

VIRGINIA CITY SCHOOLHOUSE

313 EAST IDAHO STREET, VIRGINIA CITY

Notice Of Public Comment—Montana State Historic Office (SHPO) Grant

The Montana State Historic Preservation Office (SHPO) invites public comment related to a proposed SHPO Grant for the Virginia City Schoolhouse Virginia City Schoolhouse Drainage Install, Gutter Install, and Masonry Repair Project. The Virginia City Schoolhouse is located at 313 East Idaho Street in Virginia City, Madison County, MT (Section 23, Range 3W, Township 6S, Virginia City Original Townsite, Block 188, Lot 4-9). The grant would assist in rehabilitating the historic building's physical features and restoring the building to usable conditions. A draft environmental checklist is available upon request and online at <https://mhs.mt.gov/shpo/news>. Interested public is invited to register on the same page for the virtual Zoom meeting to be held on May 21, 2025, and/or to submit public comment between April 21, 2025 and May 21, 2025 by emailing SHPOGrant@mt.gov or sending written comments to Montana SHPO, 225 North Roberts St, Helena, MT 59620. Comments must be submitted to the Montana SHPO no later than 5:00 pm on Wednesday, May 21.

Scope of Work

The 1876 Virginia City Schoolhouse with its 1910 addition is a two-story, unreinforced masonry that Madison County leases to the VC Schoolhouse Foundation, an arts organization. The organization wishes to preserve the schoolhouse, take ownership of it, and program arts activities in it.

Madison County proposes the following scope of work: 1) install a drainage system at the foundation; 2) install gutters at the roof eaves; 3) repair brick at the south and west elevations; and 4) improve site drainage.

Award: \$40,000





*Montana Fish,
Wildlife & Parks*

ENVIRONMENTAL ANALYSIS

MEPA NEPA Checklist

MISSION. Montana Fish, Wildlife & Parks, through its employees and citizen commission, provides for the stewardship of the fish, wildlife, parks and recreational resources of Montana, while contributing to the quality of life for present and future generations

All Montanans have the right to live in a clean and healthful environment. This environmental analysis is intended to provide an evaluation of the likely impacts to the human environment from proposed actions of the project cited below. This analysis will help Montana Fish, Wildlife & Parks to fulfill its oversight obligations and satisfy rules and regulations of both the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA). Please provide a discussion for each section. If no impacts are likely, be sure to discuss the reasoning that led to your determination.

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed action.

- Development _____
- Renovation X
- Maintenance _____
- Land Acquisition _____
- Equipment Acquisition _____
- Other (Describe) _____

2. If appropriate, agency responsible for the proposed action.

Madison County (project sponsor and property owner)
MT SHPO (grantor)

3. Name, address phone number and E-mail address of project sponsor.

Madison County
103 West Wallace Street, Virginia City, MT 59755
406 843-4277 madco@madisoncountymt.gov

4. Name of project.

Virginia City Schoolhouse Drainage Install, Gutter Install, and Masonry Repair Project

5. If applicable:

Estimated construction/commencement date: July 1, 2025

Estimated completion date: December 31, 2025

Current status of project design (% complete) 0%

6. Location affected by proposed action (county, range and township).

313 East Idaho Street, Virginia City, MT 59755
Madison County, Section 23, Range 3W, Township 6S
VIRGINIA CITY ORIG TOWNSITE, BLOCK 188, Lot 4 - 9

7. Project size: estimate the numbers of acres that would be directly affected that are currently:

(a) Developed:
residential..... 0.5 acres
industrial acres

(b) Open Space/Woodlands/
Recreation..... 0 acres

(c) Wetlands/Riparian
Areas 0 acres

(d) Floodplain 0 acres

(e) Productive:
irrigated cropland..... 0 acres
dry cropland 0 acres
forestry 0 acres
rangeland 0 acres
other..... 0 acres

8. Map/site plan: attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.

9. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action.

After 15-years of vacancy, this National Register (NR) listed cultural landmark is poised for a multi-phased rehabilitation effort to ensure its on-going use as school, in this case, for working artists to learn and create. The project will address the building’s most immediate preservation needs, specifically brick deterioration due to poor site drainage and the absence of gutters. The county, in cooperation with the VC Schoolhouse Foundation, will use the requested grant funds to retain contractors to install a drainage system near the foundation, gutters at the eaves, and repair brick deteriorated along the south and west sides of the building. Following on the heels of successful Phase 1 efforts to reactivate the building, proposed Phase 2 work will address chronic drainage problems, repair “soft” brick and mortar deterioration, and improve the building’s overall appearance and functionality.

10. Description and analysis of reasonable alternatives (including the MEPA-required no action alternative). At a minimum, the following three alternatives must be presented.

- a). Preferred Alternative: Fund project as described in narrative and application materials.
- b). No-action Alternative: No funding provided by SHPO, project does not go forward.
- c). Additional Alternatives: Project moves forward without funding as described in application. Time period extended, no federal or state oversight.

11. Listing of each local, state or federal agency that has overlapping or additional jurisdiction.

(a) Permits		
Agency Name: Madison County Town of Virginia City, MT	Permit: Development Permit	Date Filed: May 2025

(b) Funding	
Agency Name: NPS VC Schoolhouse Foundation	Funding Amount: \$40,000 \$4,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities	
Agency Name: Town of Virginia City, MT Certified Local Government (CLG)	Type of Responsibility: Design Review Zoning Review

12. List of agencies consulted during preparation of this Environmental Checklist:

Montana SHPO
Virginia City CLG (design review agency)
Virginia City Vigilance Club (local historical society)
Montana Heritage Commission (state preservation agency)

13. Name of Preparer(s) of this Environmental Checklist:

James Jarvis

14. Date submitted:

April 10, 2025

PART II. ENVIRONMENTAL CHECKLIST

PHYSICAL ENVIRONMENT. At the bottom of this “Land Resources” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on land resources. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects of the action as well as the long-term effects. Attach additional pages of narrative if needed.

1. LAND RESOURCES Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?		X				
c. Destruction, covering or modification of any unique geologic or physical features?			X		Y	
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other		X				

Narrative: Addressing poor drainage at this hillside location is a primary goal of the project, specifically reducing surface and roof runoff that have caused “ponding” and “splashing” near the building’s foundation and deterioration of masonry units, i.e. brick, stone, and mortar. As proposed a shallow rock-lined drainage system will be installed to collect and divert runoff around the building for safe discharge onto large adjacent grassy lawn areas. No changes to off-site drainage patterns are anticipated. Once drainage issues are mitigated, deteriorated masonry will be restored with matching “in-kind” materials. Under Alternatives 1 and 3, no changes to the existing grade or soil conditions are anticipated other than improved localized drainage. The surface of disturbed areas will be returned to pre-construction conditions, i.e gravel and grass. Alternative 2 would result in no modification of geologic or physical features.

PHYSICAL ENVIRONMENT. At the bottom of this “Air” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on air resources. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects of the action as well as the long-term effects. Attach additional pages of narrative if needed.

2. AIR Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))			X		Y	
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. Any discharge that will conflict with federal or state air quality regs?		X				
f. Other		X				

Narrative: Air quality impacts due to dust from excavation work and masonry repairs and exhaust from equipment under Alternatives 1 and 3 will be confined to construction days and will be temporary and minor in scale with no lasting effects. No significant impacts to air quality are anticipated. The project is limited to the footprint around the existing building surrounded by a large gravel parking lot and grassy lawn area. As such, no significant alterations to air movement, moisture, temperature patterns, change in climate, or adverse effects on vegetation are anticipated. Under Alternative 2, no emission of exhausts or dust will occur.

PHYSICAL ENVIRONMENT. At the bottom of this “Water” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on water resources. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

3. WATER	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?			X		Y	
c. Alteration of the course or magnitude of floodwater or other flows?			X		Y	
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. Effects to a designated floodplain?		X				
m. Any discharge that will affect federal or state water quality regulations?		X				
n. Other:		X				

Narrative: Addressing poor drainage at this hillside site is a primary goal of the project, specifically reducing surface and roof run off “ponding” and “splashing” near the building’s foundation causing deterioration of masonry units, i.e. brick, stone, and mortar. As proposed, a licensed excavation contractor will be used to design and construct a shallow rock-lined drainage system to intercept and collect and divert runoff around the building for safe discharge on to large adjacent grassy lawn areas. A licensed gutter contractor will install gutters around the eaves of the building with downspouts. No changes to off-site drainage patterns are anticipated under Alternatives 1 and 3, due to the large downgradient lawn area and its ability to absorb discharge. Localized flooding, associated with storm events, near the building and adjacent gravel parking lot will be alleviated with the discharge safety redirected to adjacent lawn areas for re-absorption. Under Alternative 2, no changes to drainage patterns, surface runoff rate/amount, or course/magnitude of floodwater is anticipated.

The project area is not in a floodplain or in a riparian zone, as shown on the attached FEMA firmette.

PHYSICAL ENVIRONMENT. At the bottom of this “Vegetation” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on vegetative resources. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

4. VEGETATION	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		Y	
f. Effects to wetlands or prime and unique farmland?		X				
g. Other:		X				

Narrative: Vegetation at the site is limited to established manicured grassy lawns on three sides of the building with a large gravel parking lot along the southern elevation of the building.

The “species occurrences” chapter of the Montana Natural Heritage Summary Report (Report, attached) does not list any observed vegetation species in the polygon that contains the project area. The Report does list species that could potentially be in the project area. Of these, species of concern (SOC) and potential species of concern (PSOC) include *Draba densifolia* (Dense-leaf Draba), *Potentilla plattensis* (Platte Cinquefoil), *Stellaria crassifolia* (Fleshy Stitchwort), *Adoxa moschatellina* (Musk-root), *Astragalus terminalis* (Railhead Milkvetch), *Castilleja gracillima* (Slender Indian Paintbrush), *Eleocharis rostellata* (Beaked Spikerush), *Elodea bifoliata* (Long-sheath Waterweed), *Erigeron linearis* (Linear-leaf Fleabane), *Erigeron parryi* (Parry’s Fleabane), *Noccaea parviflora* (Small-flowered Pennycress), *Orobanche corymbosa* (Flat-topped Broomrape), *Primula incana* (Mealy Primrose), and *Ranunculus hyperboreus* (High Northern Buttercup).

The Report lists several noxious weeds in the polygon that contains the project area. Priority 1A species include *Centaurea solstitialis* (Yellow Starthistle), *Isatis tinctoria* (Dyer’s Woad), and *Taeniatherum caput-medusae* (Medusahead). Priority 1B species include *Echium vulgare* (Blueweed), *Lythrum salicaria* (Purple Loosestrife), *Polygonum cuspidatum* (Japanese Knotweed), and *Polygonum x bohemicum* (Bohemian Knotweed). Other invasive and noxious weeds are listed in the Report.

In either Alternative 1 or Alternative 3, there is a risk of inadvertently transporting seeds and noxious plant material inadvertently with vehicle tires and worker foot traffic. The short duration of the work time, limited disturbance, and use of paved and compacted roads and lots, will minimize the potential spread. Disturbed areas will be returned to existing conditions and reseeded to prevent weed introduction. No action (Alternative 2) would not increase the number of vehicles or pedestrians in the project area and would not increase the already-present risk of spreading noxious weeds with the traffic that the site already experiences.

PHYSICAL ENVIRONMENT. At the bottom of this “Fish/Wildlife” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on fish and wildlife resources. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

5. FISH/WILDLIFE	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. Adverse effects to threatened/endangered species or their habitat?		X				
i. Introduction or exportation of any species not presently or historically occurring in the affected location?		X				
j. Other:		X				

Narrative:

The “species occurrences” chapter of Report lists six species of concern (SOC) that have been previously observed in the polygon that contains the project area. These include *Haemorhous cassinii* (Cassin’s Finch), *Coccothraustes vespertinus* (Evening Grosbeak), *Pipilo chlorurus* (Green-tailed Towhee), *Melanerpes lewis* (Lewis’s Woodpecker), *Ursus arctos* (Grizzly Bear), and *Centrocercus urophasianus* (Greater Sage-Grouse). None of these species were observed in the project area, but their known presence in the general area will be considered leading up to and during the project. Other observed species and potential species in the general area are listed in the Report. None of these species have been observed in the project area.

Based on a review of the [Montana Sage Grouse Habitat Conservation Program Manager](#), the proposed project is not mapped in an Executive Order (EO) area for sage grouse habitat. According to the map, Virginia City is an exempt community.

The site is an urban area surrounded by an existing residential neighborhood interspersed with a few government buildings, typical of a small rural community, with limited wildlife activity present other than the occasional wandering deer or turkey. The project’s scope of work includes work to the existing footprint of the building and ground disturbance around the immediate perimeter of the building to install drainage. The site will be returned to pre-construction conditions following the project. Under all three alternatives, no adverse effects to wildlife are anticipated.

HUMAN ENVIRONMENT. At the bottom of this “Noise/Electrical Effects” checklist, provide a narrative description and evaluation of the cumulative and secondary effects of noise and electrical activities. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

6. NOISE/ELECTRICAL EFFECTS	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Increases in existing noise levels?			X		Y	
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:		X				

Narrative: Under Alternatives 1 and 3, increased noise levels due to equipment associated with excavation work and masonry repairs will be confined to construction days during daylight hours, and are temporary and minor in scale with no lasting effects. No significant impacts to noise or electrical systems are anticipated, and the scope of work precludes interference with radio or television reception and operation. Under Alternative 2, no increase in existing noise level is anticipated.

HUMAN ENVIRONMENT. At the bottom of this “Land Use” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on land use. Even if you checked “none” in the above table, explain how you came to that conclusion. Attach additional pages of narrative if needed. Consider the immediate, short-term effects as well as the long-term effects.

7. LAND USE	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. A conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. A conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on, or relocation of, residences?		X				
e. Compliance with existing land policies for land use, transportation, and open space?		X				
f. Increased traffic hazards, traffic volume, or speed limits or effects on existing transportation facilities or patterns of movement of people and goods?		X				
g. Other:		X				

Narrative: No land use impacts will result from the proposed scope of work. The goal of the project is to renovate a much-neglected historic schoolhouse for on-going use as a school for working artists to learn, share and perfect their artistic pursuits and to support the existing local heritage tourism community. The proposed action will not alter or interfere with the productivity of existing land use of the area. It will not conflict with a designated natural area or area of unusual scientific or education importance. It will not conflict with existing land use, as the building is currently vacant.

Alternatives 1 and 3 may result in increased foot and vehicular traffic. Alternative 2 would not result in increased traffic hazards or volume.

HUMAN ENVIRONMENT. At the bottom of this “Risk/Health Hazards” checklist, provide a narrative description and evaluation of the cumulative and secondary effects of risks and health hazards. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects of the action as well as the long-term effects. Attach additional pages of narrative if needed.

8. RISK/HEALTH HAZARDS	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Effects on existing emergency response or emergency evacuation plan or create need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. Disturbance to any sites with known or potential deposits of hazardous materials?		X				
e. The use of any chemical toxicants?		X				
f. Other:		X				

NARRATIVE: The project will consist of repairs and improvements to the building’s exterior. The project scope of work does not include the use of hazardous substances. Construction debris will be limited mostly to damaged masonry materials, i.e. bricks and mortar, and disposed of properly. None of the three alternatives present human risk or health hazards.

HUMAN ENVIRONMENT. At the bottom of this “Community Impact” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on the community. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

9. COMMUNITY IMPACT	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other:		X				

Narrative: The proposed use directly supports and perpetuates existing deed restrictions encouraging on-going “public use” of the property. As a school for working artists, a focal point of the project is to diversify employment opportunities in the area. A secondary effect of Alternatives 1 and 3 may be increased foot and vehicular traffic volume related to reactivating a recently dormant building. As such, community impacts are believed to be positive and compatible with existing conditions.

HUMAN ENVIRONMENT. At the bottom of this “Public Services/Taxes/Utilities” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on public services, taxes and utilities. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

10. PUBLIC SERVICES/TAXES/UTILITIES	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. An effect upon, or result in a need for new or altered, governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If so, specify:		X				
b. Effects on the local or state tax base and revenues?		X				
c. A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Increased used of any energy source?		X				
e. Other.		X				
Additional information requested:						
f. Define projected revenue sources.	Rental fees, programming income, private contributions, and public grants					
g. Define projected maintenance costs.	Once the building is renovated, maintenance costs are estimated at \$500 monthly or \$6,000 annually.					

Narrative: The goal of the project is to renovate a much-neglected historic schoolhouse, thereby reducing impacts to public services including fire and police monitoring and energy usage. Fully renovated, the building will no longer qualify as “blighted” property and potential health and safety hazard to the community and be much more efficient to operate. The building is currently served by existing water, sewer, and electrical utilities. Proposed future improvements will include energy and water efficient appliances, HVAC equipment, and fixtures. No change to the tax status of the property is envisioned. The building is currently owned by the county and exempt from property taxes. As proposed, once stabilized the property will be acquired by the VC Schoolhouse Foundation, an IRS registered 501c3 charitable non-profit, and remain tax exempt. As such, impacts under Alternatives 1 and 3 to public services, taxes, and utilities are believed to be positive and compatible with the community. While the use of power tools may increase electricity consumption for the property during the project, that increase will be minimal and temporary. Gasoline consumption necessitated by travel for the work crews again will be minimal and temporary.

Alternative 2 will not result in these temporary increases in electricity and gasoline consumption.

HUMAN ENVIRONMENT. At the bottom of this “Aesthetics/Recreation” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on aesthetics & recreation. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

11. AESTHETICS/RECREATION	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)		X				
d. Adverse effects to any designated or proposed wild or scenic rivers, trails or wilderness areas?		X				
e. Other:		X				

Narrative: Beyond improving the appearance and function of a “blighted” building and maintaining the lawn area, no changes are anticipated to the cultural or aesthetic character of the community. As proposed, on-going use of the schoolhouse as a working artists facility directly supports the tourism goals described in the Virginia City tourism study (Business Plan) commissioned by the Montana Heritage Commission, a local state agency.

https://commerce.mt.gov/_shared/comm/MTHC/docs/ReportsUpdates/MHCBusinessPlan2021-2026.pdf

No designated nor proposed Wilderness Areas, Wild and Scenic Rivers, nor trails are in the immediate project area. https://data.fs.usda.gov/geodata/other_fs/wilderness/stateMap.php?stateID=MT and <https://www.rivers.gov/>

As such, aesthetics/recreation impacts under Alternatives 1 and 3 are believed to be positive and compatible with the community. No such positive impacts will occur under Alternative 2.

HUMAN ENVIRONMENT. At the bottom of this “Cultural/historical Resources” checklist, provide a narrative description and evaluation of the cumulative and secondary effects on cultural/historical resources. Even if you checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

12. CULTURAL/HISTORICAL RESOURCES	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical changes that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. Adverse effects to historic or cultural resources?		X				
e. Other:		X				

Narrative: The goal of the project is to renovate a much-neglected historic schoolhouse, a contributing resource within the Virginia City (VC) Historic District and National Historic Landmark. Refer to excerpt below from the property’s NR plaque. Utilizing NPS preservation standards and treatments, the proposed rehabilitation efforts will address chronic water contact issues, restore damaged exterior masonry elements, and minimize future damage to the building. As an early phase of a multi-phased rehabilitation effort, the objective is to address the building’s most immediate preservation issues, specifically water-induced erosion of exterior masonry features. As a NR-listed property within the VC Historic district all changes to the building’s exterior, beyond ordinary maintenance and repair, are subject to review and permitting by the local zoning-based design review program. All phases of the project will be subject to applicable design review regulations administered by the Town of VC, a Certified Local Government, and supported by the Montana SHPO. As such, impacts to cultural/historic resources under Alternatives 1 and 3 are believed to be positive and in-keeping with applicable preservation standards. Such positive impacts will not occur under Alternative 2.

Virginia City School

This Property Contributes to the Virginia City Historic District

Inscription. Professor Thomas Dimsdale, author of *The Vigilantes of Montana*, opened the first school in the gold camp in fall 1863. In 1864, a log cabin, built where the Methodist Church now stands, served for preaching on Sundays and school during the week. There were eighty-one registered students. Virginia City School District #1 organized in January 1866, and the first public school in Montana Territory opened in March. Sarah Raymond Herndon, later Madison County superintendent of schools, was the first teacher. She paid \$6.00 in “clean gold dust” to take an examination at home earning her teaching certificate. This school opened in January 1876. Designed by Loren Olds, architect of the Madison County Courthouse, the community built the four-room brick school for \$8,400. It is one of Montana’s oldest surviving schoolhouses. A 1910 addition accommodated increased enrollment. A severe earthquake in 1959 necessitated the removal of its wooden bell tower and prompted installation of larger windows to the north and south. The school closed its historic doors to the last students in 1976. Today, the building houses City Hall and county offices.



Photographed by Barry Swackhamer, August 5, 2022

1. Virginia City School Marker

HUMAN ENVIRONMENT. At the bottom of this “Summary Evaluation of Significance” checklist, provide a narrative description and evaluation of the cumulative and secondary effects. Even if you have checked “none” in the above table, explain how you came to that conclusion. Consider the immediate, short-term effects as well as the long-term effects. Attach additional pages of narrative if needed.

13. SUMMARY EVALUATION OF SIGNIFICANCE	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action, considered as a whole:						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. Have organized opposition or generate substantial public controversy?		X				
Additional information requested:						
g. List any federal or state permits required.	NONE					

Narrative: The relatively limited potential area of effect and straight-forward scope of work for the project contribute to the determination that the proposed activities will have no substantial cumulative effect to the area environment.

As a community asset, efforts to reactivate the local schoolhouse have been the source of numerous local newspaper articles and social media posts. To-date, public feedback has been very positive and supportive of these efforts to “breath new life into to a long dormant historic landmark”.

PART III. ENVIRONMENTAL CHECKLIST CONCLUSION SECTION

1. Discuss the cumulative and secondary effects of this project as a whole. These are impacts to the human environment that, individually, may be minor for a specific project, but, when considered in combination to other actions, may result in significant impacts.

As proposed, once the proposed work is completed later this year, there will be no noticeable change to the building or property, beyond a general improvement to the appearance of the exterior of the historic building, the introduction of gutters discretely attached to the eaves of the roof, and more activity in the building on a daily basis.

From a cumulative perspective, the proposed work will be the first major effort to rehabilitate the building in over 50 years since it ceased operation as the local schoolhouse in 1976. Hopefully, within a few years the interior and exterior of the building will have received long-needed investments and repairs to ensure on-going use for the next 150 years.

2. Based on the significance criteria evaluated in this Environmental Checklist (Part II), is an EIS required?

YES _____

NO X

If an EIS is not required, explain why the current checklist level of review is appropriate.

The checklist process allowed for consideration of the project's potential for effects on the physical and human environment. Through the course of the research required, no substantial or unmitigable potential adverse effects were identified. Instead, several benefits to resource were summarized in the review. The project will provide a long-term positive benefit to the cultural resource and the community.

The Montana Historical Society State Historic Preservation Office will initiate a 30-day public comment period for the project, a dedicated webpage with links to relevant documents, and a public meeting. All public comments will be duly considered and integrated in the final environmental checklist for the project. That final document will include: a description of the nature of the public comments received during the official public comment period; a number tally of comments in support of the project and the numbers against; and a summary of the most important comments received and responses to these comments. Copies of all public notices and comments received will be kept on file.

3. **Public Comment.** At minimum, public input to the proposed project must be solicited through a legal ad in a daily newspaper with widest circulation in the immediate project area. This ad must run for a minimum of one day with at least 30 days allowed for public comment. The ad must include a brief description of the proposed project with the name, address, and contact information of the project sponsor. Comments should be provided in writing. The public comment period for this project must have occurred within 24 months (2 years) of the grant submission deadline.

a). Please include a photocopy of the legal advertisement, showing the date on which it ran in the newspaper.

- b). Describe the total public involvement for this project beyond the legal ad. Projects may not be planned in isolation. The general public, adjacent landowners, and other interested parties should be involved from the onset. Promotion of public participation may be through newspaper articles and any other means available, such as public meetings, federal quarterly newsletters, TV programs, radio announcements, etc.
4. **Public Input Summary.** Please describe the nature of the public comments received during the official public comment period. Tally numbers of comments in support of the project and the numbers against. Summarize the most important comments received and your response to these comments. For example, if a reviewer made suggestions on how the project could be made better, how did you respond to that suggestion?
- a). Provide copies of all comments received.
- b). Changes to project design or scope of work based on public input.

GLOSSARY OF TERMS

Affected Environment – The aspects of the human environment that may change as a result of an agency action.

Alternative – A different approach to achieve the same objective or result as the proposed action.

Categorical Exclusion – A level of environmental review for agency action that do not individually, collectively, or cumulatively cause significant impacts to the human environment, as determined by rulemaking or programmatic review, and for which an EA or EIS is not required.

Cumulative Impacts – Impacts to the human environment that, individually, may be minor for a specific project, but, when considered in relation to other actions, may result in significant impacts.

Direct Impacts – Primary impacts that have a direct cause and effect relationship with a specific action, i.e. they occur at the same time and place as the action that causes the impact.

Environmental Assessment (EA) – The appropriate level of environmental review for actions that either does not significantly affect the human environment or for which the agency is uncertain whether an Environmental Impact Statement (EIS) is required.

Environmental Assessment Checklist – An EA checklist is a standard form of an EA, developed by an agency for actions that generally produce minimal impacts.

Environmental Impact Statement (EIS) – A comprehensive evaluation of the impacts to the human environment that likely would result from an agency action or reasonable alternatives to that action. An EIS also serves a public disclosure of agency decision-making. Typically, an EIS is prepared in two steps. The Draft EIS is a preliminary detailed written statement that facilitates public review and comment. The Final EIS is a completed, written statement that includes a summary of major conclusions and supporting information from the Draft EIS, responses to substantive comments received on the Draft EIS, a list of all comments on the Draft EIS and any revisions made to the Draft EIS and an explanation of the agency's reasons for its decision.

Environmental Review – An evaluation, prepared in compliance with the provisions of MEPA and the MEPA Model Rules, of the impacts to the human environment that may result as a consequence of an agency action.

Human Environment – Those attributes, including but not limited to biological, physical, social, economic, cultural, and aesthetic factors that interrelate to form the environment.

Long-Term Impact – An impact, which lasts well beyond the period of the initial project.

Mitigated Environmental Assessment – The appropriate level of environmental review for actions that normally would require an EIS, except that the state agency can impose designs, enforceable controls, or stipulations to reduce the otherwise significant impacts to below the level of significance. A mitigated EA must demonstrate that: (1) all impacts have been identified; (2) all impacts can be mitigated below the level of significance; and (3) no significant impact is likely to occur.

Mitigation – An enforceable measure(s), designed to reduce or prevent undesirable effects or impacts of the proposed action.

National Environmental Policy Act (NEPA) – The federal counterpart of MEPA that applies only to federal actions.

No Action Alternative – An alternative, required by the MEPA Model Rules for purposes of analysis, that describes the agency action that would result in the least change to the human environment.

Public Participation – The process by which an agency includes interested and affected individuals, organizations, and agencies in decision making.

Record of Decision – Concise public notice that announces the agency’s decision, explains the reason for that decision, and describes any special conditions related to implementation of the decision.

Scoping – The process, including public participation, that an agency uses to define the scope of the environmental review.

Secondary Impacts – Impacts to the human environment that are indirectly related to the agency action, i.e. they are induced by a direct impact and occur at a later time or distance from the triggering action.

Short-Term Impact – An impact directly associated with a project that is of relatively short duration.

Significance – The process of determining whether the impacts of a proposed action are serious enough to warrant the preparation of an EIS. An impact may be adverse, beneficial or both. If none of the adverse impacts are significant, an EIS is not required.

Supplemental Review – A modification of a previous environmental review document (EA or EIS) based on changes in the proposed action, the discovery of new information, or the need for additional evaluation.

Tiering – Preparing an environmental review by focusing specifically on narrow scope of issues because the broader scope of issues was adequately addressed in previous environmental review document(s) that may be incorporated by reference.

National Flood Hazard Layer FIRMette



111°56'46"W 45°17'50"N



1:6,000

111°56'9"W 45°17'25"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |
| OTHER FEATURES | | 20.2 Cross Sections with 1% Annual Chance |
| | | 17.5 Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| MAP PANELS | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |
| | | The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location. |



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/17/2025 at 8:08 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Application Form

Property name:	<u>Virginia City Schoolhouse</u>	Request Amount:	<u>\$40,000</u>
Address:	<u>313 East Idaho Street</u>	Matching Funds:	<u>\$4,000</u>
City:	<u>Virginia City</u>	Total Project Cost:	<u>\$44,000</u>
Zip Code:	<u>59755</u>		

Check boxes that apply:

Property is listed in the National Register individually or as contributing to a district.
Check [here](#) to see if your property is listed.

Virginia City Historic District

- Property is not listed in the National Register; the owner consents to their property being listed.
- The applicant is pursuing Federal Rehabilitation Tax Credits and has submitted a final draft Part 2 to SHPO.
- Applicant is the property's sole owner.
- Applicant co-owns the property and has attached a letter(s) approving this application signed by all co-owners.
- Applicant does not own the property and has attached an owner(s) letter(s) approving this application.
- Optional letters of support are attached.
- The owner(s)/applicant are aware of SHPO Grant stipulations that include:
 - compliance with The Secretary of the Interior's Standards and Guidelines for Archaeology and Preservation;
 - nomination of the property to the National Register if property is not already listed;
 - installation of a SHPO-provided National Register interpretive panel on grant-funded property;
 - SHPO review and inspection of property treatments for a duration based on the grant award;
 - the property and project are insured.
 - Subject property has no liens on it.
- Applicant understands that if selected, they will complete the Montana Environmental Protection Act (MEPA) process prior to SHPO awarding a grant.
- Applicant is submitting MEPA documents from a previous review of the same scope of work presented here.
- A copy of the fiscal sponsor's board resolution to sponsor this application is attached (if applicable).
- All application materials and supporting documents must be submitted through [SHPO's Cultural Resources Database](#).

Applicant's name:	<u>Madison County</u>	Email:	<u>madco@madisoncountymt.gov</u>
Signature and date:	 <u>2/4/25</u>	Phone:	<u>406 843-4277</u>
Address:	<u>103 West Wallace Street</u>	City, State, Zip	<u>Virginia City, MT 59755</u>

Photos: The first four (4) photos should capture the building exterior from all four sides. Captions should indicate which side of the building is shown, e.g. *North Elevation*. An “elevation” is an exterior wall of a building.



Photo # 1 Photo subject: VC schoolhouse (north elevation)



Photo #2 Photo subject: VC Schoolhouse (south elevation)



Photo #3 Photo subject: VC Schoolhouse (west elevation)



Photo #4 Photo subject: VC Schoolhouse (east elevation)

Virginia City School

This Property Contributes to the Virginia City Historic District

Inscription. Professor Thomas Dimsdale, author of *The Vigilantes of Montana*, opened the first school in the gold camp in fall 1863. In 1864, a log cabin, built where the Methodist Church now stands, served for preaching on Sundays and school during the week. There were eighty-one registered students. Virginia City School District #1 organized in January 1866, and the first public school in Montana Territory opened in March. Sarah Raymond Herndon, later Madison County superintendent of schools, was the first teacher. She paid \$6.00 in "clean gold dust" to take an examination at home earning her teaching certificate. This school opened in January 1876. Designed by Loren Olds, architect of the Madison County Courthouse, the community built the four-room brick school for \$8,400. It is one of Montana's oldest surviving schoolhouses. A 1910 addition accommodated increased enrollment. A severe earthquake in 1959 necessitated the removal of its wooden bell tower and prompted installation of larger windows to the north and south. The school closed its historic doors to the last students in 1976. Today, the building houses City Hall and county offices.



Photographed by Barry Swackhamer, August 5, 2022

1. Virginia City School Marker

Photo #5 Photo subject: VC Schoolhouse National Register plaque

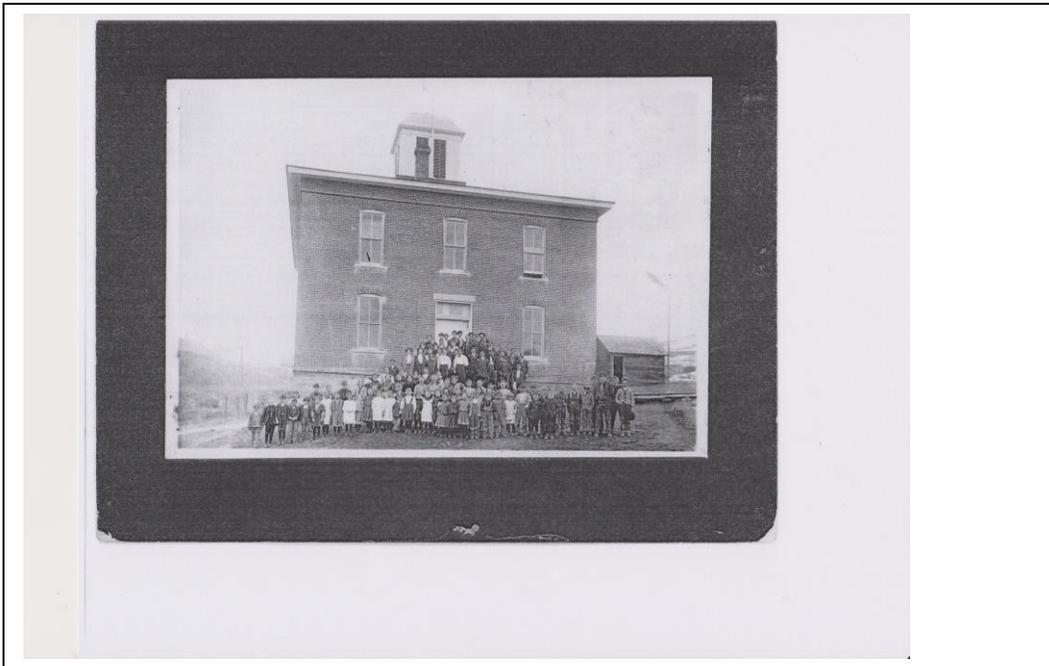
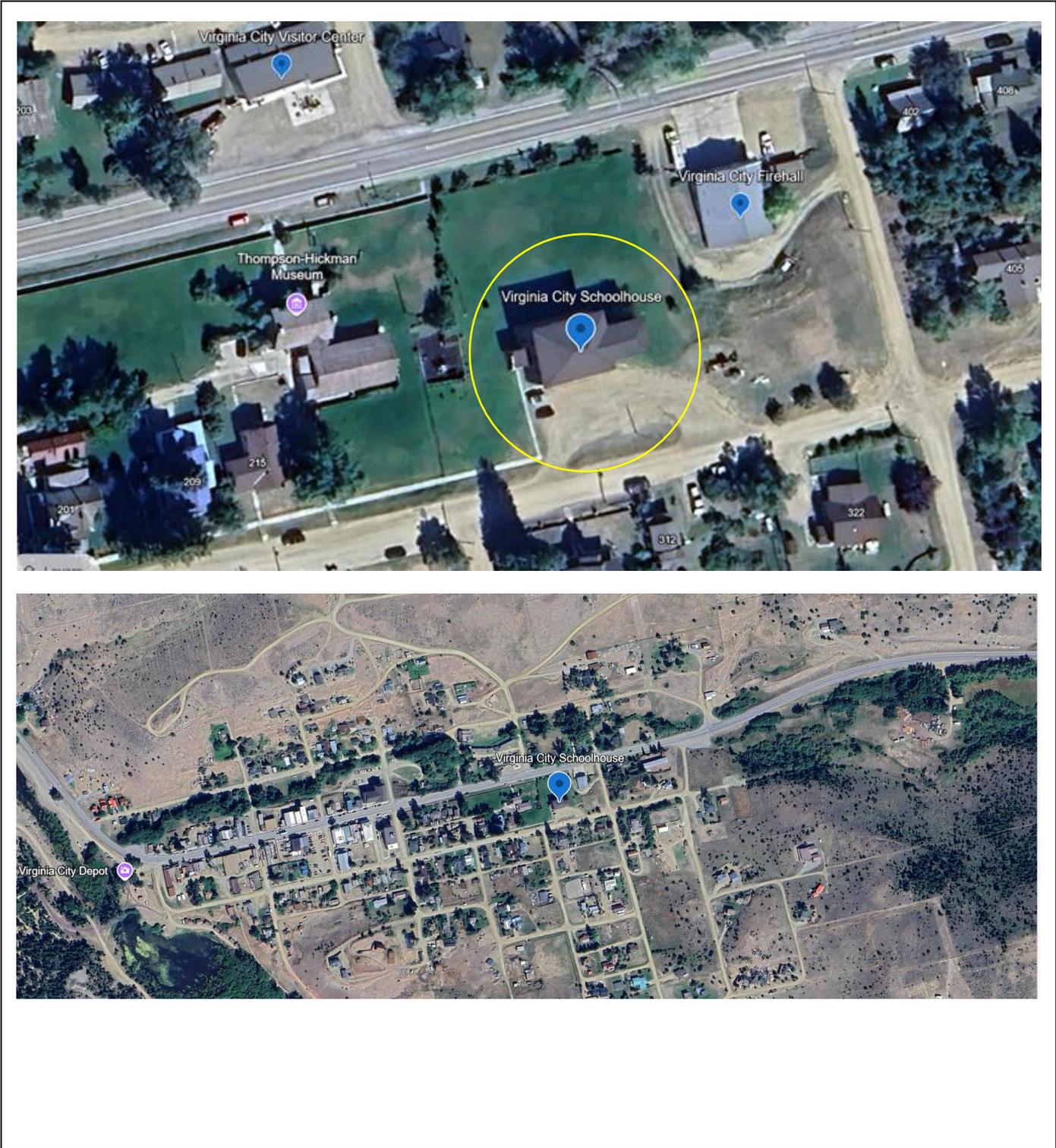


Photo #6 Photo subject: VC Schoolhouse c1880 (west elevation)

Site Plan: Depict the property's physical context. Google maps are acceptable. Mark the property clearly on the map.



Historic Significance: What qualities make the property significant? Explain the property’s significant associations with any (a) significant events or patterns of history, (b) significant persons, and/or (c) significant achievements or representative examples of architectural styles, trends, architects, or engineering. *Limit: 2500 characters*

The Virginia City Schoolhouse is listed on the National Register (NR) as a contributing historic property within the Virginia City Historic District. A NR plaque is present on the northwest corner of the building. The two-story masonry brick building was constructed in 1876 to replace a smaller log structure in town and served as Virginia City's schoolhouse for the next century. As such, it bears the distinction of being associated with Montana's first school district, and the oldest surviving public high school building in the state.

The mid-1870s must have been a very interesting period for Virginia City (VC). In 1875, as the trappings of the territorial capital slowly rolled out of town toward Helena, the Madison County Courthouse and the Virginia City Schoolhouse were rising in the background. Both buildings were designed by Loren B. Olds, a prolific local architect, and constructed by William Thompson, a well-established local builder. Both were early pioneers in the Territory applying their talents to designing and constructing Virginia City’s oldest and most prominent buildings including the Masons Lodge (1867).

Unlike the courthouse and Masons Lodge, the school was never intended to be an architectural showpiece. By virtue of its simple design and conspicuous setting on a hillside surrounded by a large green lawn, graced with an elegant belltower, this handsome, yet austere, building speaks of a time when Virginia City was a prosperous growing community. It also illustrates the importance to the community of a good education and a rudimentary understanding of reading, writing, and arithmetic. The schoolhouse proudly served that function until 1976, when the local population dropped below 200, and local children were then bused to Ennis.

Today, the schoolhouse remains a quiet testament of the community’s early resolve to invest in the construction of a “proper” school for the benefit of local children. In spite of changes to the exterior, necessitated by expanding enrollment (1910 addition) and earthquake damage (1959 Hebgen Lake quake), the schoolhouse still conveys the importance of its function-built design - the safe and efficient education of children, K-12 and serves as a cultural and architectural landmark within the community and surrounding historic district.

Following closure as a school, the building served various governmental functions for the Town of Virginia City and Madison County, its current owner, until 2009. Since then, under the cloud of condemnation as a safety hazard due to lingering structural concerns, the building has sat empty, relegated to a mere cold store facility. The building, in its current condition, was deemed unsafe for on-going public use. Out of an abundance of caution, the county chose to mothball the building and explore options to sell or give the building to an appropriate new owner. After 15 years of vacancy, the building is currently leased to a local non-profit organization dedicated to ensuring its future as an arts center. It is now occupied by two local artists as studio space, with plans to renovate the entire building as space for additional artistic pursuits in support of Virginia City’s vibrant heritage tourism economy.

Architectural Description: An architectural description reflects the building’s setting, shape and form, number of stories, structural, cladding, and finish materials, and architectural features such as windows, brackets, porches, built-ins, etc. Describe the property as it looks today and its condition. List dates of original construction, historic, or contemporary modifications. *Limit: 3000 characters*

The 1876 schoolhouse is a two-story structural brick building with a hipped asphalt-shingled roof, roughly 6500 square feet in total size. It sits on a massive, locally quarried, stone foundation located on the western half of Block 188, off East Idaho Street, surrounded by a large 6-lot lawn area. Bricks used in the building’s construction are laid up in a common bond pattern. They are of the low-fired “soft” variety, typical of this period, locally manufactured using wood-fired kilns.

The basic building is rectangular in shape with a rectangular eastside brick addition constructed in 1910. True to its austere design and utilitarian function, the building was designed with simple wooden trim elements and a modest brick detailing. A graceful belltower was removed due to structural damage and weight load concerns following the 1959 earthquake. Despite the introduction of the westside porch and eastside addition in 1910 and contemporary metal windows in 1960s, the building’s form and massing still complement the historic setting and the surrounding neighborhood. Materials used in the 1910 additions were similar to those employed in the original construction. The large metal windows are now over 65 years old and have taken on history of their own, plus they provide great light and passive solar value.

West elevation: The main entry was originally on the west elevation framed by a shed-roofed porch several steps above grade. A simple wooden slab door leads into the building with a single-light transom above. On each side of the porch there is a double hung 4/4 window on the first floor with three double hung 4/4 windows spaced across the second floor. The windows are set in segmental arches with brick sills and wooden infill framing.

North and South elevations: On the first and second floors of both elevations there are large 24—light windows with metal sashes. These units were installed in 1960 following partial collapse of the adjacent walls due to the 1959 earthquake. Three across original double hung windows on both levels and elevations were removed at that time.

East elevation/addition: The later addition on the east does not extend quite as far to the south or north as the main building. In the south recess there is a small brick vestibule with a wooden slab door and single-light transom above that now serves as the primary entrance to the building with convenient at-grade access. On the addition’s south side, first floor level there is a double hung 4/4 window and on the second floor a 4/4 window and a door leading to a metal fire escape. On the east side of the addition there are two double hung 4/4 windows in segmental arches on both first and second floors, and in the main building north of the addition there is a single double hung 4/4 window on each floor. On the north wall of the addition there is a double hung 4/4 window on each floor; west of these windows there is a smaller double hung 4/4 window that illuminates an internal stairwell. In the foundation there is a small window and a small wooden gable—roofed structure over a stairway to the basement. On the north side of the main building west of the 24-light windows there are two small 4—light windows, and a door into the basement area.

Due to moisture-induced erosion, brickwork along lower sections of the south and west wall are severely deteriorated. The deterioration appears to have only impacted the outer wythe layer and is repairable. Most of the earthquake damage was repaired in the 1960s, but signs of seismic induced settling and cracking are still present in various locations, especially along the east wall. Engineering reports commissioned in 1994 and 2008 recommended localized brick repair in these sections and the use of veneer ties throughout to stabilize the building.

Project Summary: Describe the scope of work, its importance to the property and community, and how you will accomplish it. *Limit: 750 characters*

After 15-years of vacancy, this cultural landmark is poised for a multi-phased rehabilitation effort to ensure its on-going use as school, in this case, for working artists to learn and create. The project will address the building’s most immediate preservation needs, specifically brick deterioration due to poor site drainage and the absence of gutters. The county, in cooperation with the VC Schoolhouse Foundation, will use the requested grant funds to retain contractors to install a drainage system near the foundation, gutters at the eaves, and repair brick deteriorated along the south and west sides of the building. Following on the heels of successful Phase 1 efforts to reactivate the building, proposed Phase 2 work will address chronic drainage problems, repair “soft” brick and mortar deterioration, and improve the building’s overall appearance and functionality.

Budget Table & Narrative: Provide a budget overview including estimates based on verifiable, reasonable, and allowable costs. Explain the basis of estimates listed in the table, how you plan to fund the project combining SHPO funds and other sources. List all other sources and whether they are secured. The value for in-kind services is \$30.84 per hour, and up to \$100 per hour for professional in-kind services. *Limit: 1000 characters*

	SHPO Funds	Matching Cash	Matching In-Kind	Total
Labor (including materials per contractor estimates)	\$37,000			\$37,000
Materials				
Reporting/Planning			\$1,500	\$1,500
Other (Design & construction oversight fee, 8%)	\$3,000			\$3,000
Lift rental		\$2,500		\$2,500
Total	\$40,000	\$2,500	\$1,500	\$44,000

Grant Funds: Contracted work (based on estimates from licensed and insured contractors):

1. \$10,000 - Construct drainage system: retain an excavation contractor to dig a trench, approximately 100 feet long and 2 feet wide, along the southside of the building foundation lined with waterproof fabric and coarse rock, sloped to create positive drainage around the foundation, and backfilled with coarse gravel to the original grade.
2. \$12,000 - Install gutter system: retain a gutter contractor to install approximately 300 linear feet of aluminum K-style gutters (\$40/LF) around the perimeter of the eaves including 6 box-type downspouts, or as needed.
3. \$15,000 – Replace deteriorated brickwork: retain an experienced brick mason to match existing materials and replace damaged bricks, as needed, and repoint mortar to a height of 4 feet along 100 feet of the south wall and 20 feet of the west wall (480 SF @ \$31.25/SF).
4. \$3,000 - Project planning, design, and oversight: retain a licensed and insured general contractor (8% fee) to finalize design and specifications and oversee work of building contractors.

Sub-total = \$40,000

Matching Funds: \$4,000 including Lift rental (\$2,500 existing cash (secured), two 35' lifts for 2 days) + Grant Admin. (\$1,500 in-kind (secured), 30 hours at \$50/hr)

Project Total = \$44,000 (with 10% match)

Project timeline: List the start of work, estimate project milestones, and completion of work. Describe future phases beyond SHPO-funded work. Limit: 2500 characters

Tasks & Schedule (bolded items apply to this SHPO grant request, Phase 2 Part A)

Phase 1 – Reactivate Building (July – December 2024), Building cleared of debris and utilities repaired/restored, Milestone: Work completed January 2025, at a total cost of over \$10,000 cash and \$5,000 of in-kind community labor.

Phase 2 – Repair Exterior (June 2025 – December 2026)

Part A (SHPO Grant – applied February 2025, pending award Spring 2025)

1. **Project planning, design, and oversight (June – October 2025): retain a licensed and insured general contractor to the finalize design and specifications, solicit bids, and oversee work of building contractors.**
2. **Construct drainage system (July - August 2025): retain an excavation contractor to dig a trench, approximately 100 feet long and 2 feet wide, along the southside of the building foundation lined with waterproof fabric and coarse rock, sloped to create positive drainage around the foundation, and backfilled with coarse gravel to the original grade.**
3. **Install gutter system (July - August 2025): retain a gutter contractor to install approximately 300 liner feet of aluminum K-style gutters around perimeter of eaves including 6 box-type downspouts, or as needed. (August 2025) Milestone: Moisture problem abated, brick repair can proceed.**
4. **Replace deteriorated brickwork (September - October 2025): retain an experienced brick mason to match existing materials and replace damaged bricks, as needed, and repoint mortar to a height of 4 feet along 100 feet of the south wall and 20 feet of the west wall.**
5. **Other:**
 - **Lift rental (two 35' lifts for 2 days during gutter installation)**
 - **Grant Administration, including compile MEPA report, prepare RFPs, solicit bids, track expenses, and submit reimbursement requests and progress updates. (June – December 2025) Milestone: Close-out project, submit final SHPO grant report (December 2025).**

Part B (Treacy Foundation Grant – apply Fall 2025, pending award Winter 2025)

1. Window restoration, door replacement, and additional brickwork repair (2026)

Phase 3 - Renovate Interior, for year-round use as artist studios and classrooms (2025 – 2028)

- A. Apply for CDBG Planning Grant to retain an architect and engineer to prepare Preliminary Architectural Report – PAR (March 2025)
- B. CDBG Planning grant, pending award June 2025
- C. Prepare PAR (July-December 2025)
- D. Apply for Montana Historic Preservation Grant (MHPG) for interior renovation (February 2026)
- E. MHPG grant, pending award June 2027
- F. Interior renovations (July 2027 – December 2028) Milestone: Building fully occupiable year-round.

Project Feasibility: Demonstrate how you will complete the project within the grant’s timeframe and with the given resources, while meeting SHPO Grant requirements. Justify your budget to show costs as necessary, reasonable, and allowable. Indicate whether the project will rely on professional or non-professional labor. *Limit: 3500 characters*

To ensure timely completion, this project will be directed by preservation professionals with experience rehabilitating historic properties in Montana and familiar with standard historic preservation standards and treatments. Jim Jarvis, a planning and grants specialist, has worked in the preservation field in Montana for over 25 years and serves on the board of the Virginia City Schoolhouse Foundation. The Foundation was created in 2025 for the specific purpose of leading efforts to revitalize this iconic property as a school for the arts. The Foundation is currently leasing and insuring the property with future plans to acquire ownership from the current owner, Madison County.

Over the past 6 months, over \$10,000 of Foundation funds and \$5,000 of in-kind community labor have been invested into Phase 1 of a proposed three phase project schedule. The focus of Phase 1 was to remove accumulated materials and debris stored in the building and reactivate existing utilities. As of the first of this year that work is now complete, and the building is occupied by two local artists as studio space with plans for additional artists as more of the facility comes online. While these recent investments are not eligible as match for this grant, they do illustrate a strong level of commitment to the project.

The proposed Phase 2 Part A project budget and 6-month construction schedule are based on estimates prepared by local building contractors with experience in drainage, gutter systems, and brick repair. We believe these costs estimates are consistent with industry standards and current market rate conditions for similar work. These contractors have worked on other historic properties in Virginia City and the area and proven willing and able to address the inherent challenges these projects present. Due to the aforementioned earthquake damage inflicted on the building and subsequent modifications relating to structural concerns, we do not envision a complete restoration of the building to its original late 19th century appearance, but strongly believe we can greatly improve its overall appearance and preserve surviving historic features. Requested SHPO grant funds, matched with the Foundation’s existing cash and in-kind resources, will be invested into critical preservation treatments, namely water damage abatement and brick and mortar repair. These treatments are crucial “first steps” in the overall success of this challenging endeavor. Note: As a previously disturbed and backfilled site, creating the currently elevated southside parking lot grade, archeological concerns are believed to be minimal.

As a community-based endeavor with modest resources, the proposed three phase project schedule will play out over the next 3-4 years depending on financial support from various grantors identified in the attached project timeline and on-going fundraising efforts directed by the Foundation. Based on the successful completion of Phase 1, we are confident that we have assembled a capable team and effective scope of work to finish the proposed Phase 2 Part A improvements.

Beyond the requested SHPO funds, we propose to request further grant support from the Treacy Foundation of Helena, Montana to address Phase 2 Part B improvements, specifically restoration of the original wood windows, replacement of existing non-historic doors, and additional brick repair on other elevations of the building. Concurrent with Phase 2 exterior improvements, we excited to have a PAR prepared to inform future grant writing efforts directed at Phase 3 of the project, rehabilitation of the building’s interior. The building has experienced significant alterations to “modernize” the interior, especially on the first floor. In the future, we envision removing many of these 1980s-era changes including, suspended ceilings and partition walls, to restore the overall scale and layout of the schoolhouse’s original interior. The interior of the second floor is mostly unchanged and historically intact, providing a unique glimpse into 1920s-era educational practices.

Project Urgency: How will the project address needs of and threats to the property and the surrounding community? What would become of the property if the project does not move forward? What preservation challenges exist in the community, and how will the project address those factors? *Limit: 2500 characters including spaces.*

Virginia City, as one of Montana’s first National Historic Landmarks, is renowned for the authenticity of its historic setting and associations with Montana’s frontier mining and settlement era. A rare living ghost town with a period of significance spanning from the 1860s through the 1920s. The schoolhouse was constructed in 1876 in the midst of this “golden age” of Virginia City’s development. Over the past century many historic properties have been restored or rehabilitated as the community has evolved from a mining-based economy to one focused on heritage tourism.

Unfortunately, the schoolhouse has not received that attention, primarily due to its isolated location on the eastside of the community, loss of purpose as a public school, and lingering structural concerns. After closure in the early 1970s, the property was given to the Town of Virginia City for use as a “City Hall” and annex for various county offices, followed by transfer to the county in the early 1990s. Due to this lack of stable ownership, the building has received only minimal investment consisting of interior modernizing for office use in the 1980s and a new roof in 2009, prior to being vacated as unsafe for on-going public use. This “in limbo” status for the past 50 years has resulted in the building’s exterior being in poor condition and the interior quite “muddled”. Due to the stigma of being “unsafe” and costly to repair, local governmental and existing preservation-minded non-profit organizations have been unwilling to take on the project. After years of inaction and neglect, the Foundation was created to lead this ambitious rehabilitation effort and establish a new community-oriented purpose for the property.

At this point, facing possible “condemned as a public safety hazard” the building is in urgent need of investment and rehabilitation. Two professional engineering assessments, commissioned over the past 30 years, have hinted at such a dire outcome, if appropriate structural upgrades are not made in a timely manner. Based on engineer recommendations, including extensive masonry stabilization, installation of veneer ties to connect walls to interior framing systems, and the abatement of lead paint and asbestos, the Foundation has developed a multi-phased strategy to bring the building back from “the edge of destruction” and identified a sustainable future for the property as a school for the arts. Foundation members are confident that with adequate investment the building can be sensitively rehabilitated and continue to serve as a cultural and architectural landmark with the community and contributing element of the surrounding historic district. The requested grant funds are the first step in this long overdue transformation from a “hazard” to an “asset”.

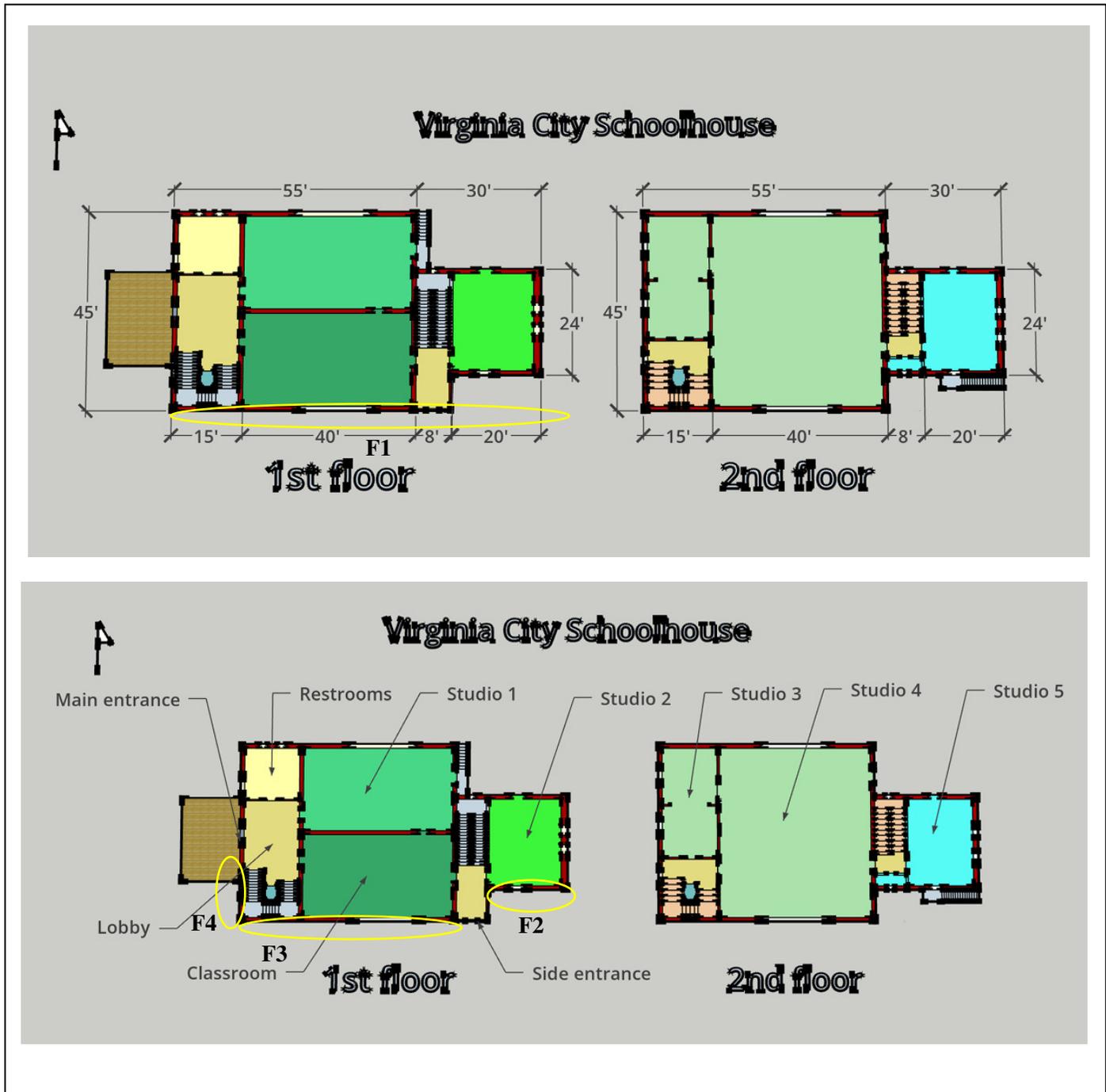
Project Sustainability: Explain the project’s long-lasting benefits to the property, and how the property owner intends to maintain the property. How will the project sustain its economic benefit to the community? *Limit: 2500 characters including spaces.*

The Foundation was formed with the expressed purpose to rehabilitate the schoolhouse building for long term use as a center for the arts with an emphasis on creating a year-round facility for working artist studios and learning spaces for workshops and presentations. In 2024, to initiate this effort the Foundation entered into a 1-year lease with the county, with the option to extend, during which 501c3 non-profit status has been established, the building cleared of debris and utilities reactivated to allowed for limited use as artist studios on the first floor, and grant funds applied for to begin rehabilitation of the entire building.

The long-term goal is to transfer ownership of the property and building to the Foundation for use as the home of the Virginia City Art School (VCAS). The VCAS, originally formed in the 1960s by renown watercolor artist Hilton Leech, has historical connections to the community. The VCAS is intended to complement Virginia City’s well-established reputation as a heritage tourism mecca by offering a place for local residents and visitors to explore artistic pursuits, whether visual arts, music, or literature, immersed in a captivating historic setting. Much like the Scottsdale School for the Arts in Arizona or the Emerson Center for the Arts in Bozeman, the VCAS is envisioned as a self-sustaining facility to celebrate and nurture artistic development in all its forms. Economic sustainability will be achieved through studio and event space rentals, workshop fees, art club memberships, and special event admissions, augmented by on-going fundraising efforts by the Foundation.

With an overarching vision of preserving the schoolhouse, sharing its story, and expanding Virginia City’s vibrant summertime tourism season into the shoulder seasons and eventually year-round, the VCAS will build upon the programing of existing cultural attractions, including the nearby Elling House Arts and Humanities Center, the Thompson-Hickman Library and Museum, and the Virginia and Nevada City open-air museums.

Photo Key: Photos are necessary to show the architectural features described in the **Detailed Project Description** in the next section. Plot each photo location on the relevant floorplan with the photo number and view direction.



Site plan with exterior photo locations

VC Schoolhouse floorplan, proposed room layout, and feature photo key (yellow ovals).

Photo Key: Photos are necessary to show the architectural features described in the **Detailed Project Description** in the next section. Plot each photo location on the relevant floorplan with the photo number and view direction.



Floor level:

Feature 1 (F1): Overview of south wall showing brick deterioration and elevated grade near foundation.

Photo Key: Photos are necessary to show the architectural features described in the Detailed Project Description in the next section. Plot each photo location on the relevant floorplan with the photo number and view direction.



Floor level:

Feature 2 (F2): Close up of brick deterioration, near southeast corner.

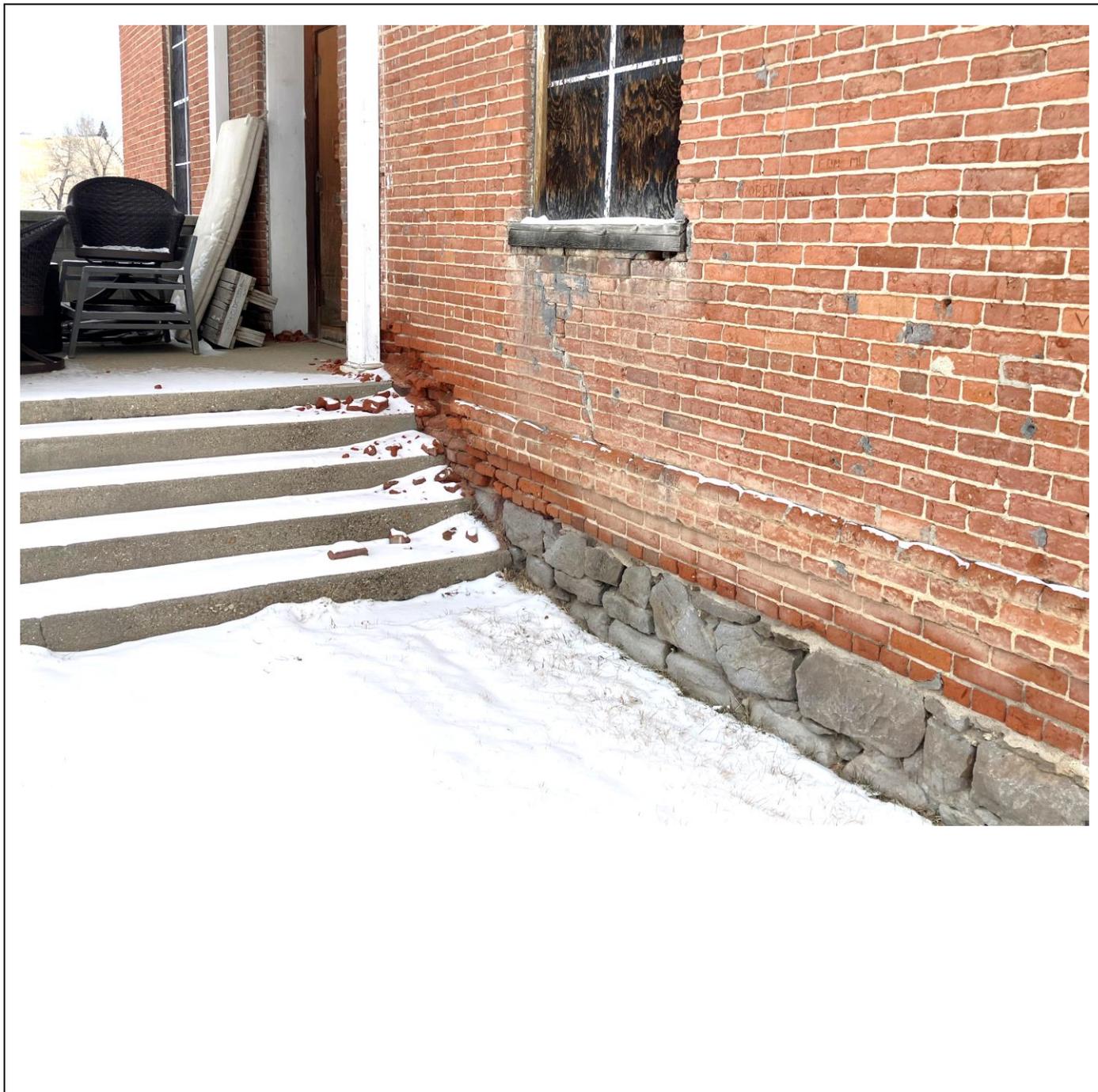
Photo Key: Photos are necessary to show the architectural features described in the **Detailed Project Description** in the next section. Plot each photo location on the relevant floorplan with the photo number and view direction.



Floor level/Roof:

Feature 3 (F3): Close-up of brick deterioration, near southwest corner.

Photo Key: Photos are necessary to show the architectural features described in the **Detailed Project Description** in the next section. Plot each photo location on the relevant floorplan with the photo number and view direction.



Floor level/Roof:

Feature 4 (F4): Close-up of brick deterioration, west wall near main entrance.

Detailed Project Description – Describe all aspects of the project by feature, including items not paid for by SHPO funds. Examples of features are foundation, masonry, siding, roof, windows, entries, finishes, flooring, trim, stairs, mechanical, electrical, plumbing, interior spaces, etc. Copy and renumber tables as needed. Drawings are optional and may be provided as a PDF attachment and referenced in the “drawing number(s).”

1. Feature: South side: Elevated grade Date of feature: February 3, 2025
Photo Number(s): F1 Drawing Number(s): _____

Describe the feature and its condition:

Overview of south wall showing brick and mortar deterioration and elevated grade. Photo 6 above, a historic image from the 1880s shows the original grade around the building, approximately 3 feet lower on the uphill (south) side of the building when compared to the F1 image from today. Over the past 150 years, it appears the grade was filled in around the foundation to create a level parking/playground area along the south side. As a result, the ground surface is now level with the bottom course of the brick wall in this area. This has allowed snow to pile up at the base of the wall and roof drainage to splash directly on the adjacent brickwork causing extensive brick deterioration and mortar loss.

Describe proposed work and the impact that work will have on the feature:

Construct a 100' foot long rock and gravel filled, PVC fabric lined, drainage trench along entire south wall to avoid water ponding against the foundation and collect and divert drainage around building to the east and west side yard areas. Gutters and downspouts will be installed around the roof perimeter to eliminate water splashing up against the building. The overall effect will be to protect the stone foundation and brick walls for excessive water contact and prevent further brick and mortar deterioration. Wherever possible, the existing southside grade will be lowered to provide more separation from brickwork. Note: The only existing gutters on the building are a small section located on the southside vestibule, above the side entrance. These will be inspected and repaired as part of gutter installation on the main roof.

2. Feature: Brickwork: Close up SE corner Date of feature: February 3, 2025
Photo Number(s): F2 Drawing Number(s): _____

Describe the feature and its condition:

Due to poor drainage, described above, extensive brick deterioration and mortar loss are evident near the SE corner of the building, below the existing fire escape.

Describe proposed work and the impact that work will have on the feature:

An experienced mason with preservation training will be hired to replace deteriorated bricks in this area, as needed, to a height no more than 4 feet, and the entire section repointed. Careful attention will be made to match existing brick and mortar composition and color. As proposed, the mason has sources of “soft” bricks salvaged from previously demolished buildings to ensure a good color match. Note: Foundation stonework will be repointed as needed.

3. Feature: Brickwork: Close up of SW corner Date of feature: February 3, 2025
Photo Number(s): F3 Drawing Number(s): _____

Describe the feature and its condition:

Due to poor drainage, described above, extensive brick deterioration and mortar loss are evident near the SW corner of the building on both sides of the 1960s window infill work.

Describe proposed work and the impact that work will have on the feature:

An experienced mason with preservation training will be hired to replace deteriorated bricks in this area, as needed, to a height no more than 4 feet, and the entire section repointed. Careful attention will be made to match existing brick and mortar composition and color. As proposed, the mason has sources of "soft" bricks salvaged from previously demolished buildings to ensure a good color match. Note: Foundation stonework will be repointed as needed.

4. Feature: Brickwork: Close up of west wall Date of feature: February 3, 2025
Photo Number(s): F4 Drawing Number(s): _____

Describe the feature and its condition:

Due to poor drainage, described above, extensive brick deterioration and mortar loss are evident along the base of the west wall, near the main entrance and porch.

Describe proposed work and the impact that work will have on the feature:

An experienced mason with preservation training will be hired to replace deteriorated bricks in this area, as needed, to a height no more than 4 feet, and the entire section repointed. Careful attention will be made to match existing brick and mortar composition and color. As proposed, the mason has sources of "soft" bricks salvaged from previously demolished buildings to ensure a good color match. Note: Foundation stonework will be repointed as needed.



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Latitude	Longitude
45.28813	-111.93092
45.30643	-111.95371

Summarized by:

(Custom Area of Interest)



Suggested Citation

Montana Natural Heritage Program. Environmental Summary Report.
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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			
Model Icons	Habitat Icons	Range Icons	Num Obs
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	



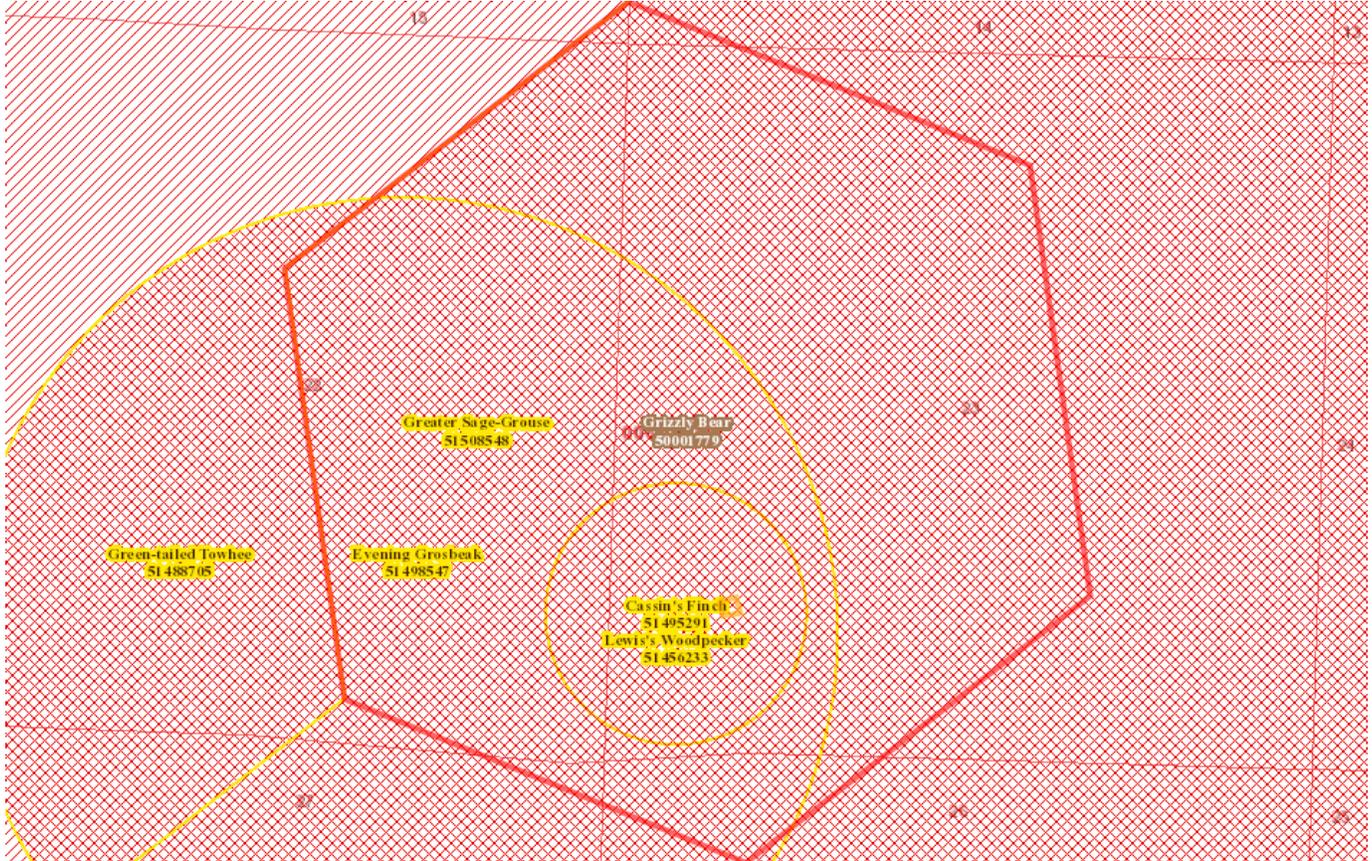
Latitude 45.28813
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45.30643 -111.95371

Native Species

Summarized by: (Custom Area of Interest)

Filtered by:

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



Species Occurrences

	USFWS Sec7	# SO	# Obs	Predicted Model	Range
B - Cassin's Finch (<i>Haemorhous cassinii</i>) SOC		1	5		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S4 USFWS: MBTA; BCC10 FWP SWAP: SGCN3 PIF: 3 Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to be conservative about encompassing the courtship and foraging distance from nesting areas and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Dec 26, 2024) Predicted Models: 100% Moderate (inductive)					
B - Evening Grosbeak (<i>Coccothraustes vespertinus</i>) SOC		1	4		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA; BCC10 FWP SWAP: SGCN3 Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 125 meters in order to encompass the breeding 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: Dec 26, 2024) Predicted Models: 100% Moderate (inductive)					
B - Green-tailed Towhee (<i>Pipilo chlorurus</i>) SOC		1	1		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PIF: 3 Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 125 meters in order to encompass the breeding 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: Dec 26, 2024) Predicted Models: 100% Moderate (inductive)					

<p>B - Lewis's Woodpecker (<i>Melanerpes lewis</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G4 State: S2B USFWS: MBTA; BCC10; BCC17 USFS: Species of Conservation Concern in Forests (HLC) BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 2</p> <p>Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 300 meters in order to encompass the likely foraging area used by breeding adults around the nest tree and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Dec 20, 2024)</p> <p>Predicted Models: M 100% Moderate (inductive)</p>	<p>1 1</p> <p>S M</p>
<p>M - Grizzly Bear (<i>Ursus arctos</i>) SOC</p> <p>View in Field Guide View Range Maps</p> <p>Species of Concern - Native Species Global: G4 State: S3 USFWS: LT BLM: THREATENED FWP SWAP: SGCN2-3</p> <p>Delineation Criteria Species Occurrence polygons represent areas delineated by the U.S. Fish and Wildlife Service (USFWS) that encompass both home ranges and potential transitory movements based on verified sightings. Within these areas, the USFWS wants project proponents to consider whether the species "may be present" when evaluating the potential impacts of a project and to work with the USFWS to develop and implement best management practices to minimize or eliminate project effects on the species. (Last Updated: Dec 26, 2024)</p>	<p>1</p> <p>Not Assessed Y</p>
<p>B - Greater Sage-Grouse (<i>Centrocercus urophasianus</i>) SOC</p> <p>View in Field Guide View Range Maps</p> <p>USFS: Sensitive - Known in Forests (BD)</p> <p>Species of Concern - Native Species Global: G3G4 State: S2 Species of Conservation Concern in Forests (CG) BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 1</p> <p>Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, juveniles, or adults on a lek. Point observations are mapped in the center of a one-square mile hexagon to protect the exact locations of leks. The outer edges of this hexagon are then buffered by a distance of 6,400 meters in order to encompass a body of research indicating that females typically nest within this distance of a lek and that lek numbers are negatively impacted by fossil fuel drilling activities within this distance of a lek. If the locational uncertainty associated with the observation is greater than 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)</p>	<p>1</p> <p>Not Assessed Y</p>

Legend			
Model Icons	Habitat Icons	Range Icons	Num Obs
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 45.28813
Longitude -111.93092
45.30643 -111.95371

Native Species

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Other Observed Species

	USFWS Sec7	# Obs	Predicted Model	Range
B - Clark's Nutcracker (<i>Nucifraga columbiana</i>) SOC		2		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA USFS: Species of Conservation Concern in Forests (FLAT) FWP SWAP: SGCN3 PIF: 3 Predicted Models: 100% Moderate (inductive)				
B - Bald Eagle (<i>Haliaeetus leucocephalus</i>) SSS		2		
View in Field Guide View Predicted Models View Range Maps Special Status Species - Native Species Global: G5 State: S4 USFWS: BGEPA; MBTA USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE PIF: 2 Predicted Models: 100% Low (inductive)				
B - Great Blue Heron (<i>Ardea herodias</i>) SOC		3		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 Predicted Models: 100% Low (inductive)				
B - Hooded Merganser (<i>Lophodytes cucullatus</i>) PSOC		1		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4 USFWS: MBTA FWP SWAP: SGIN PIF: 2 Predicted Models: 100% Low (inductive)				
B - Franklin's Gull (<i>Leucophaeus pipixcan</i>) SOC		1	Not Assessed	
View in Field Guide View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA; BCC10; BCC11; BCC17 BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2				
B - Solitary Sandpiper (<i>Tringa solitaria</i>) SOC		1	Not Assessed	
View in Field Guide View Range Maps Species of Concern - Native Species Global: G5 State: S2B USFWS: MBTA				

Legend			
Model Icons	Habitat Icons	Range Icons	Num Obs
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	



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Native Species

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Other Potential Species

	USFWS Sec7	Predicted Model	Range
<p>M - Idaho Pocket Gopher (<i>Thomomys idahoensis</i>) PSOC</p> <p>View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4 State: SU FWP SWAP: SGIN</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>M - Long-legged Myotis (<i>Myotis volans</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4G5 State: S3</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>M - Merriam's Shrew (<i>Sorex merriami</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 FWP SWAP: SGCN3</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>M - North American Porcupine (<i>Erethizon dorsatum</i>) PSOC</p> <p>View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S3S4 FWP SWAP: SGIN</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>M - Pygmy Rabbit (<i>Sylvilagus idahoensis</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 BLM: SENSITIVE FWP SWAP: SGCN3</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>M - Uinta Ground Squirrel (<i>Urocitellus armatus</i>) PSOC</p> <p>View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: SU FWP SWAP: SGIN</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>M - Wyoming Ground Squirrel (<i>Urocitellus elegans</i>) PSOC</p> <p>View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: SU</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>B - Pinyon Jay (<i>Gymnorhinus cyanocephalus</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G3 State: S3 USFWS: MBTA; BCC10; BCC17 FWP SWAP: SGCN3</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>I - Bombus suckleyi (<i>Suckley's Cuckoo Bumble Bee</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G2G3 State: S1 USFWS: P</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>I - Rhyacophila betteni (<i>Betten's Free-living Caddisfly</i>) SSS</p> <p>View in Field Guide View Predicted Models View Range Maps Special Status Species - Native Species Global: G2G4 State: S3S4</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>V - Draba densifolia (<i>Dense-leaf Draba</i>) SOC</p> <p>View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (BD, BRT) Species of Concern - Native Species Global: G5 State: S2 Species of Conservation Concern in Forests (CG, HLC) Plant Threat Score: Low CCVI: Moderately Vulnerable</p> <p>Predicted Models: 100% Moderate (inductive)</p>			
<p>V - Oxytropis lagopus var. conjugans (<i>Hare's-foot Locoweed</i>) PSOC</p> <p>View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4G5T3T4 State: S3S4</p> <p>Predicted Models: 100% Moderate (inductive)</p>			

<input type="checkbox"/> V - <i>Potentilla plattensis</i> (<i>Platte Cinquefoil</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 Plant Threat Score: No Known Threats CCVI: Highly Vulnerable Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> V - <i>Stellaria crassifolia</i> (<i>Fleshy Stitchwort</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S2 Plant Threat Score: No Known Threats Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> M - Spotted Bat (<i>Euderma maculatum</i>) PSOC	  
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4 State: S4 BLM: SENSITIVE FWP SWAP: SGCN3, SGIN Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> B - American White Pelican (<i>Pelecanus erythrorhynchos</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PIF: 3 Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> B - Broad-tailed Hummingbird (<i>Selasphorus platycercus</i>) PSOC	  
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4B USFWS: MBTA; BCC10 FWP SWAP: SGIN Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> B - Common Poorwill (<i>Phalaenoptilus nuttallii</i>) PSOC	  
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4B USFWS: MBTA FWP SWAP: SGIN PIF: 3 Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> B - Rufous Hummingbird (<i>Selasphorus rufus</i>) PSOC	  
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4 State: S4B USFWS: MBTA; BCC10 PIF: 3 Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> B - Veery (<i>Catharus fuscescens</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> I - <i>Danaus plexippus</i> (<i>Monarch</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S2S3 USFWS: P USFS: Sensitive - Migratory in Forests (BD, BRT, KOOT) Predicted Models:  100% Moderate (inductive)	
<input type="checkbox"/> M - Canada Lynx (<i>Lynx canadensis</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: LT; CH BLM: THREATENED FWP SWAP: SGCN3 Predicted Models:  100% Low (inductive)	
<input type="checkbox"/> M - Dwarf Shrew (<i>Sorex nanus</i>) PSOC	 
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4 State: S2S3 FWP SWAP: SGCN2-3 Predicted Models:  100% Low (inductive)	
<input type="checkbox"/> M - Little Brown Myotis (<i>Myotis lucifugus</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G3G4 State: S2S3 USFS: Sensitive - Known in Forests (BD, BRT, KOOT) FWP SWAP: SGCN3 Predicted Models:  100% Low (inductive)	
<input type="checkbox"/> M - Long-eared Myotis (<i>Myotis evotis</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 Predicted Models:  100% Low (inductive)	
<input type="checkbox"/> M - Silver-haired Bat (<i>Lasionycteris noctivagans</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G3G4 State: S3 Predicted Models:  100% Low (inductive)	
<input type="checkbox"/> M - Townsend's Big-eared Bat (<i>Corynorhinus townsendii</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE FWP SWAP: SGCN3 Predicted Models:  100% Low (inductive)	
<input type="checkbox"/> M - Western Spotted Skunk (<i>Spilogale gracilis</i>) PSOC	 
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: SU FWP SWAP: SGIN Predicted Models:  100% Low (inductive)	

B - Barrow's Goldeneye (<i>Bucephala islandica</i>) PSOC	View in Field Guide View Predicted Models View Range Maps	Potential Species of Concern - Native Species	Global: G5 State: S4 USFWS: MBTA FWP SWAP: SGIN PIF: 2
Predicted Models: 100% Low (inductive)			
B - Short-eared Owl (<i>Asio flammeus</i>) PSOC	View in Field Guide View Predicted Models View Range Maps	Potential Species of Concern - Native Species	Global: G5 State: S4 USFWS: MBTA; BCC11; BCC17 PIF: 3
Predicted Models: 100% Low (inductive)			
B - Western Screech-Owl (<i>Megascops kennicottii</i>) PSOC	View in Field Guide View Predicted Models View Range Maps	Potential Species of Concern - Native Species	Global: G4G5 State: S3S4 USFWS: MBTA FWP SWAP: SGIN PIF: 3
Predicted Models: 100% Low (inductive)			
R - Greater Short-horned Lizard (<i>Phrynosoma hernandesi</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G5 State: S3 BLM: SENSITIVE FWP SWAP: SGCN3, SGIN
Predicted Models: 100% Low (inductive)			
I - Margaritifera falcata (<i>Western Pearlshell</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G3G4 State: S2 USFS: Sensitive - Known in Forests (BD, BRT, KOOT, LOLO) Species of Conservation Concern in Forests (CG, HLC) BLM: SENSITIVE FWP SWAP: SGCN2
Predicted Models: 100% Low (inductive)			
V - Adoxa moschatellina (<i>Musk-root</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	USFS: Sensitive - Known in Forests (BD, LOLO) Global: G5 State: S3 Species of Conservation Concern in Forests (CG, HLC) Plant Threat Score: Low CCVI: Highly Vulnerable
Predicted Models: 100% Low (inductive)			
V - Astragalus terminalis (<i>Railhead Milkvetch</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G3 State: S2S3 USFS: Sensitive - Known in Forests (BRT) BLM: SENSITIVE Plant Threat Score: Unknown CCVI: Moderately Vulnerable
Predicted Models: 100% Low (inductive)			
V - Castilleja gracillima (<i>Slender Indian Paintbrush</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G3G4 State: S2 Plant Threat Score: Low CCVI: Highly Vulnerable
Predicted Models: 100% Low (inductive)			
V - Castilleja nivea (<i>Snow Indian Paintbrush</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G3 State: S3 Plant Threat Score: No Known Threats CCVI: Extremely Vulnerable
Predicted Models: 100% Low (inductive)			
V - Eleocharis rostellata (<i>Beaked Spikerush</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G5 State: S3 USFS: Species of Conservation Concern in Forests (CG, FLAT, HLC) Plant Threat Score: Unknown CCVI: Less Vulnerable
Predicted Models: 100% Low (inductive)			
V - Elodea bifoliata (<i>Long-sheath Waterweed</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G4G5 State: S2? Plant Threat Score: No Known Threats
Predicted Models: 100% Low (inductive)			
V - Erigeron linearis (<i>Linear-leaf Fleabane</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G5 State: S2 Plant Threat Score: Low CCVI: Less Vulnerable
Predicted Models: 100% Low (inductive)			
V - Erigeron parryi (<i>Parry's Fleabane</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G2G3 State: S2S3 USFS: Sensitive - Known in Forests (BRT) Plant Threat Score: No Known Threats CCVI: Moderately Vulnerable
Predicted Models: 100% Low (inductive)			
V - Noccaea parviflora (<i>Small-flowered Pennycress</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species	Global: G3 State: S3 USFS: Sensitive - Known in Forests (BRT) Plant Threat Score: Unknown CCVI: Highly Vulnerable
Predicted Models: 100% Low (inductive)			
V - Orobanche corymbosa (<i>Flat-topped Broomrape</i>) PSOC	View in Field Guide View Predicted Models View Range Maps	Potential Species of Concern - Native Species	Global: G4 State: S3S4 Plant Threat Score: No Known Threats
Predicted Models: 100% Low (inductive)			

V - Primula incana (<i>Mealy Primrose</i>) SOC	 
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 Plant Threat Score: High CCVI: Highly Vulnerable Predicted Models:  100% Low (inductive)	
V - Ranunculus hyperboreus (<i>High Northern Buttercup</i>) PSOC	 
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S3S4 Plant Threat Score: No Known Threats Predicted Models:  100% Low (inductive)	
M - Northern Hoary Bat (<i>Lasiurus cinereus</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G3G4 State: S3B BLM: SENSITIVE FWP SWAP: SGCN3 Predicted Models:  100% Low (inductive)	
B - Bobolink (<i>Dolichonyx oryzivorus</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA; BCC10; BCC11; BCC17 FWP SWAP: SGCN3 PIF: 3 Predicted Models:  100% Low (inductive)	
B - Brewer's Sparrow (<i>Spizella breweri</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models:  100% Low (inductive)	
B - Ferruginous Hawk (<i>Buteo regalis</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA; BCC17 BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models:  100% Low (inductive)	
B - Harlequin Duck (<i>Histrionicus histrionicus</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S2B USFWS: MBTA USFS: Sensitive - Known in Forests (BD, KOOT, LOLO) Sensitive - Migratory in Forests (BRT) FWP SWAP: SGCN2 PIF: 1 Predicted Models:  100% Low (inductive)	
B - Loggerhead Shrike (<i>Lanius ludovicianus</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models:  100% Low (inductive)	
B - Long-billed Curlew (<i>Numenius americanus</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA; BCC11 BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models:  100% Low (inductive)	
B - Sage Thrasher (<i>Oreoscoptes montanus</i>) SOC	  
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 3 Predicted Models:  100% Low (inductive)	
M - Wolverine (<i>Gulo gulo</i>) SOC	 7 Not Assessed: 
View in Field Guide View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFWS: LT USFS: Sensitive - Known in Forests (LOLO) BLM: THREATENED FWP SWAP: SGCN3	
B - Sprague's Pipit (<i>Anthus spragueii</i>) SOC	 7 Not Assessed:  
View in Field Guide View Range Maps Species of Concern - Native Species Global: G3G4 State: S3B USFWS: MBTA; BCC11; BCC17 BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 1	

Structured Surveys

Summarized by: *(Custom Area of Interest)*

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

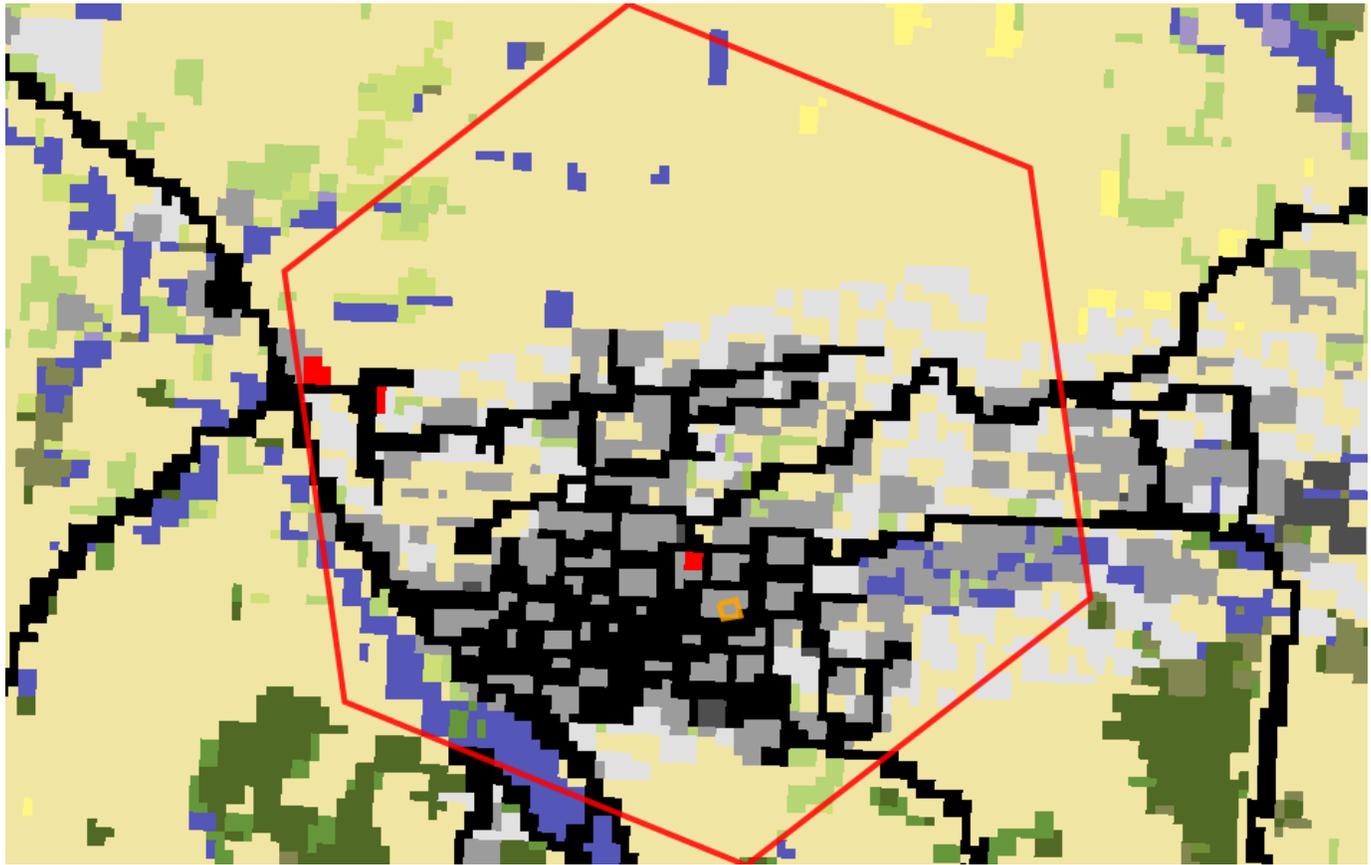
MTNHP does not typically manage information on structured surveys for plants; surveys for invasive species may be a future exception.

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

A-Nocturnal Calling Amphibian <i>(Nocturnal Breeding Amphibian Calling Survey)</i>	Survey Count: 7	Obs Count:	Recent Survey: 2009
E-Noxious Weed, Road-based <i>(Noxious Weed Road-based Visual Surveys)</i>	Survey Count: 2	Obs Count: 1	Recent Survey: 2004
P-Algal scraping <i>(Algal Scraping)</i>	Survey Count: 1	Obs Count: 56	Recent Survey: 2003

Land Cover

Summarized by: (Custom Area of Interest)



46% (293 Acres)

Shrubland, Steppe and Savanna Systems Sagebrush Steppe

Montane Sagebrush Steppe

This system dominates the montane and subalpine landscape of southwestern Montana from valley bottoms to subalpine ridges and is found as far north as Glacier National Park. It can also be seen in the island mountain ranges of the north-central and south-central portions of the state. It primarily occurs on deep-soiled to stony flats, ridges, nearly flat ridgetops, and mountain slopes. In general, this system occurs in areas of gentle topography, fine soils, subsurface moisture or mesic conditions, within zones of higher precipitation and areas of snow accumulation. It occurs on all slopes and aspects, variable substrates and all soil types. The shrub component of this system is generally dominated by mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*). Other co-dominant shrubs include silver sagebrush (*Artemisia cana* ssp. *viscidula*), subalpine big sagebrush (*Artemisia tridentata* ssp. *spiciformis*), three tip sagebrush (*Artemisia tripartita* ssp. *tripartita*) and antelope bitterbrush (*Purshia tridentata*). Little sagebrush (*Artemisia arbuscula* ssp. *arbuscula*) shrublands are only found in southwestern Montana on sites with a perched water table. Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) sites may be included within this system if occurrences are at montane elevations, and are associated with montane graminoids such as Idaho fescue (*Festuca idahoensis*), spike fescue (*Leucopoa kingii*), or poverty oatgrass (*Danthonia intermedia*). In areas where sage has been eliminated by human activities like burning, disking or poisoning, other shrubs may be dominant, especially rubber rabbitbrush (*Ericameria nauseosa*), and green rabbitbrush (*Chrysothamnus viscidiflorus*). Because of the mesic site conditions, most occurrences support a diverse herbaceous undergrowth of grasses and forbs. Shrub canopy cover is extremely variable, ranging from 10 percent to as high as 40 or 50 percent.

No Image

17% (106 Acres)

Human Land Use

Developed

Other Roads

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



16% (100 Acres)

Human Land Use

Developed

Low Intensity Residential

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



12% (76 Acres)

Human Land Use

Developed

Developed, Open Space

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



4% (25 Acres)

Wetland and Riparian Systems Floodplain and Riparian

Rocky Mountain Lower Montane-Foothill Riparian Woodland and Shrubland

This ecological system is found throughout the Rocky Mountain and Colorado Plateau regions. In Montana, it ranges from approximately 945 to 2,042 meters (3,100 to 6,700 feet), characteristically occurring as a mosaic of multiple communities that are tree-dominated with a diverse shrub component. It is dependent on a natural hydrologic regime, especially annual to episodic flooding. Occurrences are found within the flood zone of rivers, on islands, sand or cobble bars, and on immediate streambanks. It can form large, wide occurrences on mid-channel islands in larger rivers or narrow bands on small, rocky canyon tributaries and well-drained benches. It is also typically found in backwater channels and other perennially wet but less scoured sites, such as floodplains swales and irrigation ditches. In some locations, occurrences extend into moderately high intermountain basins where the adjacent vegetation is sage steppe. Dominant trees may include boxelder maple (*Acer negundo*), narrowleaf cottonwood (*Populus angustifolia*), Plains cottonwood (*Populus deltoides*), Douglas-fir (*Pseudotsuga menziesii*), peachleaf willow (*Salix amygdaloides*), or Rocky Mountain juniper (*Juniperus scopulorum*). Dominant shrubs include Rocky Mountain maple (*Acer glabrum*), thinleaf alder (*Alnus incana*), river birch (*Betula occidentalis*), redbud dogwood (*Cornus sericea*), hawthorne (*Crataegus spp.*), chokecherry (*Prunus virginiana*), skunkbush sumac (*Rhus trilobata*), Drummond's willow (*Salix drummondiana*), sandbar willow (*Salix exigua*), Pacific willow (*Salix lucida*), rose (*Rosa species*), silver buffaloberry (*Shepherdia argentea*), or snowberry (*Symphoricarpos species*). Exotic trees of Russian olive (*Elaeagnus angustifolia*) and saltcedar (*Tamarix species*) may invade some stands in southeastern and south-central Montana.

No Image

3% (17 Acres)

Human Land Use Developed

Major Roads

U.S. and State Highways that are not part of the National Highway System (NHS) Interstate network. This category includes entrance and exit ramps to NHS Interstate highways.



2% (13 Acres)

Grassland Systems Montane Grassland

Rocky Mountain Lower Montane, Foothill, and Valley Grassland

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

Additional Limited Land Cover

- 1% (6 Acres) [Rocky Mountain Subalpine-Montane Mesic Meadow](#)
- <1% (2 Acres) [High Intensity Residential](#)
- <1% (1 Acres) [Commercial / Industrial](#)
- <1% (1 Acres) [Rocky Mountain Lodgepole Pine Forest](#)
- <1% (1 Acres) [Low Sagebrush Shrubland](#)
- <1% (0 Acres) [Alpine-Montane Wet Meadow](#)
- <1% (0 Acres) [Rocky Mountain Montane-Foothill Deciduous Shrubland](#)

Wetland and Riparian

Summarized by: (Custom Area of Interest)



Wetland and Riparian Mapping

P - Palustrine

AB - Aquatic Bed		P - Palustrine, AB - Aquatic Bed	<i>Wetlands with vegetation growing on or below the water surface for most of the growing season.</i>
F - Semipermanently Flooded	4 Acres		
b - Beaver	1 Acres PABFb		
h - Diked/Impounded	3 Acres PABFh		
EM - Emergent		P - Palustrine, EM - Emergent	<i>Wetlands with erect, rooted herbaceous vegetation present during most of the growing season.</i>
A - Temporarily Flooded	7 Acres		
(no modifier)	7 Acres PEMA		
F - Semipermanently Flooded	<1 Acres		
h - Diked/Impounded	<1 Acres PEMFh		
SS - Scrub-Shrub		P - Palustrine, SS - Scrub-Shrub	<i>Wetlands dominated by woody vegetation less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.</i>
A - Temporarily Flooded	2 Acres		
h - Diked/Impounded	2 Acres PSSAh		
C - Seasonally Flooded	2 Acres		
h - Diked/Impounded	2 Acres PSSCh		

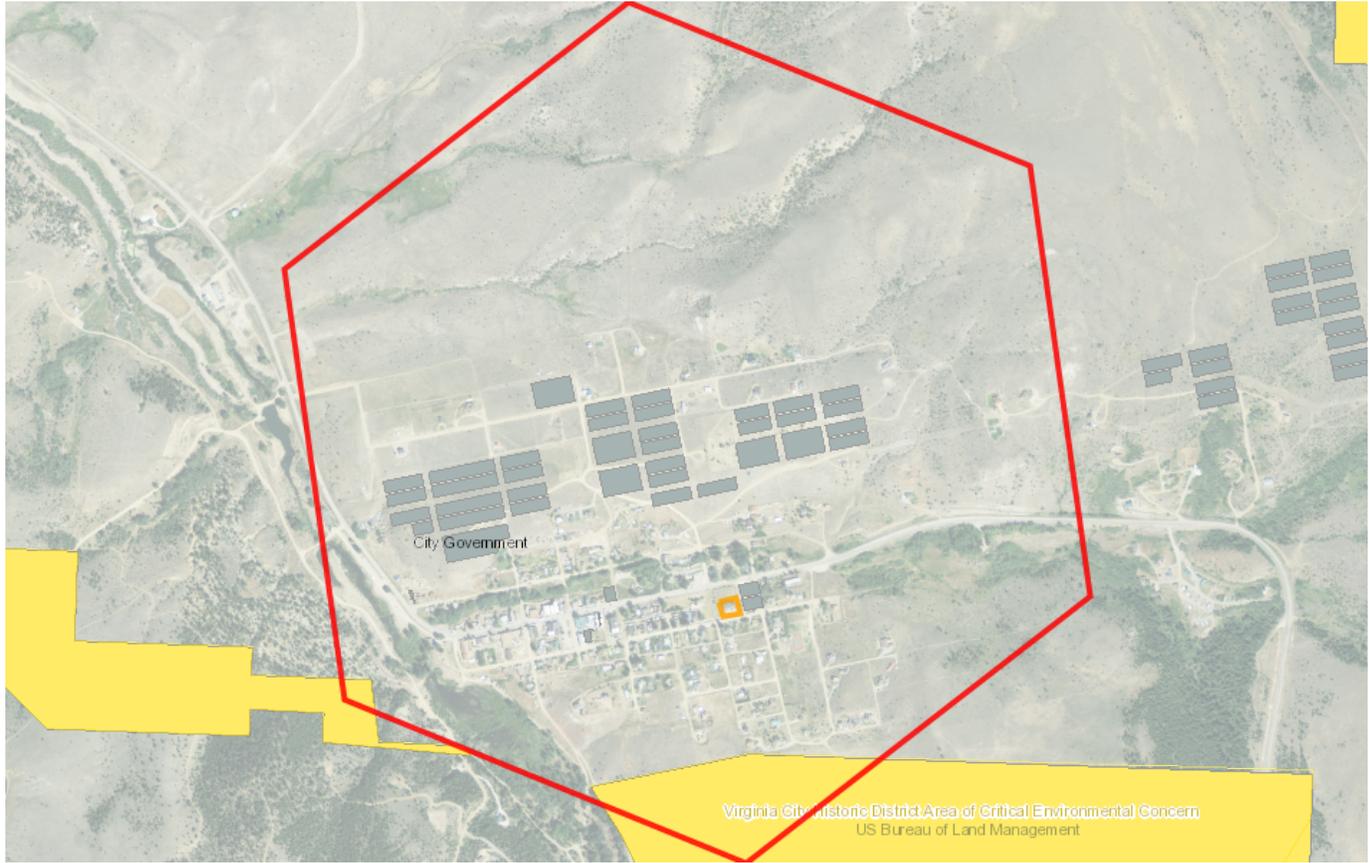
Rp - Riparian

1 - Lotic

SS - Scrub-Shrub		Rp - Riparian, 1 - Lotic, SS - Scrub-Shrub	<i>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.</i>
(no modifier)	5 Acres Rp1SS		
FO - Forested		Rp - Riparian, 1 - Lotic, FO - Forested	<i>This riparian class has woody vegetation that is greater than 6 meters (20 feet) tall.</i>
(no modifier)	8 Acres Rp1FO		

Land Management

Summarized by: (Custom Area of Interest)



Land Management Summary

	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
Public Lands	51 Acres (8%)			
Federal	22 Acres (3%)			
US Bureau of Land Management	22 Acres (3%)			
BLM Owned	22 Acres (3%)			
BLM Areas of Critical Environmental Concern				23 Acres
Virginia City Historic District Area of Critical Environmental Concern				23 Acres
Local	29 Acres (5%)			
Local Government	29 Acres (5%)			
Local Government Owned	29 Acres (5%)			
Private Lands or Unknown Ownership	589 Acres (92%)			



Biological Reports

Summarized by: *(Custom Area of Interest)*

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

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

- Greater Yellowstone Coordinating Committee. ***GYA Weed Mapping Update and Database Augmentation***. 2000-04.

Legend			
Model Icons	Habitat Icons	Range Icons	Num Obs
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 45.28813
Longitude -111.93092
45.30643 -111.95371

Invasive and Pest Species

Summarized by: (Custom Area of Interest)

	# Obs	Predicted Model	Range
Aquatic Invasive Species			
<input type="checkbox"/> V - Nymphaea odorata (<i>American Water-lily</i>) AIS			
View in Field Guide View Predicted Models View Range Maps Aquatic Invasive Species - Non-native Species Global: G5 State: SNA Predicted Models: 100% Suitable (introduced range) (deductive)			
Noxious Weeds: Priority 1A			
<input type="checkbox"/> V - Centaurea solstitialis (<i>Yellow Starthistle</i>) N1A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Optimal (inductive)			
<input type="checkbox"/> V - Isatis tinctoria (<i>Dyer's Woad</i>) N1A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Optimal (inductive)			
<input type="checkbox"/> V - Taeniatherum caput-medusae (<i>Medusahead</i>) N1A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1A - Non-native Species Global: G4G5 State: SNA Predicted Models: 100% Low (inductive)			
Noxious Weeds: Priority 1B			
<input type="checkbox"/> V - Echium vulgare (<i>Blueweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNR State: SNA Predicted Models: 100% Moderate (inductive)			
<input type="checkbox"/> V - Lythrum salicaria (<i>Purple Loosestrife</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: G5 State: SNA Predicted Models: 100% Moderate (inductive)			
<input type="checkbox"/> V - Polygonum cuspidatum (<i>Japanese Knotweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNR TNR State: SNA Predicted Models: 100% Low (inductive)			
<input type="checkbox"/> V - Polygonum x bohemicum (<i>Bohemian Knotweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNA State: SNA Predicted Models: 100% Low (inductive)			
Noxious Weeds: Priority 2A			
<input type="checkbox"/> V - Hieracium piloselloides (<i>Tall Hawkweed</i>) N2A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Moderate (inductive)			
<input type="checkbox"/> V - Rhamnus cathartica (<i>Common Buckthorn</i>) N2A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Moderate (inductive)			
<input type="checkbox"/> V - Hieracium aurantiacum (<i>Orange Hawkweed</i>) N2A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Low (inductive)			
<input type="checkbox"/> V - Hieracium praealtum (<i>Kingdevil Hawkweed</i>) N2A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Low (inductive)			
<input type="checkbox"/> V - Lepidium latifolium (<i>Perennial Pepperweed</i>) N2A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 100% Low (inductive)			

<input type="checkbox"/> V - Ranunculus acris (<i>Tall Buttercup</i>) N2A		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: G5 State: SNA Predicted Models:  100% Low (inductive)		
<input type="checkbox"/> V - Ventenata dubia (<i>Ventenata</i>) N2A		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models:  100% Low (inductive)		
Noxious Weeds: Priority 2B		
<input type="checkbox"/> V - Berteroa incana (<i>Hoary False-allysum</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Optimal (inductive)		
<input type="checkbox"/> V - Cynoglossum officinale (<i>Common Hound's-tongue</i>) N2B	1 	
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Optimal (inductive)		
<input type="checkbox"/> V - Lepidium draba (<i>Whitetop</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Optimal (inductive)		
<input type="checkbox"/> V - Linaria dalmatica (<i>Dalmatian Toadflax</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: G5 State: SNA Predicted Models:  100% Optimal (inductive)		
<input type="checkbox"/> V - Linaria vulgaris (<i>Yellow Toadflax</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Optimal (inductive)		
<input type="checkbox"/> V - Tanacetum vulgare (<i>Common Tansy</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Optimal (inductive)		
<input type="checkbox"/> V - Centaurea diffusa (<i>Diffuse Knapweed</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Moderate (inductive)		
<input type="checkbox"/> V - Centaurea stoebe (<i>Spotted Knapweed</i>) N2B	2 	
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Moderate (inductive)		
<input type="checkbox"/> V - Cirsium arvense (<i>Canada Thistle</i>) N2B	1 	
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: G5 State: SNA Predicted Models:  100% Moderate (inductive)		
<input type="checkbox"/> V - Convolvulus arvensis (<i>Field Bindweed</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Moderate (inductive)		
<input type="checkbox"/> V - Euphorbia virgata (<i>Leafy Spurge</i>) N2B	1 	
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Moderate (inductive)		
<input type="checkbox"/> V - Leucanthemum vulgare (<i>Oxeye Daisy</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Moderate (inductive)		
<input type="checkbox"/> V - Acroptilon repens (<i>Russian Knapweed</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Low (inductive)		
<input type="checkbox"/> V - Hypericum perforatum (<i>Common St. John's-wort</i>) N2B		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models:  100% Low (inductive)		

V - Potentilla recta (*Sulphur Cinquefoil*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Low (inductive)

Regulated Weeds: Priority 3

V - Bromus tectorum (*Cheatgrass*) **R3**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Optimal (inductive)

Biocontrol Species

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Moderate (inductive)

I - Aphthona nigricutis (*Black Dot Leafy Spurge Flea Beetle*) **BIOCNTL**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Moderate (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Moderate (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Moderate (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% Low (inductive)

I - Mecinus janthinus (*Yellow Toadflax Stem-boring Weevil*) **BIOCNTL**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)

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

Predicted Models:  100% 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.org

INTRODUCTION

The Montana Natural Heritage Program (MTNHP) is Montana's source for reliable and objective information on Montana's native species and habitats, emphasizing those of conservation concern. MTNHP was created by the Montana legislature in 1983 as part of the Natural Resource Information System (NRIS) at the Montana State Library (MSL). MTNHP is "a program of information acquisition, storage, and retrieval for data relating to the flora, fauna, and biological community types of Montana" (MCA 90-15-102). MTNHP's activities are guided by statute as well as through ongoing interaction with, and feedback from, principal data source agencies such as Montana Fish, Wildlife, and Parks, the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, the Montana University System, the US Forest Service, and the US Bureau of Land Management. Since the first staff was hired in 1985, the Program has logged a long record of success, and developed into a highly respected, service-oriented program. MTNHP is widely recognized as one of the most advanced and effective of over 60 natural heritage programs that are distributed across North America.

VISION

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

CORE VALUES

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

CONFIDENTIALITY

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

INFORMATION MANAGED

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

Data Use Terms and Conditions

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

Suggested Contacts for Natural Resource Management Agencies

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

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

Montana Fish, Wildlife, and Parks

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

Montana Department of Agriculture

General Contact Information: <https://agr.mt.gov/About/Office-Locations/Office-Locations-and-Field-Offices>

Noxious Weeds: <https://agr.mt.gov/Noxious-Weeds>

Montana Department of Environmental Quality

Permitting and Operator Assistance for all Environmental Permits: <https://deq.mt.gov/Permitting>

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

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

United States Army Corps of Engineers

Montana Regulatory Office for federal permits related to construction in water and wetlands

<https://www.nwo.usace.army.mil/Missions/Regulatory-Program/Montana/> (406) 441-1375

United States Environmental Protection Agency

Environmental information, notices, permitting, and contacts <https://www.epa.gov/mt>

Gateway to state resource locators <https://www.envcap.org/srl/index.php>

United States Fish and Wildlife Service

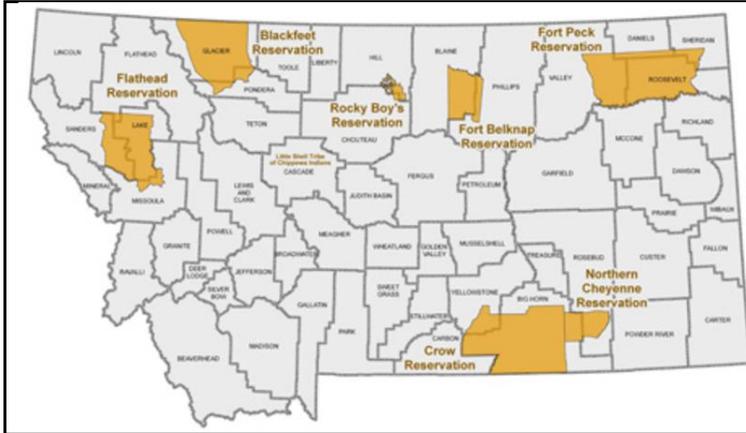
Information Planning and Conservation (IPAC) website: <https://ipac.ecosphere.fws.gov>

Montana Ecological Services Field Office: <https://www.fws.gov/office/montana-ecological-services> (406) 449-5225

United States Forest Service

Regional Office – Missoula, Montana Contacts			
Wildlife Program Leader	Tammy Fletcher	tammy.fletcher2@usda.gov	(406) 329-3086
Aquatic Ecologist	Justin Jimenez	justin.jimenez@usda.gov	(435) 370-6830
TES Program	Lydia Allen	lydia.allen@usda.gov	(406) 329-3558
Interagency Grizzly Bear Coordinator	Scott Jackson	scott.jackson@usda.gov	(406) 329-3664
Regional Botanist	Amanda Hendrix	amanda.hendrix@usda.gov	(651) 447-3016
Regional Vegetation Ecologist	Mary Manning	marry.manning@usda.gov	(406) 329-3304
Invasive Species Program Manager	Michelle Cox	michelle.cox2@usda.gov	(406) 329-3669

Tribal Nations



[Assiniboine & Gros Ventre Tribes – Fort Belknap Reservation](#)

[Assiniboine & Sioux Tribes – Fort Peck Reservation](#)

[Blackfeet Tribe - Blackfeet Reservation](#)

[Chippewa Creek Tribe - Rocky Boy's Reservation](#)

[Crow Tribe – Crow Reservation](#)

[Little Shell Chippewa Tribe](#)

[Northern Cheyenne Tribe – Northern Cheyenne Reservation](#)

[Salish & Kootenai Tribes - Flathead Reservation](#)

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

[Alberta Conservation Information Management System](#)

[British Columbia Conservation Data Centre](#)

[Idaho Natural Heritage Program](#)

[North Dakota Natural Heritage Program](#)

[Saskatchewan Conservation Data Centre](#)

[South Dakota Natural Heritage Program](#)

[Wyoming Natural Diversity Database](#)

Invasive Species Management Contacts and Information

Aquatic Invasive Species

[Montana Fish, Wildlife, and Parks Aquatic Invasive Species staff](#)

[Montana Department of Natural Resources and Conservation's Aquatic Invasive Species Grant Program](#)

[Montana Invasive Species Council \(MISC\)](#)

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

If you are aware of observation datasets that the MTNHP is missing, please report them to the Program Botanist apipp@mt.gov or Senior Zoologist dbachen@mt.gov. If you have animal or plant observations that you would like to contribute, you can also submit them via Excel spreadsheets, geodatabases, iNaturalist, or a Survey123 form. Various methods of data submission are reviewed in this playlist of videos:

<https://www.youtube.com/playlist?list=PLRaydtZpHu2qOHPoSPq9cnM9uXGmEXACx>

Observations

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

Species Occurrences

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

Plant Species Occurrences

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

Animal Species Occurrences

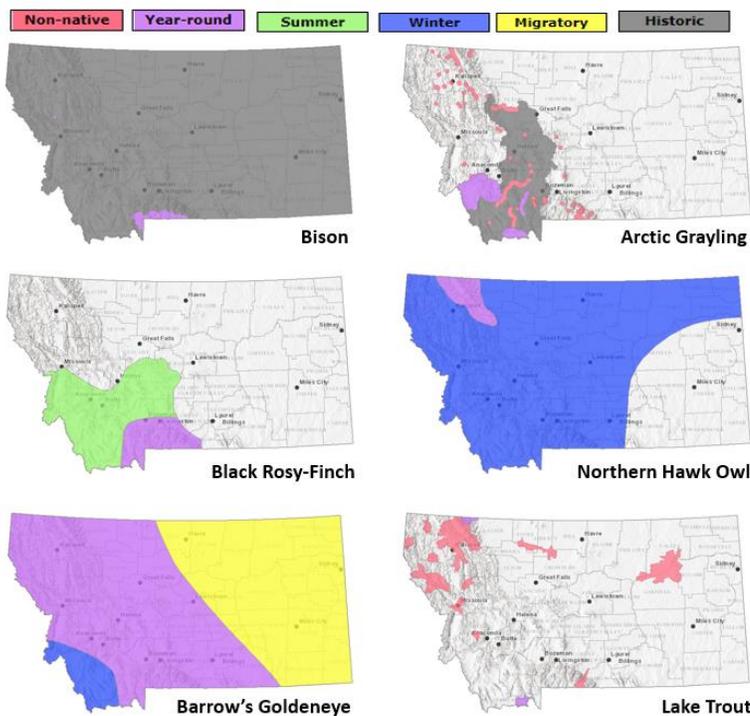
The location of a verified observation or specimen record typically known or assumed to represent a breeding population or a portion of a breeding population. Animal SO's are generally: (1) buffers of terrestrial point observations based on documented species' home range sizes; (2) buffers of stream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

Other Occurrence Polygons

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

Geographic Range Polygons

Geographic range polygons are still under development for most plant and invertebrate species. Native year-round, summer, winter, migratory and historic geographic range polygons as well as polygons for introduced



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

Predicted Suitable Habitat Models

Predicted habitat suitability models have been created for plant and animal Species of Concern and are undergoing development for non-Species of Concern. For species for which models have been completed, the environmental summary report includes simple rule-based associations with streams for aquatic species and seasonal habitats for game species as well as mathematically complex Maximum Entropy models (Phillips et al. 2006, *Ecological Modeling* 190:231-259) constructed from a variety of statewide biotic and abiotic layers and presence only data for individual species for most terrestrial species. For the Maximum Entropy models, we reclassified 90 x 90-meter continuous model output into suitability classes (unsuitable, low, moderate, and optimal) then aggregated that into the one square mile hexagons used in the environmental summary report; this is the finest spatial scale we suggest using this information in management decisions and survey planning. Full model write ups for individual species that discuss model goals, inputs, outputs, and evaluation in much greater detail are posted on the MTNHP's [Predicted Suitable Habitat Models](#) webpage. Evaluations of predictive accuracy and specific limitations are included with the metadata for models of individual species.

Model outputs should not be used in place of on-the-ground surveys for species. Instead model outputs should be used in conjunction with habitat evaluations to determine the need for on-the-ground surveys for species. We suggest that the percentage of predicted optimal and moderate suitable habitat within the report area be used in conjunction with geographic range polygons and the percentage of commonly associated habitats to generate lists of potential species that may occupy broader landscapes for the purposes of landscape-level planning.

Associated Habitats

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

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

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

Introduction to Land Cover

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

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

Literature Cited

- Anderson, J.R. E.E. Hardy, J.T. Roach, and R.E. Witmer. 1976. A land use and land cover classification system for use with remote sensor data. U.S. Geological Survey Professional Paper 964.
- Comer, P., D. Faber-Langendoen, R. Evans, S. Gawler, C. Josse, G. Kittel, S. Menard, M. Pyne, M. Reid, K. Schulz, K. Snow, and J. Teague. 2003. Ecological systems of the United States: A working classification of U.S. terrestrial systems. NatureServe, Arlington, VA.

Introduction to Wetland and Riparian

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

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

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

See detailed overviews, with examples, of both wetland and riparian classification systems and associated codes as a [storymap](#) and companion [guide](#)

Literature Cited

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79/31. Washington, D.C. 103pp.
- Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, D.C.
- U.S. Fish and Wildlife Services. 2009. A system for mapping riparian areas in the western United States. Division of Habitat and Resource Conservation, Branch of Resource and Mapping Support, Arlington, Virginia.

Introduction to Land Management

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

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

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

[Public Lands](#)

[Conservation Easements](#)

[Private Conservation Lands](#)

[Managed Areas](#)

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

Introduction to Invasive and Pest Species

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

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

If you are aware of observation or survey datasets for invasive or pest species that the MTNHP is missing, please report them to the Program Coordinator bmaxell@mt.gov Program Botanist apipp@mt.gov or Senior Zoologist dbachen@mt.gov If you have animal or plant observations that you would like to contribute, you can also submit them via Excel spreadsheets, geodatabases, iNaturalist, or a Survey123 form. Various methods of data submission are reviewed in this playlist of videos:

<https://www.youtube.com/playlist?list=PLRaydtZpHu2qOHPoSPq9cnM9uXGmEXACx>

Additional Information Resources

[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](#)