe Drinking Water Acts?</p> <p>No impacts to water quality have been identified as being associated with proposed project activities or stormwater at BIL.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Are any water quality related permits required? If yes, list the appropriate permits.</p> <p>The Contractor will be required to follow a Storm Water Pollution Prevention Plan and fall under the Airport’s SWPPP. No other permits regarding water quality are anticipated.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**5-2.b(10) Highly Controversial on Environmental Grounds**

	YES	NO
<p>Is the project highly controversial? The term “highly controversial” means a substantial dispute exists as to the size, nature, or effect of a proposed federal action. The effects of an action are considered highly controversial when reasonable disagreement exists over the project’s risks of causing environmental harm. Mere opposition to a project is not sufficient to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement exists regarding the effects of a proposed action.</p> <p>No controversy has been identified as being associated with the proposed project. No opposition to the proposed project has been identified.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2.b(11) Inconsistent with Federal, State, Tribal or Local Law**

	YES	NO
<p>Will the project be inconsistent with plans, goals, policy, zoning, or local controls that have been adopted for the area in which the airport is located?</p> <p>The Airport property is annexed into the City of Billings and is within the Billings Planning Jurisdiction area for buildings. Airports and customary accessory uses required for their operation are permitted uses under the City. The underlying zoning does not present obstacles to the general functioning of the Airport and specifically to the construction of the proposed project. The proposed project is consistent with the plans of the 2009 Masterplan and is on the current signed ALP.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Is the project incompatible with surrounding land uses?</p> <p>The proposed project will take place on airport property and will contribute to the local community plans and goals. There are no issues with the surrounding land use.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2 .b (12) Light Emissions, Visual Effects, and Hazardous Materials**

<b>a. Light Emissions and Visual Effects</b>	YES	NO
<p>Will the proposed project produce light emission impacts?</p> <p>The hangar project could add some parking lot and apron lighting connected to the buildings. This is a commercial development area north of Highway 3. The added lights will not impact residential areas, historic sites, or wildlife habitats.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<p>Will there be visual or aesthetic impacts as a result of the proposed project or have there been concerns expressed about visual/aesthetic impacts?</p> <p>This project is constructing a taxilane adjacent to existing taxilanes in an existing hangar development on all sides. It will not change the area visually or have any new aesthetic impacts.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<b>b. Hazardous Materials</b>	<b>YES</b>	<b>NO</b>
<p>Does the project involve or affect hazardous materials?</p> <p>Jet fuel, 100LL fuel and ethylene glycol deicing agents have historically been and are currently delivered, stored for, and placed in or on aircraft at the Airport. The Airport has a current Storm Water Permit that addresses all the industrial activity and Best Management Practices (BMP) that would remain. The Airport has established BMPs to ensure that fuel and deicing agents are properly dispersed, stored, and that necessary mitigation measures remain in place to address potential spills. The proposed project would not cause the Airport to become unable to meet applicable local, state or federal regulations pertaining to hazardous materials, pollution prevention, and solid waste impacts. This project will not change the storage of materials as described above.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will construction take place in an area that contains or previously contained hazardous materials?</p> <p>A search of the DEQ website reveals no hazardous materials or sites (reference: <a href="http://deq.mt.gov/rem">http://deq.mt.gov/rem</a>). The project area has never contained hazardous materials.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If the project involves land acquisition, is there a potential for this land to contain hazardous materials or contaminants?</p> <p>This project does not involve land acquisition.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Will the proposed project produce hazardous or solid waste either during construction or after? If yes, how will the additional waste be handled?</p> <p>The project will not produce hazardous and/or solid waste. Typical construction wastes will be disposed of at the City of Billings landfill. Most of the construction waste on this project will be unclassified excavation (remain on airport property for future projects). The small quantity of materials is not expected to result in quantities beyond the capacity of those facilities.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**5-2 .b (13) Public Involvement**

	<b>YES</b>	<b>NO</b>
<p>Was there any public notification or involvement? If yes, provide documentation.</p> <p>The project has been publicly discussed at Airport meetings with airlines that include all tenants at the airport. The land use plan in the ALP and the Master Plan from 2009 show the areas covered in this project as aviation development. No comments have been received on this project during those open public meetings.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Permits**

List any permits required for the proposed project which have not been previously discussed.

Provide details on the status of permits.

Required permits will be noted in the specifications as being part of the Contractor's responsibility to obtain, which include a Construction Storm Water Pollution Prevention Program Permit.

**Environmental Commitments**

List all measures and commitments made to avoid, minimize, mitigate, and compensate for impacts on the environment, which are needed for this project to qualify for a CATEX.

Construction operations will be completed during day time hours and will implement best management practices in the required work.

**Preparer Information**

<b>Point of Contact</b>	Heather Mosser, P.E.				
<b>Address</b>	315 N. 25 <sup>th</sup> Street, Suite 102				
<b>City</b>	Billings	<b>State</b>	MT	<b>Zip Code</b>	59101
<b>Phone</b>	406-237-1239		<b>Email Address</b>	hmosser@m-m.net	

Signature Heather Mosser Date 11.26.25

**Airport Sponsor Information and Certification** (may not be delegated to consultant)

Provide contact information for the designated sponsor point of contact and any other individuals requiring notification of the FAA decision.

<b>Point of Contact</b>	Paul Khera				
<b>Address</b>	Billings Logan International Airport, 1901 Terminal Circle, Room 2016				
<b>City</b>	Billings	<b>State</b>	MT	<b>Zip Code</b>	59101
<b>Phone Number</b>	406-657-8339		<b>Email Address</b>	KheraP@billingsmt.gov	
<b>Additional Name(s)</b>			<b>Additional Email Address(es)</b>		

I certify that the information I have provided above is, to the best of my knowledge, correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed project(s) until FAA issues a final environmental decision for the proposed project(s) and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) has occurred.

Signed by: Paul Khera  
 Signature 7B79E1DBA4004C6... Date 11/25/2025

**FAA Decision**

Having reviewed the above information, it is the FAA’s decision that the proposed project (s) or development warrants environmental processing as indicated below.

Name of Airport, LOC ID, and location Billings Logan International Airport (BIL), Billings, MT

Project Title 2026 Taxilane and Hangar Development

No further NEPA review required. Project is categorically excluded per applicable FAA Order 1050.1 (current version) and CATEX that applies).  
(cite Order 1050.1G, B-2.4(a) Access Road Construction, B-2.4(e) Taxilane Construction, B-2.4(l) Land grading.

An Environmental Assessment (EA) is required.

An Environmental Impact Statement (EIS) is required.

The following additional documentation is necessary for FAA to perform a complete environmental evaluation of the proposed project.

Name: Heidy Bruner, P.E.  
Responsible FAA Official

Title Environmental Protection Specialist

Signature HEIDY SUE BRUNER  
 Digitally signed by HEIDY SUE BRUNER  
Date: 2025.12.03 11:13:34 -07'00'

Date December 3, 2025

ATTACHMENT A  
ENVIRONMENTAL SUMMARY



# MONTANA STATE LIBRARY

NATURAL HERITAGE PROGRAM [mtnhp.mt.gov](http://mtnhp.mt.gov)

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Latitude	Longitude
45.78410	-108.52700
45.82748	-108.59107

Summarized by:  
**001N025E025**  
(Buffered PLSS Section)



### Suggested Citation

Montana Natural Heritage Program. Environmental Summary Report.  
for Latitude 45.78410 to 45.82748 and Longitude -108.52700 to -108.59107. Retrieved on 11/19/2025.

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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## 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.**

Legend			
<b>Model Icons</b>	<b>Habitat Icons</b>	<b>Range Icons</b>	<b>Num Obs</b>
Suitable (native range)	Common	Native / Year-round	Count of obs with 'good precision' (<=1000m)
Optimal Suitability	Occasional	Summer	+ indicates additional 'poor precision' obs (1001m-10,000m)
Moderate Suitability		Winter	
Low Suitability		Migratory	
Suitable (introduced range)		Non-native	
		Historical	



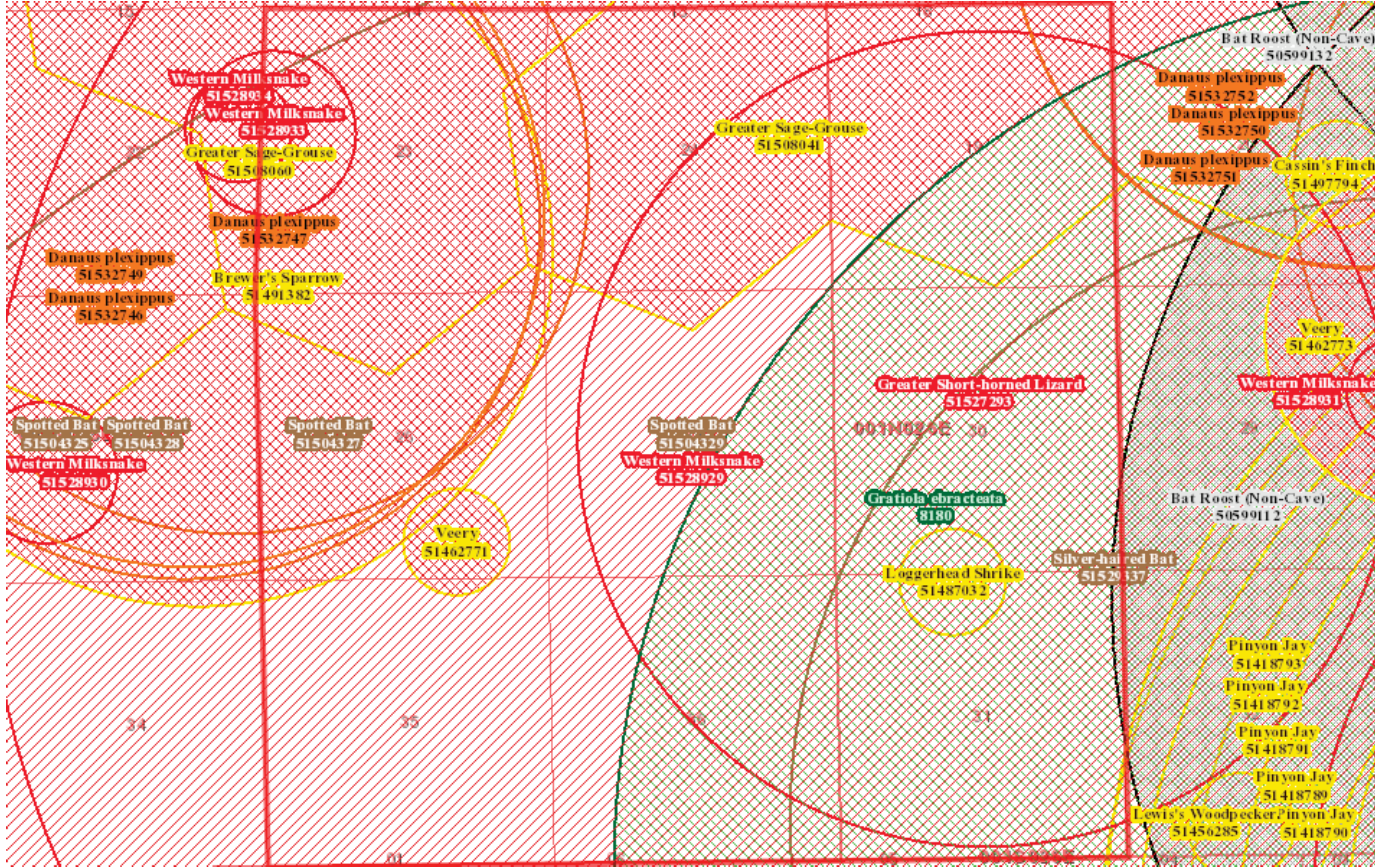
Latitude 45.78410 Longitude -108.52700  
 45.82748 -108.59107

## Native Species

Summarized by: **001N025E025 (Buffered PLSS Section)**

Filtered by:

**Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC**



## Species Occurrences

Species	USFWS Sec7	# SO	# Obs	Predicted Model	Range
<b>R - Western Milksnake (<i>Lampropeltis gentilis</i>) SOC</b>		3	2		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S2</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Delineation Criteria</b> Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 300 meters in order to encompass the maximum summer home range size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Sep 23, 2025) <b>Predicted Models:</b> 100% Optimal (inductive)					
<b>I - Danaus plexippus (Monarch) SOC</b>		6			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S2S3</b> USFWS: <b>P</b> USFS: <b>Sensitive - Migratory in Forests (BD, BRT, KOOT)</b> FWP SWAP: <b>SGCN</b> <b>Delineation Criteria</b> Confirmed breeding area based on the presence of a resident animal of any age/stage. Point observation location is buffered by a minimum distance of 2,000 meters in order to encompass documented travel distances of some butterfly species as well as adjacent habitat likely to support other individuals and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 24, 2025) <b>Predicted Models:</b> 67% Optimal (inductive),  31% Moderate (inductive),  2% Low (inductive)					
<b>M - Spotted Bat (<i>Euderma maculatum</i>) PSOC</b>		4			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S4</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGIN</b> <b>Predicted Models:</b> 62% Optimal (inductive),  26% Moderate (inductive),  12% Low (inductive)					
<b>B - Pinyon Jay (<i>Gymnorhinus cyanocephalus</i>) SOC</b>		2	2		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G3</b> State: <b>S3</b> USFWS: <b>MBTA; BCC10; BCC17</b> FWP SWAP: <b>SGCN</b> <b>Delineation Criteria</b> Observations with evidence of breeding activity buffered by a minimum distance of 4,500 meters in order to be conservative about encompassing the home ranges reported for flocks and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Sep 25, 2024) <b>Predicted Models:</b> 64% Moderate (inductive),  36% Low (inductive)					

<b>B - Veery</b> ( <i>Catharus fuscescens</i> ) <b>SOC</b>	1   1
<p> <a href="#">View in Field Guide</a>   <a href="#">View Predicted Models</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G5</b>   State: <b>S3B</b>   USFWS: <b>MBTA</b>   BLM: <b>SENSITIVE</b>   FWP SWAP: <b>SGCN</b>   PIF: <b>2</b>  <b>Delineation Criteria</b> 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 5,000 meters. (Last Updated: Dec 20, 2024)  <b>Predicted Models:</b>  10% Moderate (inductive),  90% Low (inductive) </p>	
<b>R - Greater Short-horned Lizard</b> ( <i>Phrynosoma hernandesi</i> ) <b>SOC</b>	1
<p> <a href="#">View in Field Guide</a>   <a href="#">View Predicted Models</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G5</b>   State: <b>S3</b>   BLM: <b>SENSITIVE</b>   FWP SWAP: <b>SGCN</b>  <b>Delineation Criteria</b> Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 300 meters in order to encompass habitats supporting other individuals and documented distances moved between summer and winter habitats. Otherwise the point observation is buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Sep 23, 2025)  <b>Predicted Models:</b>  98% Low (inductive) </p>	
<b>B - Loggerhead Shrike</b> ( <i>Lanius ludovicianus</i> ) <b>SOC</b>	1   1
<p> <a href="#">View in Field Guide</a>   <a href="#">View Predicted Models</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G4</b>   State: <b>S3B</b>   USFWS: <b>MBTA</b>   BLM: <b>SENSITIVE</b>   FWP SWAP: <b>SGCN</b>   PIF: <b>2</b>  <b>Delineation Criteria</b> Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 300 meters in order to encompass the maximum breeding territory size reported for the species in Alberta and Idaho and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Dec 26, 2024)  <b>Predicted Models:</b>  62% Low (inductive) </p>	
<b>M - Silver-haired Bat</b> ( <i>Lasionycteris noctivagans</i> ) <b>SOC</b>	1
<p> <a href="#">View in Field Guide</a>   <a href="#">View Predicted Models</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G4</b>   State: <b>S3</b>   FWP SWAP: <b>SGCN</b>  <b>Delineation Criteria</b> 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 and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Sep 24, 2025)  <b>Predicted Models:</b>  48% Low (inductive) </p>	
<b>B - Brewer's Sparrow</b> ( <i>Spizella breweri</i> ) <b>SOC</b>	1
<p> <a href="#">View in Field Guide</a>   <a href="#">View Predicted Models</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G5</b>   State: <b>S3B</b>   USFWS: <b>MBTA</b>   BLM: <b>SENSITIVE</b>   FWP SWAP: <b>SGCN</b>   PIF: <b>2</b>  <b>Delineation Criteria</b> 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 100 meters in order to encompass the maximum territory size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Dec 26, 2024)  <b>Predicted Models:</b>  23% Low (inductive) </p>	
<b>B - Greater Sage-Grouse</b> ( <i>Centrocercus urophasianus</i> ) <b>SOC</b>	2
<p> <a href="#">View in Field Guide</a>   <a href="#">View Predicted Models</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G3</b>   State: <b>S2</b>   USFS: <b>Sensitive - Known in Forests (BD)</b>   BLM: <b>SENSITIVE</b>   FWP SWAP: <b>SGCN</b>   PIF: <b>1</b>  <b>Delineation Criteria</b> Confirmed breeding area based on the presence of a nest, chicks, juveniles, or adults on a lek. Point observations are mapped in the center of a one-square mile hexagon to protect the exact locations of leks. The outer edges of this hexagon are then buffered by a distance of 6,400 meters in order to encompass a body of research indicating that females typically nest within this distance of a lek and that lek numbers are negatively impacted by fossil fuel drilling activities within this distance of a lek. If the locational uncertainty associated with the observation is greater than 5,000 meters, the observation is not valid for creation of a species occurrence. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: Jan 10, 2025)  <b>Predicted Models:</b>  13% Low (inductive) </p>	
<b>V - Gratiola ebracteata</b> ( <i>Bractless Hedge-hyssop</i> ) <b>SOC</b>	1       Not Assessed
<p> <a href="#">View in Field Guide</a>   <a href="#">View Range Maps</a>  <b>Species of Concern - Native Species</b>   Global: <b>G4</b>   State: <b>S2</b>   Plant Threat Score: <b>No Known Threats</b>   CCVI: <b>Moderately Vulnerable</b>  <b>Delineation Criteria</b> Individual occurrences are generally based upon a discretely mapped area provided by an observer and are not separated by any pre-defined distance. Individual clusters of plants mapped at fine spatial scales (separated by less than approximately 25-50 meters) may be grouped together into one occurrence if they are not separated by distinct areas of habitat or terrain features. Point observations are buffered to encompass any locational uncertainty associated with the observation. (Last Updated: Apr 26, 2018) </p>	
<b>O - Bat Roost (Non-Cave)</b> ( <i>Bat Roost (Non-Cave)</i> ) <b>IAH</b>	1       Not Assessed
<p> <a href="#">View in Field Guide</a>  <b>Important Animal Habitat - Native Species</b>   Global: <b>GNR</b>   State: <b>SNR</b>  <b>Delineation Criteria</b> 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 Townsend'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 5,000 meters. (Last Updated: Oct 22, 2019) </p>	

Legend			
<b>Model Icons</b>	<b>Habitat Icons</b>	<b>Range Icons</b>	<b>Num Obs</b>
Suitable (native range)	Common	Native / Year-round	Count of obs with 'good precision' (<=1000m)
Optimal Suitability	Occasional	Summer	+ indicates additional 'poor precision' obs (1001m-10,000m)
Moderate Suitability		Winter	
Low Suitability		Migratory	
Suitable (introduced range)		Non-native	
		Historical	



Latitude 45.78410 Longitude -108.52700  
 45.82748 -108.59107

## Native Species

Summarized by: **001N025E025 (Buffered PLSS Section)**

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>B - Yellow-billed Cuckoo</b> ( <i>Coccyzus americanus</i> ) <b>SOC</b>		1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>PS; LT; MBTA</b> BLM: <b>THREATENED</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> Predicted Models:  67% Optimal (inductive),  33% Moderate (inductive)				
<b>B - Broad-tailed Hummingbird</b> ( <i>Selasphorus platycercus</i> ) <b>PSOC</b>		2		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA; BCC10</b> Predicted Models:  67% Optimal (inductive),  11% Moderate (inductive),  20% Low (inductive)				
<b>B - Ovenbird</b> ( <i>Seiurus aurocapilla</i> ) <b>PSOC</b>		1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA</b> PIF: <b>3</b> Predicted Models:  41% Optimal (inductive),  12% Moderate (inductive),  24% Low (inductive)				
<b>B - Eastern Screech-Owl</b> ( <i>Megascops asio</i> ) <b>PSOC</b>		29		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  25% Optimal (inductive),  43% Moderate (inductive),  21% Low (inductive)				
<b>B - American White Pelican</b> ( <i>Pelecanus erythrorhynchos</i> ) <b>SOC</b>		4		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3B</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  67% Moderate (inductive),  33% Low (inductive)				
<b>B - Evening Grosbeak</b> ( <i>Coccothraustes vespertinus</i> ) <b>SOC</b>		1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> USFWS: <b>MBTA; BCC10</b> FWP SWAP: <b>SGCN</b> Predicted Models:  67% Moderate (inductive),  21% Low (inductive)				
<b>B - Rufous Hummingbird</b> ( <i>Selasphorus rufus</i> ) <b>PSOC</b>		6		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S4B</b> USFWS: <b>MBTA; BCC10</b> FWP SWAP: <b>SGIN</b> PIF: <b>3</b> Predicted Models:  52% Moderate (inductive),  46% Low (inductive)				
<b>B - Lewis's Woodpecker</b> ( <i>Melanerpes lewis</i> ) <b>SOC</b>		1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S2B</b> USFWS: <b>MBTA; BCC10; BCC17</b> USFS: <b>Species of Conservation Concern in Forests (HLC)</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> Predicted Models:  12% Moderate (inductive),  28% Low (inductive)				
<b>B - Bald Eagle</b> ( <i>Haliaeetus leucocephalus</i> ) <b>SSS</b>		11		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Special Status Species - Native Species</b> Global: <b>G5</b> State: <b>S4</b> USFWS: <b>BGEPA; MBTA</b> USFS: <b>Sensitive - Known in Forests (LOLO)</b> BLM: <b>SENSITIVE</b> PIF: <b>2</b> Predicted Models:  10% Moderate (inductive),  29% Low (inductive)				
<b>B - Chimney Swift</b> ( <i>Chaetura pelagica</i> ) <b>PSOC</b>		20		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G4G5</b> State: <b>S3S4B</b> USFWS: <b>MBTA; BCC11</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  5% Moderate (inductive),  43% Low (inductive)				
<b>B - Common Poorwill</b> ( <i>Phalaenoptilus nuttallii</i> ) <b>PSOC</b>		5		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGIN</b> PIF: <b>3</b> Predicted Models:  99% Low (inductive)				
<b>B - Cassin's Finch</b> ( <i>Haemorhous cassinii</i> ) <b>SOC</b>		3		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> USFWS: <b>MBTA; BCC10</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  98% Low (inductive)				

<input type="checkbox"/> <b>B - Long-billed Curlew</b> ( <i>Numenius americanus</i> ) <b>SOC</b>	1				
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3B</b> USFWS: <b>MBTA; BCC11</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> Predicted Models:  80% Low (inductive)					
<input type="checkbox"/> <b>B - Great Blue Heron</b> ( <i>Ardea herodias</i> ) <b>SOC</b>	4				
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> Predicted Models:  77% Low (inductive)					
<input type="checkbox"/> <b>B - Sage Thrasher</b> ( <i>Oreoscoptes montanus</i> ) <b>SOC</b>	1				
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3B</b> USFWS: <b>MBTA</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  44% Low (inductive)					
<input type="checkbox"/> <b>A - Great Plains Toad</b> ( <i>Anaxyrus cognatus</i> ) <b>SOC</b>	1				
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> Predicted Models:  32% Low (inductive)					
<input type="checkbox"/> <b>B - Golden Eagle</b> ( <i>Aquila chrysaetos</i> ) <b>SOC</b>	1				
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> USFWS: <b>BGEPa; MBTA</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> Predicted Models:  23% Low (inductive)					
<input type="checkbox"/> <b>B - Black-necked Stilt</b> ( <i>Himantopus mexicanus</i> ) <b>SOC</b>	1				
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  1% Low (inductive)					
<input type="checkbox"/> <b>B - Brown Creeper</b> ( <i>Certhia americana</i> ) <b>SOC</b>	7		Not Assessed		
<a href="#">View in Field Guide</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> PIF: <b>1</b>					
<input type="checkbox"/> <b>B - Ferruginous Hawk</b> ( <i>Buteo regalis</i> ) <b>SOC</b>	2		Not Assessed		
<a href="#">View in Field Guide</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3B</b> USFWS: <b>MBTA; BCC17</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b>					
<input type="checkbox"/> <b>B - Franklin's Gull</b> ( <i>Leucophaeus pipixcan</i> ) <b>SOC</b>	1		Not Assessed		
<a href="#">View in Field Guide</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>MBTA; BCC10; BCC11; BCC17</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b>					
<input type="checkbox"/> <b>B - Tennessee Warbler</b> ( <i>Leiothlypis peregrina</i> ) <b>PSOC</b>	4		Not Assessed		
<a href="#">View in Field Guide</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4B</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b>					

Legend			
<b>Model Icons</b>	<b>Habitat Icons</b>	<b>Range Icons</b>	<b>Num Obs</b>
Suitable (native range)	Common	Native / Year-round	Count of obs with 'good precision' (<=1000m)
Optimal Suitability	Occasional	Summer	+ indicates additional 'poor precision' obs (1001m-10,000m)
Moderate Suitability		Winter	
Low Suitability		Migratory	
Suitable (introduced range)		Non-native	
		Historical	



Latitude 45.78410 Longitude -108.52700  
 45.82748 -108.59107

## Native Species

Summarized by: **001N025E025 (Buffered PLSS Section)**

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
<b>M - Western Spotted Skunk</b> ( <i>Spilogale gracilis</i> ) <b>PSOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>SU</b> FWP SWAP: <b>SGIN</b> Predicted Models:  42% Optimal (inductive),  58% Moderate (inductive)			
<b>R - Plains Hog-nosed Snake</b> ( <i>Heterodon nasicus</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S2</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> Predicted Models:  36% Optimal (inductive),  31% Moderate (inductive),  31% Low (inductive)			
<b>B - Black-billed Cuckoo</b> ( <i>Coccyzus erythrophthalmus</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>MBTA; BCC11; BCC17</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> Predicted Models:  31% Optimal (inductive),  21% Moderate (inductive),  45% Low (inductive)			
<b>B - Plumbeous Vireo</b> ( <i>Vireo plumbeus</i> ) <b>PSOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4B</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> Predicted Models:  19% Optimal (inductive),  79% Moderate (inductive),  2% Low (inductive)			
<b>B - Dickcissel</b> ( <i>Spiza americana</i> ) <b>PSOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA</b> Predicted Models:  11% Optimal (inductive),  42% Moderate (inductive),  25% Low (inductive)			
<b>R - Snapping Turtle</b> ( <i>Chelydra serpentina</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native/Non-native Species - (depends on location or taxa)</b> Global: <b>G4G5</b> State: <b>S3</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> Predicted Models:  10% Optimal (inductive),  17% Moderate (inductive),  69% Low (inductive)			
<b>M - Merriam's Shrew</b> ( <i>Sorex merriami</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3</b> FWP SWAP: <b>SGCN</b> Predicted Models:  100% Moderate (inductive)			
<b>I - Oreohelix strigosa berryi</b> ( <i>Berry's Mountainsnail</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5T2</b> State: <b>S1S2</b> Predicted Models:  71% Moderate (inductive),  17% Low (inductive)			
<b>M - North American Porcupine</b> ( <i>Erethizon dorsatum</i> ) <b>PSOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4</b> FWP SWAP: <b>SGCN</b> Predicted Models:  67% Moderate (inductive),  33% Low (inductive)			
<b>I - Bombus suckleyi</b> ( <i>Suckley's Cuckoo Bumble Bee</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G2G3</b> State: <b>S1</b> USFWS: <b>P</b> FWP SWAP: <b>SGCN</b> Predicted Models:  67% Moderate (inductive),  33% Low (inductive)			
<b>M - Pallid Bat</b> ( <i>Antrozous pallidus</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> Predicted Models:  47% Moderate (inductive),  31% Low (inductive)			
<b>M - Long-legged Myotis</b> ( <i>Myotis volans</i> ) <b>SOC</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4G5</b> State: <b>S3</b> FWP SWAP: <b>SGCN</b> Predicted Models:  42% Moderate (inductive),  58% Low (inductive)			

<input type="checkbox"/>	<b>M - Eastern Red Bat</b> ( <i>Lasiurus borealis</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G3G4</b> State: <b>S3B</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 37% Moderate (inductive),  51% Low (inductive)		
<input type="checkbox"/>	<b>V - Potentilla plattensis</b> ( <i>Platte Cinquefoil</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3</b> Plant Threat Score: <b>No Known Threats</b> CCVI: <b>Highly Vulnerable</b> <b>Predicted Models:</b> 27% Moderate (inductive),  40% Low (inductive)		
<input type="checkbox"/>	<b>M - Prairie Shrew</b> ( <i>Sorex haydeni</i> ) <b>PSOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 22% Moderate (inductive),  65% Low (inductive)		
<input type="checkbox"/>	<b>V - Eupatorium maculatum</b> ( <i>Spotted Joepy-weed</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S1S2</b> Plant Threat Score: <b>No Known Threats</b> CCVI: <b>Moderately Vulnerable</b> <b>Predicted Models:</b> 21% Moderate (inductive),  70% Low (inductive)		
<input type="checkbox"/>	<b>B - Green-tailed Towhee</b> ( <i>Pipilo chlorurus</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN</b> PIF: <b>3</b> <b>Predicted Models:</b> 15% Moderate (inductive),  49% Low (inductive)		
<input type="checkbox"/>	<b>B - Hooded Merganser</b> ( <i>Lophodytes cucullatus</i> ) <b>PSOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4</b> USFWS: <b>MBTA</b> PIF: <b>2</b> <b>Predicted Models:</b> 13% Moderate (inductive)		
<input type="checkbox"/>	<b>B - White-faced Ibis</b> ( <i>Plegadis chihi</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>MBTA</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> <b>Predicted Models:</b> 12% Moderate (inductive),  50% Low (inductive)		
<input type="checkbox"/>	<b>M - Northern Hoary Bat</b> ( <i>Lasiurus cinereus</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G3G4</b> State: <b>S3B</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 10% Moderate (inductive),  64% Low (inductive)		
<input type="checkbox"/>	<b>M - Townsend's Big-eared Bat</b> ( <i>Corynorhinus townsendii</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3</b> USFS: <b>Sensitive - Known in Forests (LOLO)</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 10% Moderate (inductive),  59% Low (inductive)		
<input type="checkbox"/>	<b>V - Physaria brassicoides</b> ( <i>Double Bladderpod</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> Plant Threat Score: <b>No Known Threats</b> <b>Predicted Models:</b> 10% Moderate (inductive),  54% Low (inductive)		
<input type="checkbox"/>	<b>M - Long-eared Myotis</b> ( <i>Myotis evotis</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 10% Moderate (inductive),  38% Low (inductive)		
<input type="checkbox"/>	<b>M - Black-tailed Prairie Dog</b> ( <i>Cynomys ludovicianus</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 2% Moderate (inductive),  98% Low (inductive)		
<input type="checkbox"/>	<b>B - Sharp-tailed Grouse</b> ( <i>Tympanuchus phasianellus</i> ) <b>SOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> <b>Predicted Models:</b> 100% Low (inductive)		
<input type="checkbox"/>	<b>B - Eastern Bluebird</b> ( <i>Sialia sialis</i> ) <b>PSOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA</b> <b>Predicted Models:</b> 77% Low (inductive)		
<input type="checkbox"/>	<b>B - Black-and-white Warbler</b> ( <i>Mniotilta varia</i> ) <b>PSOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA</b> <b>Predicted Models:</b> 67% Low (inductive)		
<input type="checkbox"/>	<b>B - Cassin's Kingbird</b> ( <i>Tyrannus vociferans</i> ) <b>PSOC</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4B</b> USFWS: <b>MBTA</b> <b>Predicted Models:</b> 65% Low (inductive)		

<b>B - Barrow's Goldeneye</b> ( <i>Bucephala islandica</i> ) <b>PSOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4</b> USFWS: <b>MBTA</b> PIF: <b>2</b> <b>Predicted Models:</b> 55% Low (inductive)
<b>M - Dwarf Shrew</b> ( <i>Sorex nanus</i> ) <b>PSOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S2S3</b> FWP SWAP: <b>SGIN</b> <b>Predicted Models:</b> 48% Low (inductive)
<b>M - Little Brown Myotis</b> ( <i>Myotis lucifugus</i> ) <b>SOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G3G4</b> State: <b>S2S3</b> USFS: <b>Sensitive - Known in Forests (BD, BRT, KOOT)</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 48% Low (inductive)
<b>V - Cypripedium parviflorum</b> ( <i>Small Yellow Lady's-slipper</i> ) <b>PSOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4</b> USFS: <b>Sensitive - Known in Forests (LOLO)</b> <b>Species of Conservation Concern in Forests (CG, HLC)</b> <b>Predicted Models:</b> 41% Low (inductive)
<b>B - Red-headed Woodpecker</b> ( <i>Melanerpes erythrocephalus</i> ) <b>SOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3B</b> USFWS: <b>MBTA; BCC11; BCC17</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>2</b> <b>Predicted Models:</b> 38% Low (inductive)
<b>M - Fringed Myotis</b> ( <i>Myotis thysanodes</i> ) <b>SOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G4</b> State: <b>S3</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 33% Low (inductive)
<b>B - Short-eared Owl</b> ( <i>Asio flammeus</i> ) <b>PSOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Potential Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S4</b> USFWS: <b>MBTA; BCC11; BCC17</b> FWP SWAP: <b>SGIN</b> PIF: <b>3</b> <b>Predicted Models:</b> 26% Low (inductive)
<b>V - Mimulus floribundus</b> ( <i>Floriferous Monkeyflower</i> ) <b>SOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>SH</b> Plant Threat Score: <b>No Known Threats</b> CCVI: <b>Highly Vulnerable</b> <b>Predicted Models:</b> 23% Low (inductive)
<b>A - Northern Leopard Frog</b> ( <i>Lithobates pipiens</i> ) <b>SOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G5</b> State: <b>S3S4</b> USFS: <b>Sensitive - Suspected in Forests (KOOT, LOLO)</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> <b>Predicted Models:</b> 20% Low (inductive)
<b>B - Sprague's Pipit</b> ( <i>Anthus spragueii</i> ) <b>SOC</b>	<a href="#">View in Field Guide</a> <a href="#">View Range Maps</a> <b>Species of Concern - Native Species</b> Global: <b>G3G4</b> State: <b>S3B</b> USFWS: <b>MBTA; BCC11; BCC17</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN</b> PIF: <b>1</b>

## Structured Surveys

Summarized by: **001N025E025** (*Buffered PLSS Section*)

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

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

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

<b>B-Chimney Swift</b> ( <i>Chimney Swift Survey</i> )	Survey Count: 3	Obs Count:	Recent Survey: 2017
<b>E-Noxious Weed, Road-based</b> ( <i>Noxious Weed Road-based Visual Surveys</i> )	Survey Count: 5	Obs Count: 5	Recent Survey: 2003
<b>F-Fish Trapping/Netting</b> ( <i>Fish Trapping or Netting Surveys</i> )	Survey Count: 1	Obs Count: 5	Recent Survey: 2006
<b>I-Light Traps</b> ( <i>Light Trapping for Nocturnal Insects</i> )	Survey Count: 2	Obs Count: 3	Recent Survey: 2022

## Land Cover

Summarized by: **001N025E025** (Buffered PLSS Section)



### Human Land Use Developed

#### Low Intensity Residential

18% (1,062 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.

No Image

### Human Land Use Developed

#### Commercial / Industrial

18% (1,038 Acres)

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

No Image

### Human Land Use Developed

#### Other Roads

16% (916 Acres)

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



### Shrubland, Steppe and Savanna Systems Sagebrush Steppe

#### Big Sagebrush Steppe

10% (550 Acres)

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



## Grassland Systems Lowland/Prairie Grassland

### Great Plains Mixedgrass Prairie

8% (477 Acres)

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



## Grassland Systems Lowland/Prairie Grassland

### Great Plains Sand Prairie

8% (433 Acres)

The sand prairies constitute a very unique system within the western Great Plains. The unifying and controlling feature for this system is that coarse-textured soils predominate and the dominant grasses are well-adapted to this condition. In the northwestern portion of the system's range, stand size corresponds to the area of exposed caprock sandstone, and small patches predominate, but larger patches are found embedded in the encompassing Great Plains Mixed Grass Prairie, and usually occupy higher positions in local landscapes where former caprock formations have eroded into more subdued and planar topography. In most of eastern Montana, substrates supporting this system have weathered in place from sandstone caprock. Soils can be relatively thin or deep due to varying amounts of downslope movement of weathered sands. Needle and thread (*Hesperostipa comata*) is the dominant grass species. Other frequent species include little bluestem (*Schizachyrium scoparium*), often occurring with threadleaf sedge (*Carex filifolia*) and dominating both sandy sites and actively eroding sites. Prairie sandreed (*Calamovilfa longifolia*), sand bluestem (*Andropogon hallii*) and big bluestem (*Andropogon gerardii*) are sporadically distributed and found generally on the coarsest-textured sands. Other graminoids include bluebunch wheatgrass (*Pseudoroegneria spicata*), sun sedge (*Carex inops* ssp. *heliophila*), and purple threeawn (*Aristida purpurea*). Characteristic forbs differ by occurrence, but species of scurf pea (*Psoraleidum* species) and Indian breadroot (*Pediomelum*) species are common. Communities of silver sage (*Artemisia cana* ssp. *cana*) or skunkbush sumac (*Rhus trilobata*) can occur within this system. Wind erosion, fire and grazing constitute the other major dynamic processes that can influence this system.



## Human Land Use Agriculture

### Cultivated Crops

7% (395 Acres)

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.



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

### Great Plains Ponderosa Pine Woodland and Savanna

5% (310 Acres)

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



## Human Land Use Developed

### Developed, Open Space

4% (220 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

### High Intensity Residential

4% (213 Acres)

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.

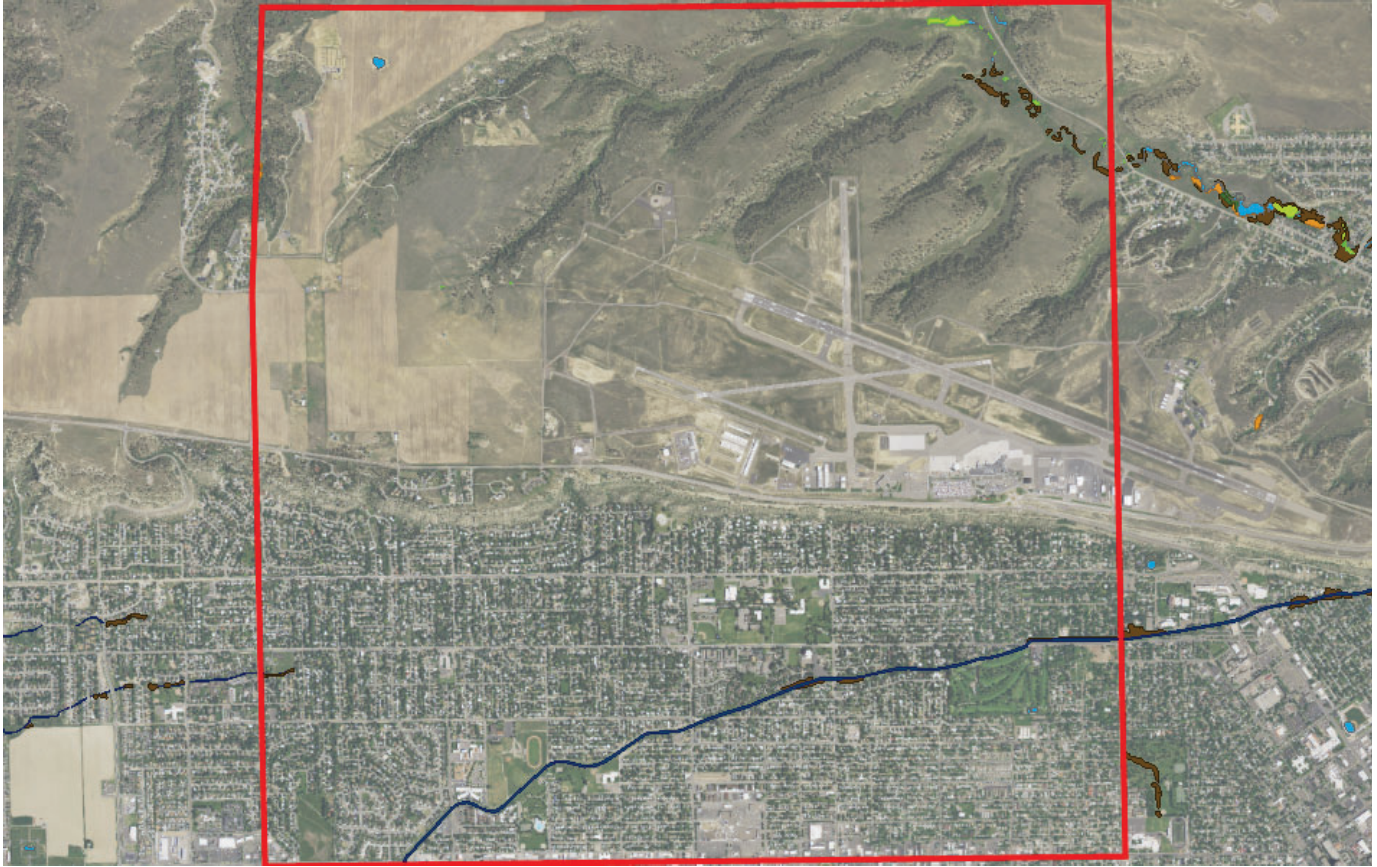
## Additional Limited Land Cover

- 1% (69 Acres) [Great Plains Riparian](#)
- 1% (33 Acres) [Major Roads](#)
- <1% (21 Acres) [Great Plains Badlands](#)
- <1% (15 Acres) [Burned Sagebrush](#)
- <1% (15 Acres) [Recently burned forest](#)
- <1% (6 Acres) [Open Water](#)
- <1% (2 Acres) [Great Plains Wooded Draw and Ravine](#)
- <1% (2 Acres) [Recently burned shrubland](#)
- <1% (1 Acres) [Introduced Upland Vegetation - Annual and Biennial Forbland](#)

<1% (0 Acres) ■ [Great Plains Floodplain](#)

## Wetland and Riparian

Summarized by: **001N025E025** (Buffered PLSS Section)



### Wetland and Riparian Mapping

#### P - Palustrine

<span style="color: blue;">■</span> AB - Aquatic Bed	
F - Semipermanently Flooded	1 Acres
(no modifier)	<1 Acres <b>PABF</b>
h - Diked/Impounded	1 Acres <b>PABFh</b>
x - Excavated	<1 Acres <b>PABFx</b>
K - Artificially Flooded	<1 Acres
x - Excavated	<1 Acres <b>PABKx</b>

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

<span style="color: blue;">■</span> US - Unconsolidated Shore	
C - Seasonally Flooded	1 Acres
(no modifier)	1 Acres <b>PUSC</b>

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

<span style="color: green;">■</span> EM - Emergent	
A - Temporarily Flooded	1 Acres
(no modifier)	1 Acres <b>PEMA</b>
C - Seasonally Flooded	1 Acres
(no modifier)	1 Acres <b>PEMC</b>

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

#### R - Riverine (Rivers)

##### 2 - Lower Perennial

<span style="color: darkblue;">■</span> UB - Unconsolidated Bottom	
F - Semipermanently Flooded	13 Acres
x - Excavated	13 Acres <b>R2UBFx</b>

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

##### 4 - Intermittent

<span style="color: darkblue;">■</span> SB - Stream Bed	
C - Seasonally Flooded	<1 Acres
x - Excavated	<1 Acres <b>R4SBCx</b>

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

#### Rp - Riparian

**1 - Lotic**

■ SS - Scrub-Shrub  
(no modifier)

**<1 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.*

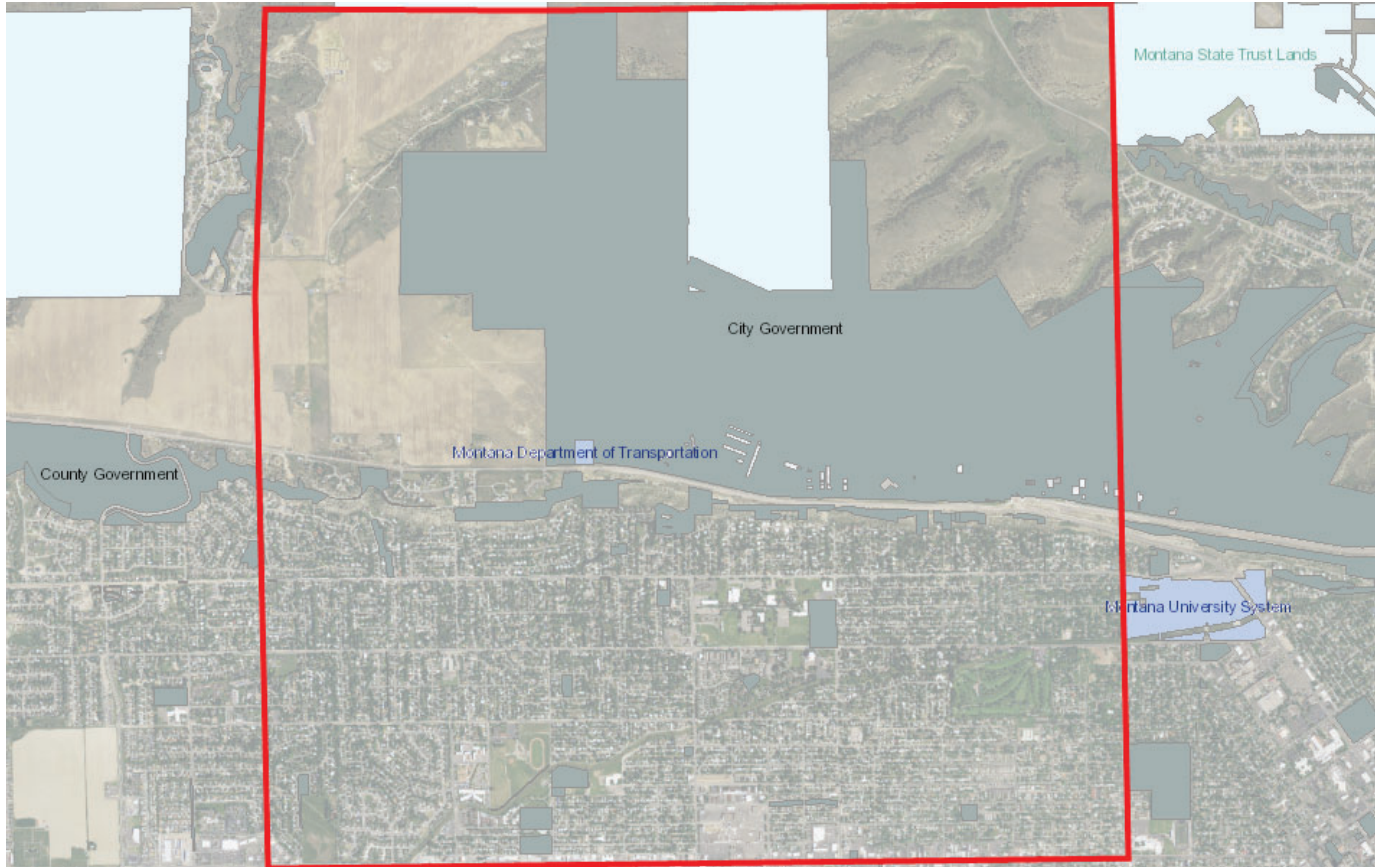
■ FO - Forested  
(no modifier)

**9 Acres Rp1FO**

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

## Land Management

Summarized by: **001N025E025** (Buffered PLSS Section)



### Land Management Summary

	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
<b>Public Lands</b>	<b>1,803 Acres (31%)</b>			
<b>State</b>	<b>309 Acres (5%)</b>			
Montana State Trust Lands	305 Acres (5%)			
MT State Trust Owned	305 Acres (5%)			
Montana Department of Transportation	4 Acres (<1%)			
MTDOT Owned	4 Acres (<1%)			
<b>Local</b>	<b>1,494 Acres (26%)</b>			
Local Government	1,494 Acres (26%)			
Local Government Owned	1,494 Acres (26%)			
<b>Private Lands or Unknown Ownership</b>	<b>3,969 Acres (69%)</b>			



## Biological Reports

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Summarized by: **001N025E025** (*Buffered PLSS Section*)

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](mailto:mtnhp@mt.gov)

- Hitchcock, O.B. 1939. ***Some factors affecting the development of the eggs of the Mormon cricket (Anabrus simplex Hald)***. M.Sc. Thesis. Bozeman, MT: Montana State University. 27 p.

Legend

<b>Model Icons</b>	<b>Habitat Icons</b>	<b>Range Icons</b>	<b>Num Obs</b>
Suitable (native range)	Common	Non-native	Count of obs with 'good precision' (<=1000m)
Optimal Suitability	Occasional		+ indicates additional 'poor precision' obs (1001m-10,000m)
Moderate Suitability			
Low Suitability			
Suitable (introduced range)			



Latitude 45.78410  
Longitude -108.52700  
45.82748 -108.59107

## Invasive and Pest Species

Summarized by: **001N025E025** (*Buffered PLSS Section*)

	# Obs	Predicted Model	Range
<b>Aquatic Invasive Species</b>			
<input type="checkbox"/> <b>A - American Bullfrog</b> ( <i>Lithobates catesbeianus</i> ) <b>AIS</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Aquatic Invasive Species - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> Predicted Models:  30% Optimal (inductive),  47% Moderate (inductive),  23% Low (inductive)			
<input type="checkbox"/> <b>V - Nymphaea odorata</b> ( <i>American Water-lily</i> ) <b>AIS</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Aquatic Invasive Species - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> Predicted Models:  24% Suitable (introduced range) (deductive)			
<input type="checkbox"/> <b>V - Nymphoides peltata</b> ( <i>Yellow Floating Heart</i> ) <b>AIS</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Aquatic Invasive Species - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> Predicted Models:  24% Suitable (introduced range) (deductive)			
<b>Noxious Weeds: Priority 1A</b>			
<input type="checkbox"/> <b>V - Isatis tinctoria</b> ( <i>Dyer's Woad</i> ) <b>N1A</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  67% Optimal (inductive),  21% Moderate (inductive),  12% Low (inductive)			
<input type="checkbox"/> <b>V - Centaurea solstitialis</b> ( <i>Yellow Starthistle</i> ) <b>N1A</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  24% Optimal (inductive),  63% Moderate (inductive),  13% Low (inductive)			
<input type="checkbox"/> <b>V - Phragmites australis ssp. australis</b> ( <i>European Common Reed</i> ) <b>N1A</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1A - Non-native Species</b> Global: <b>G5T5</b> State: <b>SNA</b> Predicted Models:  2% Optimal (inductive),  65% Moderate (inductive),  21% Low (inductive)			
<input type="checkbox"/> <b>V - Taeniatherum caput-medusae</b> ( <i>Medusahead</i> ) <b>N1A</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1A - Non-native Species</b> Global: <b>G4G5</b> State: <b>SNA</b> Predicted Models:  90% Low (inductive)			
<b>Noxious Weeds: Priority 1B</b>			
<input type="checkbox"/> <b>V - Polygonum cuspidatum</b> ( <i>Japanese Knotweed</i> ) <b>N1B</b>	2		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1B - Non-native Species</b> Global: <b>GNRTR</b> State: <b>SNA</b> Predicted Models:  67% Optimal (inductive),  31% Low (inductive)			
<input type="checkbox"/> <b>V - Lythrum salicaria</b> ( <i>Purple Loosestrife</i> ) <b>N1B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1B - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> Predicted Models:  67% Optimal (inductive),  10% Moderate (inductive),  22% Low (inductive)			
<input type="checkbox"/> <b>V - Chondrilla juncea</b> ( <i>Rush Skeletonweed</i> ) <b>N1B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  45% Moderate (inductive),  43% Low (inductive)			
<input type="checkbox"/> <b>V - Echium vulgare</b> ( <i>Blueweed</i> ) <b>N1B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  10% Moderate (inductive),  89% Low (inductive)			
<input type="checkbox"/> <b>V - Cytisus scoparius</b> ( <i>Scotch Broom</i> ) <b>N1B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 1B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  93% Low (inductive)			
<b>Noxious Weeds: Priority 2A</b>			
<input type="checkbox"/> <b>V - Rhamnus cathartica</b> ( <i>Common Buckthorn</i> ) <b>N2A</b>	1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  77% Optimal (inductive),  10% Moderate (inductive),  13% Low (inductive)			

<input type="checkbox"/>	<b>V - <i>Ventenata dubia</i></b> ( <i>Ventenata</i> ) <b>N2A</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  98% Moderate (inductive),  2% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Hieracium piloselloides</i></b> ( <i>Tall Hawkweed</i> ) <b>N2A</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  87% Moderate (inductive),  11% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Hieracium praealtum</i></b> ( <i>Kingdevil Hawkweed</i> ) <b>N2A</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  69% Moderate (inductive),  31% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Lepidium latifolium</i></b> ( <i>Perennial Pepperweed</i> ) <b>N2A</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2A - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  100% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Ranunculus acris</i></b> ( <i>Tall Buttercup</i> ) <b>N2A</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2A - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> Predicted Models:  61% Low (inductive)		
<b>Noxious Weeds: Priority 2B</b>			
<input type="checkbox"/>	<b>V - <i>Tamarix ramosissima</i></b> ( <i>Salt Cedar</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  1% Optimal (inductive),  32% Moderate (inductive),  67% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Linaria dalmatica</i></b> ( <i>Dalmatian Toadflax</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> Predicted Models:  98% Moderate (inductive),  2% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Lepidium draba</i></b> ( <i>Whitetop</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  97% Moderate (inductive),  3% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Centaurea diffusa</i></b> ( <i>Diffuse Knapweed</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  62% Moderate (inductive),  38% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Tanacetum vulgare</i></b> ( <i>Common Tansy</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  55% Moderate (inductive),  43% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Cynoglossum officinale</i></b> ( <i>Common Hound's-tongue</i> ) <b>N2B</b>	1	
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  46% Moderate (inductive),  54% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Berteroa incana</i></b> ( <i>Hoary False-allysum</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  36% Moderate (inductive),  64% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Centaurea stoebe</i></b> ( <i>Spotted Knapweed</i> ) <b>N2B</b>	7	
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  25% Moderate (inductive),  75% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Acroptilon repens</i></b> ( <i>Russian Knapweed</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  23% Moderate (inductive),  77% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Convolvulus arvensis</i></b> ( <i>Field Bindweed</i> ) <b>N2B</b>	2	
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  22% Moderate (inductive),  78% Low (inductive)		
<input type="checkbox"/>	<b>V - <i>Potentilla recta</i></b> ( <i>Sulphur Cinquefoil</i> ) <b>N2B</b>		
	<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> Predicted Models:  21% Moderate (inductive),  46% Low (inductive)		

<b>V - <i>Cirsium arvense</i></b> ( <i>Canada Thistle</i> ) <b>N2B</b>	1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>G5</b> State: <b>SNA</b> <b>Predicted Models:</b> 100% Low (inductive)			
<b>V - <i>Euphorbia virgata</i></b> ( <i>Leafy Spurge</i> ) <b>N2B</b>	2		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 100% Low (inductive)			
<b>V - <i>Leucanthemum vulgare</i></b> ( <i>Oxeye Daisy</i> ) <b>N2B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 86% Low (inductive)			
<b>V - <i>Hypericum perforatum</i></b> ( <i>Common St. John's-wort</i> ) <b>N2B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 35% Low (inductive)			
<b>V - <i>Linaria vulgaris</i></b> ( <i>Yellow Toadflax</i> ) <b>N2B</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Noxious Weed: Priority 2B - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 35% Low (inductive)			

**Regulated Weeds: Priority 3**

<b>V - <i>Elaeagnus angustifolia</i></b> ( <i>Russian Olive</i> ) <b>R3</b>	5		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Regulated Weed: Priority 3 - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 5% Optimal (inductive),  72% Moderate (inductive),  23% Low (inductive)			
<b>V - <i>Bromus tectorum</i></b> ( <i>Cheatgrass</i> ) <b>R3</b>	1		
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Regulated Weed: Priority 3 - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 36% Moderate (inductive),  64% Low (inductive)			

**Agricultural Pests**

<b>I - <i>Popillia japonica</i></b> ( <i>Japanese Beetle</i> ) <b>PESTA</b>	1		
<a href="#">View in Field Guide</a> <b>Agricultural Pest - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b>			

**Biocontrol Species**

<b>I - <i>Oberea erythrocephala</i></b> ( <i>Red-headed Leafy Spurge Stem Borer</i> ) <b>BIOCNTL</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Biocontrol Species - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 15% Optimal (inductive),  83% Moderate (inductive),  2% Low (inductive)			
<b>I - <i>Mecinus janthiniformis</i></b> ( <i>Dalmatian Toadflax Stem-boring Weevil</i> ) <b>BIOCNTL</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Biocontrol Species - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 90% Moderate (inductive),  10% Low (inductive)			
<b>I - <i>Aphthona lacertosa</i></b> ( <i>Brown-legged Leafy Spurge Flea Beetle</i> ) <b>BIOCNTL</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Biocontrol Species - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 27% Moderate (inductive),  52% Low (inductive)			
<b>I - <i>Cyphocleonus achates</i></b> ( <i>Knapweed Root Weevil</i> ) <b>BIOCNTL</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Biocontrol Species - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 38% Low (inductive)			
<b>I - <i>Aphthona nigricutis</i></b> ( <i>Black Dot Leafy Spurge Flea Beetle</i> ) <b>BIOCNTL</b>			
<a href="#">View in Field Guide</a> <a href="#">View Predicted Models</a> <a href="#">View Range Maps</a> <b>Biocontrol Species - Non-native Species</b> Global: <b>GNR</b> State: <b>SNA</b> <b>Predicted Models:</b> 33% Low (inductive)			

# Introduction to Montana Natural Heritage Program



PO Box 201800 • 1201 11th Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • phone 406.444.3989 • [mtnhp.mt.gov](http://mtnhp.mt.gov)

## 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 <a href="mailto:zshattuck@mt.gov">zshattuck@mt.gov</a> (406) 444-1231 or Eric Roberts <a href="mailto:eroberts@mt.gov">eroberts@mt.gov</a> (406) 444-5334
American Bison Black-footed Ferret Black-tailed Prairie Dog Bald Eagle Golden Eagle Common Loon Least Tern Piping Plover Whooping Crane	Kristina Smucker <a href="mailto:KSmucker@mt.gov">KSmucker@mt.gov</a> (406) 444-5209
Grizzly Bear Greater Sage Grouse Trumpeter Swan Big Game Upland Game Birds Furbearers	Brian Wakeling <a href="mailto:brian.wakeling@mt.gov">brian.wakeling@mt.gov</a> (406) 444-3940
Managed Terrestrial Game Data	Adam Messer – MFWP GIS Coordinator <a href="mailto:amesser@mt.gov">amesser@mt.gov</a> (406) 444-0095
Fisheries Data and Nongame Animal Data	Adam Messer – MFWP GIS Coordinator <a href="mailto:amesser@mt.gov">amesser@mt.gov</a> (406) 444-0095
Wildlife and Fisheries Scientific Collector’s Permits	<a href="https://fwp.mt.gov/buyandapply/commercialwildlifeandscientificpermits/scientific">https://fwp.mt.gov/buyandapply/commercialwildlifeandscientificpermits/scientific</a> Kristina Smucker for Wildlife <a href="mailto:ksmucker@mt.gov">ksmucker@mt.gov</a> (406) 444-5209 Dave Schmetterling for Fisheries <a href="mailto:dschmetterling@mt.gov">dschmetterling@mt.gov</a> (406) 542-5514
Fish and Wildlife Recommendations for Subdivision Development	Stevie Burton <a href="mailto:stevie.burton@mt.gov">stevie.burton@mt.gov</a> (406) 594-7354 See <a href="https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations">https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations</a>
Regional Contacts 	Region 1 (Kalispell) (406) 752-5501 <a href="mailto:fwprg12@mt.gov">fwprg12@mt.gov</a> Region 2 (Missoula) (406) 542-5500 <a href="mailto:fwprg22@mt.gov">fwprg22@mt.gov</a> Region 3 (Bozeman) (406) 577-7900 <a href="mailto:fwprg3@mt.gov">fwprg3@mt.gov</a> Region 4 (Great Falls) (406) 454-5840 <a href="mailto:fwprg42@mt.gov">fwprg42@mt.gov</a> Region 5 (Billings) (406) 247-2940 <a href="mailto:fwprg52@mt.gov">fwprg52@mt.gov</a> Region 6 (Glasgow) (406) 228-3700 <a href="mailto:fwprg62@mt.gov">fwprg62@mt.gov</a> Region 7 (Miles City) (406) 234-0900 <a href="mailto:fwprg72@mt.gov">fwprg72@mt.gov</a>

### Montana Conservation Districts

Clickable map for contact information across Montana: <https://macdnet.org/conservation-district-map/>  
Montana Association of Conservation Districts Resources Directory: <https://macdnet.org/resources>

### 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>  
Opencut Mining Web Mapping Application for review of opencut mining applications  
<https://gis.mtdeq.us/portal/apps/webappviewer/index.html?id=7b60084bc4c444a19c9a7a0867e7635a>


### 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

<p>Montana Field Office Contacts:</p> 	<p>Billings (406) 896-5013 Butte (406) 533-7600 Dillon (406) 683-8000 Glasgow (406) 228-3750 Havre (406) 262-2820</p>	<p>Lewistown (406) 538-1900 Malta (406) 654-5100 Miles City (406) 233-2800 Missoula (406) 329-3914</p>
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### 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/>  
Email for questions: [Montana.Reg@usace.army.mil](mailto:Montana.Reg@usace.army.mil)  
Phone for questions: (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

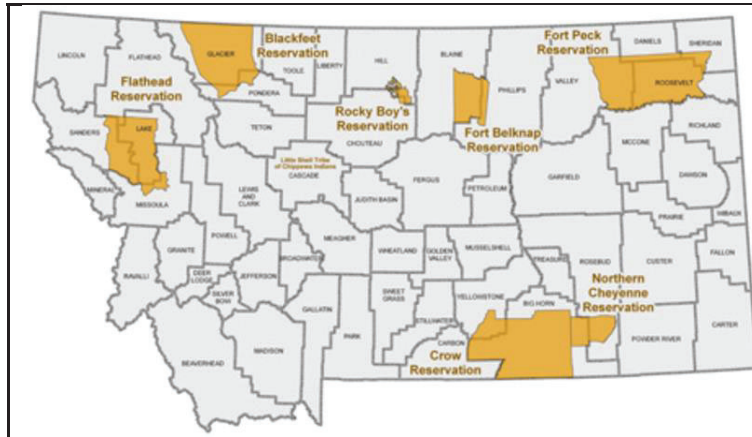
Information Planning and Conservation (IPAC) website: <https://ipac.ecosphere.fws.gov>  
Montana Ecological Services Field Office: <https://www.fws.gov/office/montana-ecological-services> (406) 449-5225

## United States Forest Service

### Regional Office – Missoula, Montana Contacts

Assistant Regional TES PM	Diane Probasco	<a href="mailto:diane.probasco@usda.gov">diane.probasco@usda.gov</a>	(307) 709-2292
Assessment/Planning Wildlife Ecologist	T.J. Fontaine	<a href="mailto:jospeh.fontaine@usda.gov">jospeh.fontaine@usda.gov</a>	(406) 802-0617
Interagency Grizzly Bear Coordinator	Scott Jackson	<a href="mailto:scott.jackson@usda.gov">scott.jackson@usda.gov</a>	(406) 329-3664
Regional Botanist	Amanda Hendrix	<a href="mailto:amanda.hendrix@usda.gov">amanda.hendrix@usda.gov</a>	(651) 447-3016
Regional Vegetation Ecologist	Mary Manning	<a href="mailto:mary.manning@usda.gov">mary.manning@usda.gov</a>	(406) 329-3304
Invasive Species Program Manager	Michelle Cox	<a href="mailto:michelle.cox2@usda.gov">michelle.cox2@usda.gov</a>	(406) 329-3669
Regional Hydrologist	Andy Efta	<a href="mailto:james.efta@usda.gov">james.efta@usda.gov</a>	(406) 329-3447

## Tribal Nations



[Assiniboine & Gros Ventre Tribes – Fort Belknap Reservation](#)  
[Assiniboine & Sioux Tribes – Fort Peck Reservation](#)  
[Blackfoot Tribe - Blackfoot 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 \(MISC\)](#)  
[Western Montana Conservation Commission](#)

### 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 filtered or requested as “Additional Species” or Species of Concern without suitable documentation to create Species Occurrence polygons; and (3) other non-documented Species of Concern or additionally filtered or requested 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 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, 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](mailto:apipp@mt.gov) or Senior Zoologist [dbachen@mt.gov](mailto: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

An observation is a visual, audio, specimen, genetic, or other documentation of a particular species at a location with an assigned spatial precision on a given date. Most 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 5,000 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 Concern, Potential Species of Concern, and Special Status Species to determine whether they are worthy of inclusion in the [Species Occurrence](#) (SO) (also known as an “element occurrence” or EO) 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) 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:

### Botanical Species

A documented location of a specimen collection or observed plant, lichen, or fungi 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.

### Animal Species

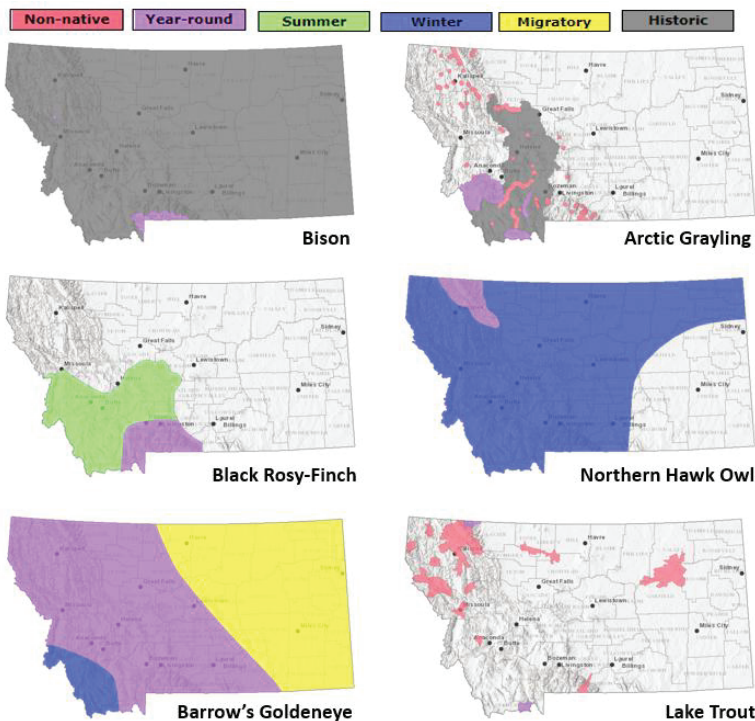
The location of a verified observation or specimen record typically known or assumed to represent a breeding population or a portion of a breeding population. Animal SO's are generally: (1) buffers of terrestrial point observations based on documented species' home range sizes; (2) buffers of stream 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).

### Other

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

Range polygons have been created for native vascular plants and vertebrate animal species with sufficient data and are being created for other taxa as staff time is available. Range polygons are refined over time with



assistance of additional survey and observation data and predicted habitat suitability models. Range polygons are classified as native year-round, summer, winter, migratory, historical, and non-native year-round (see examples to the left). Range polygons for native species and non-native aquatic species typically bound the extent of known or likely occupied habitats for non-migratory and relatively 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. Unless predicted invasion risk models indicate unsuitable habitat for large portions of Montana, range polygons for non-native vascular plant species are typically mapped as statewide to reflect their possible invasion across Montana; please see relative density maps for reported distributions of these

species. 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 non-native species are represented more patchily when supported by data. Some ranges are mapped more broadly than actual distributions to be visible on statewide maps (e.g., streams with fish are buffered for visibility)

## 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.

### **Other Habitat Information for Species**

1. The excel spreadsheet accompanying this report contains a field labeled “Habitat” in all the species related worksheets that contains brief text describing the predominant habitat or habitats each species is dependent on. This field can be useful for quickly determining whether a species needs considerations in environmental permitting and planning. For example, if the report area includes a large area of forest and grassland habitat and the project is only affecting a small portion of the grassland habitat without any disturbance to the forest habitat, the Habitat field can be useful for removing the forest dependent species from further consideration.
2. Species accounts in the [Montana Field Guide](#) each contain a section on Ecological Communities Associated with this Species that lists and links to accounts for associated natural habitats.
3. Accounts for natural habitats in the Ecological Communities portion of the [Montana Field Guide](#) each contain a section on Species Associated with this Community that lists and links to accounts for associated species. This is divided between: (1) Species of Concern Associated with this Community; (2) Diagnostic, Dominant, or Codominant Plant Species for this Community; and (3) Other Native Species Commonly Associated with this Community.

# 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/](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](mailto: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](mailto:bmaxell@mt.gov) Program Botanist [apipp@mt.gov](mailto:apipp@mt.gov) or Senior Zoologist [dbachen@mt.gov](mailto: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

[Effects of Recreation on Rocky Mountain Wildlife](#)

[Laws, Treaties, Regulations, and Agreements on Animals and Plants](#)

[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 Forestry Best Management Practices](#)

[Montana GIS Data Layers](#)

[Montana GIS Data Bundler](#)

[Montana Greater Sage-Grouse Project Submittal Site](#)

[Montana Guide to Streamside Management Zone Law and Rules](#)

[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](#)

[Montana Native Plant Conservation Strategy](#)

[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)

[Uses of Information from the Montana Natural Heritage Program](#)

[Web Soil Survey Tool](#)

[Xerces Society for Invertebrate Conservation Resources](#)

## ATTACHMENT B

### FIGURES

FIGURE 1 - SITE MAP

FIGURE 2 - OVERALL SITE MAP

FIGURE 3 - FLOODMAP

FIGURE 4 - NOISE CONTOURS

FIGURE 5 - FARMLAND CLASSIFICATION



P:\2447-BLL150-27-2026 TAXILANE\ACAD\EXHIBITS\2026-TL-CATEX.DWG  
PLOTTED BY: KENT KUEHN ON Nov/18/2025

VERIFY SCALE!  
THESE PRINTS MAY BE REDUCED.  
LINE BELOW MEASURES ONE INCH  
ON ORIGINAL DRAWING.  
MODIFY SCALE ACCORDINGLY!

REVISIONS				
NO.	DESCRIPTION	BY	DATE	
				BILLINGS LOGAN INTERNATIONAL AIRPORT


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DRAWN BY: KDK  
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 APPR. BY: HEM  
 DATE: 11/18/2025  
 Q.C. REVIEW BY:  
 DATE:

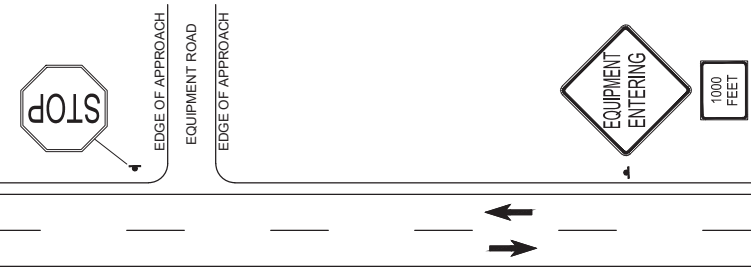
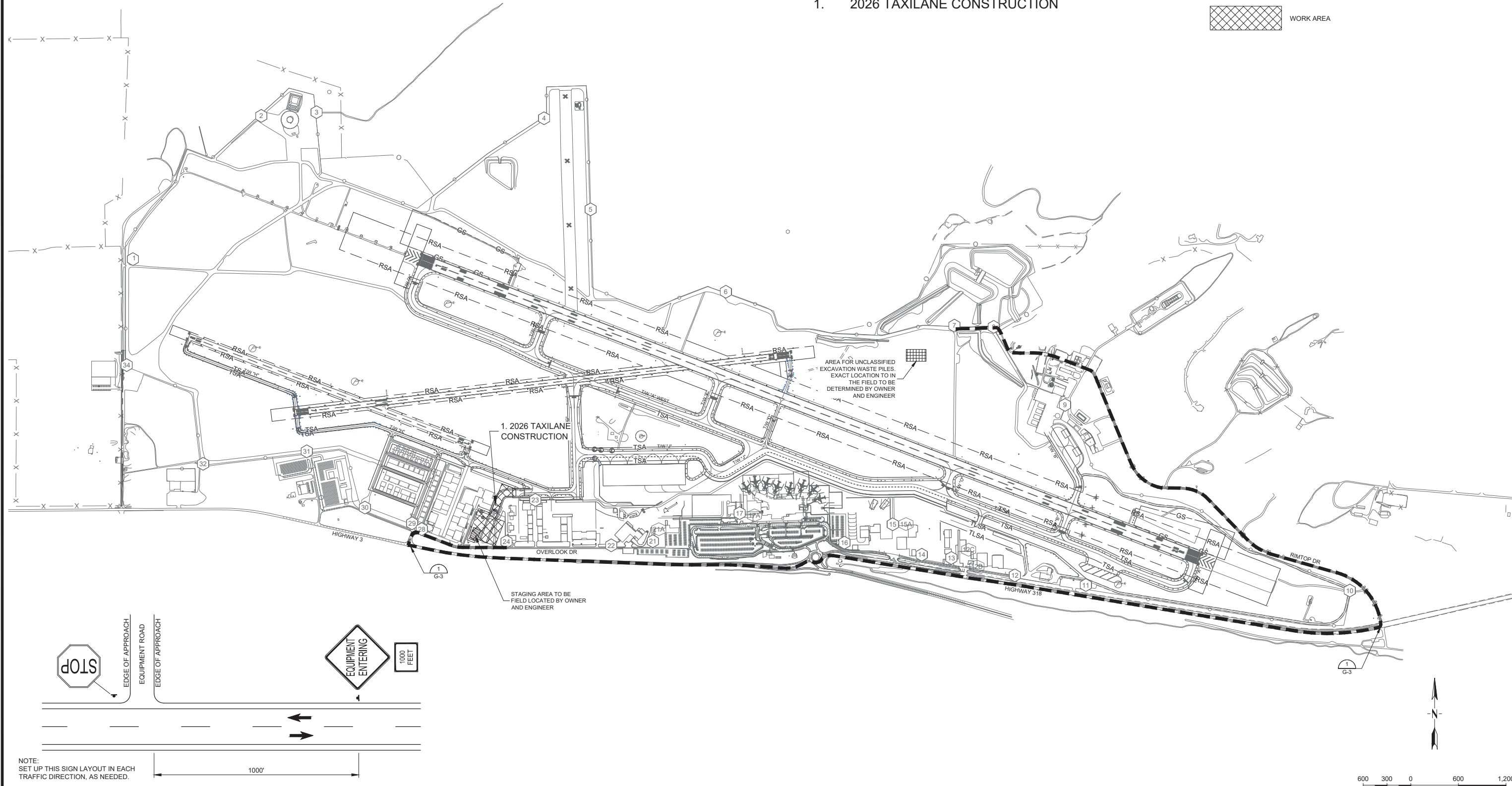
BILLINGS LOGAN INTERNATIONAL AIRPORT  
 MONTANA  
 FIGURE 1 - SITE PLAN  
 DRAWING NUMBER 1

PROJECT NUMBER 2447.150.27  
 SHEET NUMBER 1  
 DRAWING NUMBER 1

**LEGEND**

-  GATE NUMBER
-  HAUL ROUTE
-  WORK AREA

**PROJECT SCOPE OF WORK**  
1. 2026 TAXILANE CONSTRUCTION



NOTE:  
SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION, AS NEEDED.

**1**  
G-3  
**TYPICAL ACCESS SIGNING DETAIL**  
NOT TO SCALE

**FOR CONSTRUCTION**  
MARCH 2024

P:\2447-BLL150-27-2026 TAXILANE\ACAD\EXHIBITS\2026-TL-CATEX-SITE-MAP.DWG

VERIFY SCALE!		REVISIONS	
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DATE:  

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FIGURE 2 - OVERALL SITE MAP

PROJECT NUMBER 2447.150.27  
SHEET NUMBER 2  
DRAWING NUMBER 2

# FIGURE 3 - FEMA FLOOD HAZARD MAP

## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updates or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Flood Elevations** shown on this map apply only to landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 12N. The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NDA, NGS12  
National Geodetic Survey  
5350-5, #6202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base map** information shown on this FIRM was derived from NAD Orthophotography produced with a one meter ground resolution from photography dated 2000.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contain authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://www.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information Center (FMIC)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/fip>.

PROJECT LOCATION



### LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AV, X, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A:** No Base Flood Insurance determined.  
**ZONE AE:** Base Flood Elevations determined.  
**ZONE AE1:** Flood depths of 1 to 3 feet (locally areas of ponding). Base Flood Elevation determined.  
**ZONE AE2:** Flood depths of 1 to 3 feet (locally sheet flow on sloping terrain). Average depths determined. No areas of allowed for flooding, vehicles also determined.  
**ZONE AE3:** Special Flood Hazard Areas formerly undated from the 1% annual chance flood by a flood control system that was substantially destroyed. Zone AE3 indicates that the former flood control system is being replaced to provide protection from the 1% annual chance or greater flood.  
**ZONE AE4:** Area to be protected from 1% annual chance flood by a future flood protection system under construction. No Base Flood Elevations determined.  
**ZONE AE5:** Coastal Flood zone with velocity hazard (wave action). No Base Flood Elevations determined.  
**ZONE AE6:** Coastal Flood zone with velocity hazard (wave action). Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE:**  
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increase in flood heights.

**OTHER FLOOD AREAS**  
**ZONE 1:** Areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.  
**ZONE 2:** Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE 3:** Areas in which flood heights are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
**OTHERWISE PROTECTED AREAS (OPAs)**  
**CBRS areas and OPAs** are normally located within or adjacent to Special Flood Hazard Areas.  
**1% Annual Chance Floodplain Boundary**  
**0.2% Annual Chance Floodplain Boundary**  
**Floodway boundary**  
**Zone D boundary**  
**CBRS and OPA boundary**  
**Boundaries showing Special Flood Hazard Area Zones and boundaries showing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities**  
**Base Flood Elevation line and value; elevation in feet**  
**Base Flood Elevation value where unshown zone area, elevation in feet**  
**Referenced to the North American Vertical Datum of 1988**  
**Cross section line**  
**Transect line**  
**Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) (Nation Hemisphere)**  
**1000-foot scale; National Base Flood Zone (FIS) Zone 2000; Limited-Correlational Contour projection**  
**3000-meter Universal Transverse Mercator grid values, zone 12N**  
**Bench mark (see explanation in Notes to Users section of the FISR report)**  
**MAP REPOSITORIES**  
**Refer to Map Repository list on Map Index**  
**EFFECTIVE DATE OF COUNTY/FLOOD INSURANCE RATE MAP**  
**NOVEMBER 8, 2013**  
**EFFECTIVE DATES OF REVISIONS TO THIS PANEL**

For community map revision history prior to community mapping, refer to the Community Map Repository table located in the Flood Insurance Study report for this jurisdiction.  
 To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-FEMA-8000.

**MAP SCALE 1" = 1000'**  
 0 1000 2000 FEET  
 0 300 600 METERS

#### Yellowstone County Vertical Datum Offset Table

Flooding Source	Vertical Datum Offset (ft)	Flooding Source	Vertical Datum Offset (ft)
Abbot Creek	2.0	Duck Creek Tributary	2.7
Blue Creek	2.7	Nelson Drain	2.8
Canyon Creek	2.8	Main Street Overflow	2.8
Cave Creek	2.7	Notting Drain	2.8
Castle Park Yellowstone River	2.8	Unnamed Creek	2.8
Dry Creek	2.8	Main Street Overflow	2.8
Duck Creek	2.7	Yellowstone River	2.4

Example: To convert Abbot Creek elevations to NAVD 88, 2.0 feet were added to the NAVD 29 elevations.

**NFIP**

**PANEL 1270E**

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**YELLOWSTONE COUNTY, MONTANA**  
**AND INCORPORATED AREAS**

**PANEL 1270 OF 1875**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

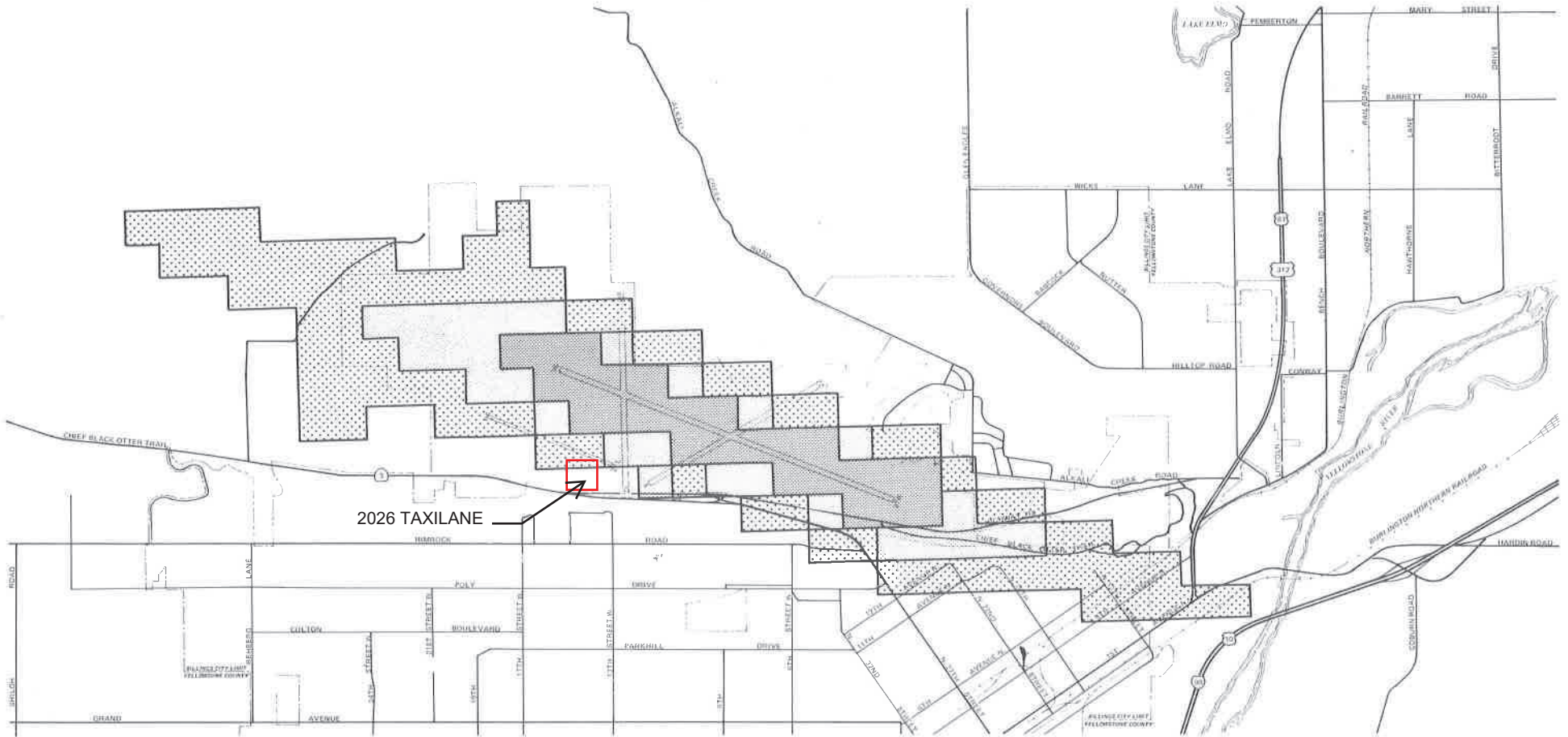
**CONTAINS:**  
 COMMUNITY: BILLINGS CITY OF 30000  
 NUMBER: 1270  
 SHEET: 2  
 YELLOWSTONE COUNTY: 30040  
 SHEET: 1270  
 SHEET: 2  
 INCORPORATED AREAS

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used in insurance applications for the subject community.





**MAP NUMBER**  
**30111C1270E**  
**EFFECTIVE DATE**  
**NOVEMBER 8, 2013**

**Federal Emergency Management Agency**

Figure 4 : Noise Zones



2026 TAXILANE

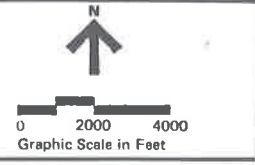
-  Zone 4: Ldn 75+
-  Zone 3: Ldn 70 to 75
-  Zone 2: Ldn 65 to 70
-  Zone 1: Less than Ldn 65

Ldn = Day-Night Sound Level

**C-2**  
Exhibit

Master Plan and Noise Compatibility Program-Billings Logan International Airport  
 City of Billings, Montana

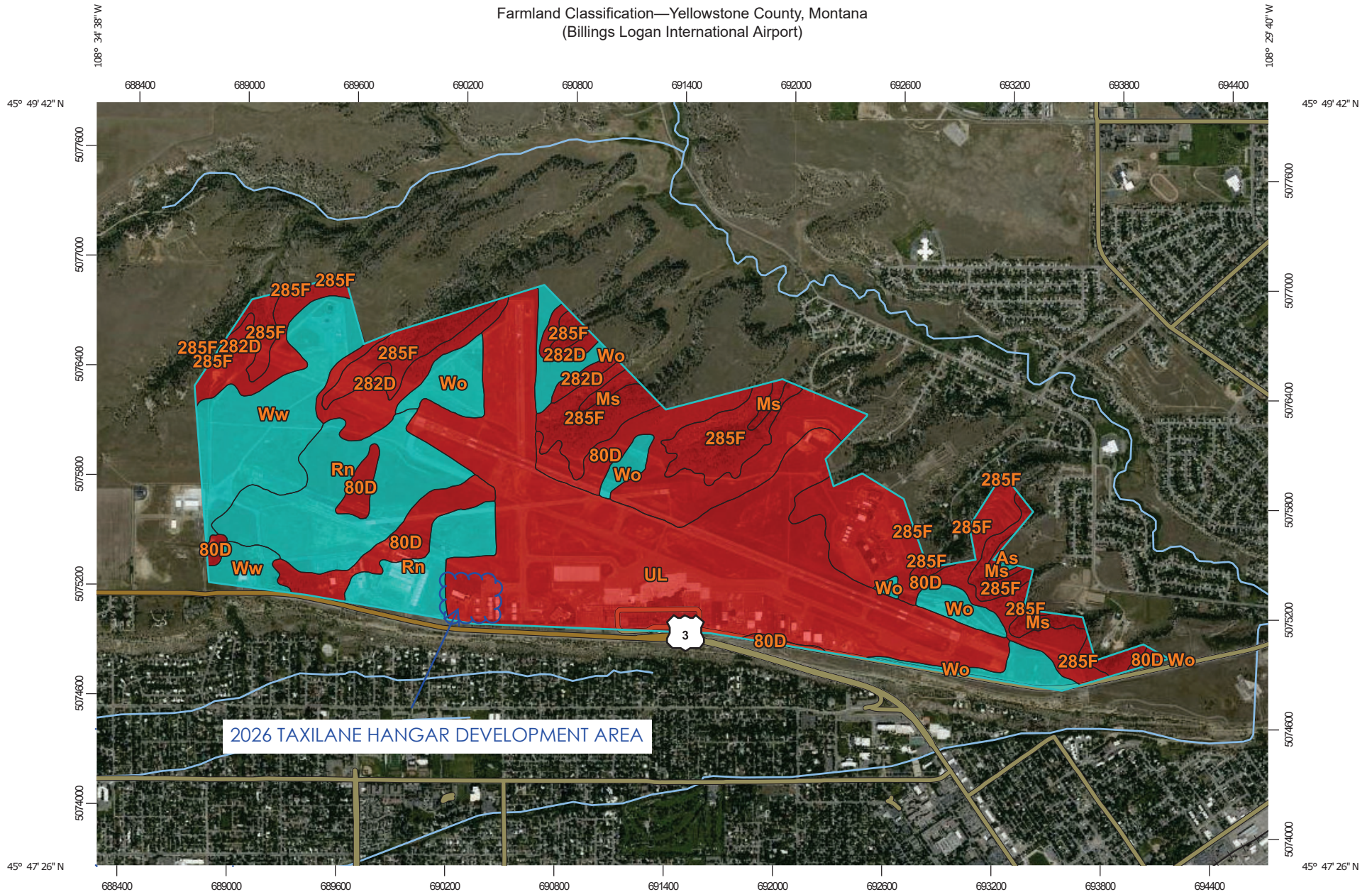
**Aircraft Noise Overlay Zones**



**PEAT MARWICK**

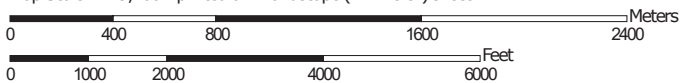
April 1985

Farmland Classification—Yellowstone County, Montana  
(Billings Logan International Airport)



2026 TAXILANE HANGAR DEVELOPMENT AREA

Map Scale: 1:29,400 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

Farmland Classification—Yellowstone County, Montana  
(Billings Logan International Airport)









**MAP LEGEND**








**Area of Interest (AOI)**






 Area of Interest (AOI)








**Soils**



**Soil Rating Polygons**

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60




































-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available






















**Soil Rating Lines**

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Yellowstone County, Montana  
(Billings Logan International Airport)

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer	
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season			Not prime farmland		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Prime farmland if drained		Prime farmland if irrigated and reclaimed of excess salts and sodium	
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance	
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		Prime farmland if irrigated		Farmland of statewide importance, if drained	
	Farmland of statewide importance, if irrigated				Farmland of local importance		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season	
					Farmland of local importance, if irrigated		Prime farmland if irrigated and drained		Farmland of statewide importance, if irrigated	
							Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season			

Farmland Classification—Yellowstone County, Montana  
(Billings Logan International Airport)

<ul style="list-style-type: none"> <li> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if irrigated and drained</li> <li> Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer</li> <li> Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</li> </ul>	<ul style="list-style-type: none"> <li> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium</li> <li> Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if warm enough</li> <li> Farmland of statewide importance, if thawed</li> <li> Farmland of local importance</li> <li> Farmland of local importance, if irrigated</li> </ul>	<ul style="list-style-type: none"> <li> Farmland of unique importance</li> <li> Not rated or not available</li> </ul> <p><b>Water Features</b></p> <ul style="list-style-type: none"> <li> Streams and Canals</li> </ul> <p><b>Transportation</b></p> <ul style="list-style-type: none"> <li> Rails</li> <li> Interstate Highways</li> <li> US Routes</li> <li> Major Roads</li> <li> Local Roads</li> </ul> <p><b>Background</b></p> <ul style="list-style-type: none"> <li> Aerial Photography</li> </ul>	<p>The soil surveys that comprise your AOI were mapped at 1:20,000.</p> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Yellowstone County, Montana Survey Area Data: Version 17, Sep 16, 2019</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Jul 28, 2019—Jul 30, 2019</p> <p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>
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## Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
80D	Blacksheep sandy loam, 4 to 15 percent slopes	Not prime farmland	302.6	19.0%
282D	Cabbart-Blacksheep complex, 4 to 15 percent slopes	Not prime farmland	104.0	6.5%
285F	Blacksheep, dry-Cabbart, dry-Rock outcrop, complex, 8 to 60 percent slopes	Not prime farmland	178.5	11.2%
As	Apron fine sandy loam, 4 to 7 percent slopes	Farmland of statewide importance	0.8	0.0%
Ms	McRae-Bainville loams, 7 to 15 percent slopes	Not prime farmland	14.4	0.9%
Rn	Ryegate fine sandy loam, 2 to 4 percent slopes	Farmland of statewide importance	200.1	12.5%
UL	Urban land	Not prime farmland	546.1	34.2%
Wo	Worland fine sandy loam, 2 to 7 percent slopes	Farmland of statewide importance	101.0	6.3%
Ww	Wormser-Worland sandy loams, 4 to 7 percent slopes	Farmland of statewide importance	147.3	9.2%
<b>Totals for Area of Interest</b>			<b>1,594.8</b>	<b>100.0%</b>

## Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

## Rating Options

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower