

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

July 14, 2020

Emily Clark Hydrologist, WGM Group 1111 E Broadway Missoula, MT 59802

Dear Emily Clark,

Thank you for your request for Natural Heritage information for Trinity Apartments (SE 1/4, NW 1/4 of SE 1/4 of Section S17 T13N R19W, in Missoula County). Included with this letter is an Environmental Summary report PDF and a companion Excel workbook summarizing information managed in the Montana Natural Heritage Program's (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 (organized efforts following 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. The PDF report contains introductory materials and limitations associated with the use of each of these data types, a list of additional information resources, data use terms and conditions, and suggested contacts. The Excel workbook contains worksheets for each data type that can be easily sorted to summarize particular information needs. In addition to these materials, we have included a compilation of one page snapshots containing general description, habitat, spatial and temporal distribution, and conservation status information for each species listed in the species occurrence, other observed species, and other potential species sections of the Environmental Summary report. These three field guide compilations are excerpted from the full accounts found on the Montana Field Guide http://fieldguide.mt.gov for general reference use and, if desired, as appendices to environmental review documents.

Please keep in mind the following when using and interpreting the enclosed information:

- (1) This information is intended for distribution or use only within your department, agency, or business. Please see the Data Use Terms and Conditions in the Environmental Summary report PDF for additional guidelines.
- (2) Our minimum search area for standard information requests consists of the requested area buffered by an additional mile in order to capture records that may be immediately adjacent to the requested area. Please let us know if a buffer greater than 1 mile would be of use to your efforts.

- (3) Additional information on animal, plant, and lichen species and ecological systems in Montana is available on the Montana Field Guide at http://fieldguide.mt.gov/
- (4) In addition to the information you receive from us, we encourage you to contact state, federal, and tribal resource management agencies in the area where your project is located (see Environmental Summary report PDF).

In order to help us improve our services to you, we invite you to take a simple survey. The survey is intended to gather some basic information on the value and quality of the information and services you recently received from the Montana Natural Heritage Program. The survey is short and should not take more than a few minutes to complete. All information will be kept confidential and will be used internally to improve the delivery of services and to help document the value of our services. Use this link to go to the survey: <a href="http://www.surveymonkey.com/s/RYN8Y8L">http://www.surveymonkey.com/s/RYN8Y8L</a>.

I hope the enclosed information is helpful to you. Please feel free to contact me at the phone or email address below if you have any questions, require additional information, or have suggestions for how we could improve our information resources.

Sincerely,

Bryce A. Maxell

Byce A. Mysell

Montana Natural Heritage Program

(406) 444-3989

bmaxell@mt.gov



### MONTANA

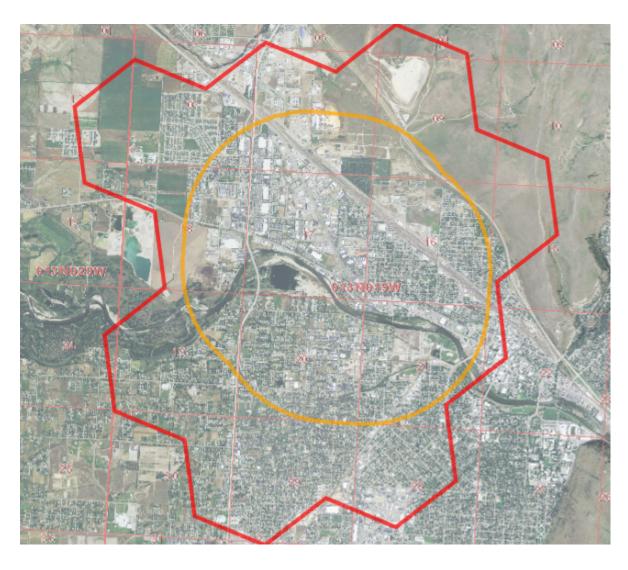
# **Jatural Heritage** rogram 1515 East 6th Avenue Helena, MT 59620

(406) 444-5363

mtnhp.org



Longitude Latitude -113.98848 Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)



#### **Suggested Citation**

Montana Natural Heritage Program. Environmental Summary Report.

for Latitude 46.84724 to 46.91161 and Longitude -113.98848 to -114.06585. Retrieved on 7/14/2020.

The Montana Natural Heritage Program is a program of the Montana State Library's Natural Resource Information System. It is operated as a special program under the Office of the Vice President for Research and Creative Scholarship at the University of Montana, Missoula.

The Montana Natural Heritage Program is part of NatureServe - a network of over 80 similar programs in states, provinces and nations throughout the Western Hemisphere, working to provide comprehensive status and distribution information for species and ecosystems.









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- Introduction to Land Cover
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### Introduction to Environmental Summary Report

The Environmental Summary 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 Montana Natural Heritage Program's (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 (organized efforts following 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. In order to do this in a consistent manner across Montana and allow for rapid delivery of summaries, we have intersected this information with a uniform grid of hexagons that have been used for planning efforts across the western United States (e.g. Western Association of Fish and Wildlife Agencies - Crucial Habitat Assessment Tool). Each hexagon is one square mile in area and approximately one kilometer in length on each side. Summary information for each data layer is then stored with each hexagon and those summaries are added up to an overall summary for the report area you have requested. 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 all hexagons intersected by the polygon they specified.

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. We remind users 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.



Aprogram of the Montana State Library's Natural Resource Information System operated by the University of Montana.

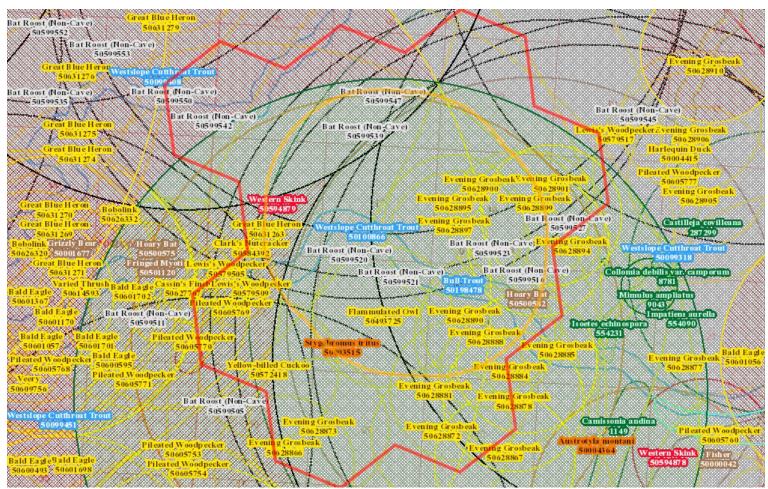
Legend Model Icons Habitat Icons Range Icons Num Obs N Suitable (native range) Common Introduced Count of obs with 'good precision' Optimal Suitability Y Year-round Occasional (<=1000m) Moderate Suitability S Summer Low Suitability W Winter additional 'poor Suitable (introduced range) Migratory precision' obs H Historic (1001m-10,000m)

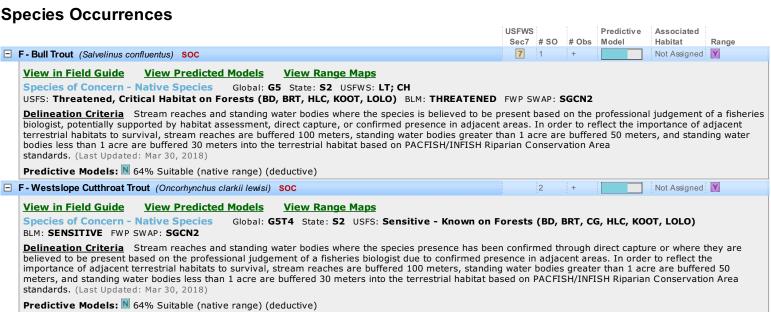
Latitude 46.84724 -113.98848 46.91161 -114.06585

### **Native Species**

Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)

MT\_Status='Species of Concern', 'Special Status', 'Important Animal Habitat', 'Potential SOC'





_	B - Lewis's Woodpecker (Melanerpes lewis) SOC	Q M		
		_ : • • • •		
	<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: <b>G4</b> State: <b>S2B</b> USFWS: <b>MBTA; BCC10; BCC17</b> BLM: <b>SENSITIVE</b> FWP SWAP: <b>SGCN2</b> PII	F· <b>2</b>		
	Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point of 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 otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Se	bservation tree and		
	Predictive Models: 45% Optimal (inductive), M 45% Moderate (inductive), L 9% Low (inductive) Associated Habitats: 3% Common			
=	B - Great Blue Heron (Ardea herodias) SOC	YS M		
	<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: <b>G5</b> State: <b>S3</b> USFWS: <b>MBTA</b> FWP SWAP: <b>SGCN3</b>			
	<u>Delineation Criteria</u> Confirmed nesting area buffered by a minimum distance of 6,500 meters in order to be conservative about encompassing commonly used for foraging near the breeding colony and otherwise buffered by the locational uncertainty associated with the observation up to a distance of 10,000 meters. (Last Updated: Mar 24, 2020)			
	Predictive Models:    9% Optimal (inductive),    73% Moderate (inductive),    18% Low (inductive)    Associated Habitats:    4% Common			
	B - Bald Eagle (Haliaeetus leucocephalus) SSS	Y		
	<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Special Status Species - Native Species</u> Global: <b>G5</b> State: <b>S4</b> USFWS: <b>DM</b> ; <b>BGEPA</b> ; <b>MBTA</b> ; <b>BCC10</b> ; <b>BCC11</b> ; <b>BCC17</b>			
	USFS: Sensitive - Known on Forests (BD, BRT, CG, HLC, KOOT, LOLO) BLM: SENSITIVE PIF: 2			
	<b>Delineation Criteria</b> Confirmed nesting area buffered by a minimum distance of 2,000 meters in order to be conservative about encompassing territory and area commonly used for renesting and otherwise buffered by the locational uncertainty associated with the observation up to a maximum 10,000 meters. (Last Updated: Mar 30, 2020)	num distance of		
	Predictive Models: M 64% Moderate (inductive), L 36% Low (inductive) Associated Habitats: M 7% Common, □ 13% Occasional			
=	M - Fringed Myotis (Myotis thysanodes) SOC	Y		
	<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u>			
	Species of Concern - Native Species Global: G4 State: S3 BLM: SENSITIVE FWP SWAP: SGCN3			
	Delineation Criteria Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, and definitively identified roosting individuals) of adults or juveniles. Point observation location is buffered by a minimum distance of 2,000 meters in order to encompass the range of distances traveled from capture locations to roosts in the Black Hills of South Dakota and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. When cave locations are involved, point observations are mapped in the center of a one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations (U.S. Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance of 2,000 meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: May 14, 2019)			
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	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations Title 13 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-squ hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: May 14, 2019)  Predictive Models: 55% Moderate (inductive), 45% Low (inductive) Associated Habitats: 19% Common, 50% Occasional  R-Western Skink (Plestiodon skiltonianus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGCN3, SGIN  Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by distance of 200 meters in order to encompass habitats supporting other individuals in adjacent territories. Otherwise the point observation is buffer locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 26, 2019)  Predictive Models: 27% Moderate (inductive), 64% Low (inductive) Associated Habitats: 66% Common, 61% Occasional  B - Yellow-billed Cuckoo (Coccyzus americanus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3B USFWS: PS: LT; MBTA; BCC10 USFS: Threatened on Forests (BRT, LOI BLM: THREATENED FWP SWAP: SGCN3, SGIN PIF: 2  Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to encompass the foraging area size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum 10,000 meters. (Last Updated: Sep 05, 2019)	ations (U.S. e of 2,000 uare mile   a minimum red by the  S M  LO)		
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₽	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations of the Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-sque hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: May 14, 2019)  Predictive Models: Moderate (inductive), 45% Low (inductive) Associated Habitats: 19% Common, 50% Occasional  R - Western Skink (Plesticodon skiltonianus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGCN3, SGIN  Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by distance of 200 meters in order to encompass habitats supporting other individuals in adjacent territories. Otherwise the point observation is buffered by distance of 200 meters in order to encompass habitats supporting other individuals in adjacent territories. Otherwise the point observation is buffered by redictive Models: 27% Moderate (inductive), 64% Low (inductive) Associated Habitats: 16% Common, 18% Occasional  B - Yellow-billed Cuckoo (Coccyzus americanus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3B USFWS: PS: LT; MBTA; BCC10 USFS: Threatened on Forests (BRT, LOI BLM: THREATENED FWP SWAP: SGCN3, SGIN PIF: 2  Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to encompass the foraging area size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum 10,000 mete	ations (U.S. e of 2,000 uare mile   a minimum red by the  S M  LO)  maximum m distance of		
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	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regula Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-squ hexagons intersecting this buffered area are presented as the Species Occurrence record. Lava Updated: May 14, 2019)  Predictive Models: \$\mathbb{\textit{\textit{M}}}\$ 55% Moderate (inductive), \$\mathbb{\textit{\textit{L}}}\$ 45% Low (inductive) Associated Habitats: \$\mathbb{\textit{M}}\$ 19% Common, \$\mathbb{\textit{D}}\$ 50% Occasional  R. Western Skink (Plestiodon skiltonianus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps Species of Concern - Native Species  Global: 65 State: \$3 FWP SWAP: SGCN3, SGIN  Delineation Criteria  Ostational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 26, 2019)  Predictive Models: \$\mathbb{\textit{M}}\$ 27% Moderate (inductive), \$\mathbb{\textit{L}}\$ 64% Low (inductive) Associated Habitats: \$\mathbb{\textit{L}}\$ 16% Common, \$\mathbb{\textit{L}}\$ 0 Occasional  B. *Vellow-billed Cuckoo (Coccyzus americanus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps Species of Concern - Native Species  Global: \$6\$ State: \$3B USFWS: PS: LT; MBTA; BCC10 USFS: Threatened on Forests (BRT, LOI BLM: THREATEND FWP SWAP: SGCN3, SGIN PIF: 2  Delineation Criteria  Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to encompass the foraging area size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum 10,000 meters. (Last Updated: Sep 05, 2019)  Predictive Models: \$\mathbb{\text{M}}\$ 27% Moderate (inductive), \$\mathb	ations (U.S. e of 2,000 uare mile  a minimum red by the  S M  LO)  maximum m distance of  S M  ings, and ance of 3,500 se buffered by		
	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regula Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-squ hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: May 14, 2019)  Predictive Models: \$\begin{array}{c}	ations (U.S. e of 2,000 uare mile  a minimum red by the  S M  LO)  maximum m distance of		
₽	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regula Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-squ hexagons intersecting this buffered area are presented as the Species Occurrence record. Lava Updated: May 14, 2019)  Predictive Models: \$\mathbb{\textit{\textit{M}}}\$ 55% Moderate (inductive), \$\mathbb{\textit{\textit{L}}}\$ 45% Low (inductive) Associated Habitats: \$\mathbb{\textit{M}}\$ 19% Common, \$\mathbb{\textit{D}}\$ 50% Occasional  R. Western Skink (Plestiodon skiltonianus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps Species of Concern - Native Species  Global: 65 State: \$3 FWP SWAP: SGCN3, SGIN  Delineation Criteria  Ostational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 26, 2019)  Predictive Models: \$\mathbb{\textit{M}}\$ 27% Moderate (inductive), \$\mathbb{\textit{L}}\$ 64% Low (inductive) Associated Habitats: \$\mathbb{\textit{L}}\$ 16% Common, \$\mathbb{\textit{L}}\$ 0 Occasional  B. *Vellow-billed Cuckoo (Coccyzus americanus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps Species of Concern - Native Species  Global: \$6\$ State: \$3B USFWS: PS: LT; MBTA; BCC10 USFS: Threatened on Forests (BRT, LOI BLM: THREATEND FWP SWAP: SGCN3, SGIN PIF: 2  Delineation Criteria  Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to encompass the foraging area size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum 10,000 meters. (Last Updated: Sep 05, 2019)  Predictive Models: \$\mathbb{\text{M}}\$ 27% Moderate (inductive), \$\mathb	ations (U.S. e of 2,000 uare mile  a minimum red by the  S M  LO)  maximum m distance of  S M  ings, and ance of 3,500 se buffered by		
₽	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regula Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-squ hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: May 14, 2019)  Predictive Models: M 55% Moderate (inductive), 45% Low (inductive) Associated Habitats: 19 (19% Common, 19 (20% Cocasional)  R-Western Skink (Plestiodon skiltonianus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 (State: S3 FNP SWAP: SGCN3, SGIN)  Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by distance of 200 meters in order to encompass habitats supporting other individuals in adjacent territories. Otherwise the point observation is buffered by distance of 200 meters in order to encompass habitats supporting other individuals in adjacent territories. Otherwise the point observation is buffered by Predictive Models: 20% Moderate (inductive), 64% Low (inductive) Associated Habitats: 16% Common, 10% Occasional  B - Yellow-billed Cuckoo (Coccyzus americanus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 (State: S3B USFWS: PS: LT; MBTA; BCC10 USFS: Threatened on Forests (BRT, LOI BLM: THREATENED FWP SWAP: SGCN3, SGIN PIF: 2  Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to encompass the foraging area size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a ma	ations (U.S. e of 2,000 uare mile  a minimum red by the  S M  LO)  maximum m distance of  Is M  ings, and ance of 3,500 se buffered by  bservation		
	one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regular Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-squ hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: May 14, 2019)  Predictive Models: \$\mathbb{\textit{M}}\$ 55% Moderate (inductive), \$\mathbb{\textit{M}}\$ 45% Low (inductive) Associated Habitats: \$\mathbb{\textit{M}}\$ 19% Common, \$\mathbb{\textit{O}}\$ 50% Occasional  R-Western Skink (*Plestiodon skillonianus) SOC  View in Field Guide View Predicted Models View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGCN3, SGIN  Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation is buffer locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 26, 2019)  Predictive Models: \$\mathbb{\textit{M}}\$ 27% Moderate (inductive), \$\mathbb{\textit{M}}\$ 64% Low (inductive) Associated Habitats: \$\mathbb{\textit{M}}\$ 16% Common, \$\mathbb{\textit{M}}\$ 17 to 2	ations (U.S. e of 2,000 uare mile  a minimum red by the  S M  LO)  maximum m distance of  Is M  ings, and ance of 3,500 se buffered by  bservation		

<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: G5 State: S3 USFWS: MBTA USFS: Species of Conservation Concern on Forests (FLAT)
FWP SWAP: SGCN3 PIF: 3
<u>Delineation Criteria</u> Observations with direct evidence of breeding activity or indirect evidence of breeding activity between early March and mid-July within forested habitats containing Whitebark Pine (Pinus albicaulis), Limber Pine (Pinus flexilis), or Ponderosa Pine (Pinus ponderosa). Observations are buffered by a minimum distance of 1,000 meters in order to encompass the spring/summer breeding territory size reported for the species or the locational uncertainy of the observation to a maximum distance of 10,000 meters. (Last Updated: Sep 25, 2019)
Predictive Models: ■ 91% Low (inductive) Associated Habitats: ■ 4% Common
B - Evening Grosbeak (Coccothraustes vespertinus) SOC
View in Field Guide View Predicted Models View Associated Habitat View Range Maps
Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3
Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 1,000 meters in order to encompass the maximum foraging distance from nests reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jan 03, 2020)
Predictive Models: ☐ 64% Low (inductive) Associated Habitats: ☐ 32% Common
M - Grizzly Bear (Ursus arctos) SOC
<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u>
Species of Concern - Native Species  Global: G4 State: S2S3 USFWS: PS: LT; XN USFS: Threatened on Forests (BD, CG, HLC, KOOT, LOLO)  BLM: THREATENED FWP SWAP: SGCN2-3
<u>Delineation Criteria</u> Species Occurrence polygons represent the greatest extent of 1) Recovery Zone Boundaries, 2) Demographic Monitoring Areas, and 3) Current Known Distribution within Montana as defined in the 2018 Grizzly Bear Recovery Program annual report. This includes the Bitterroot Recovery Zone, which is not currently occupied by a resident population of Grizzly Bears. (Last Updated: Jul 05, 2019)
Predictive Models: ■ 36% Low (inductive) Associated Habitats: ■ 17% Common
B - Pileated Woodpecker (Dryocopus pileatus) SOC 3 7 +
View in Field Guide View Predicted Models View Associated Habitat View Range Maps
Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 PIF: 2
<u>Delineation Criteria</u> Observations with evidence of breeding activity buffered by a minimum distance of 1,500 meters in order to be conservative about encompassing home ranges and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jan 03, 2020)
Predictive Models: ■ 36% Low (inductive) Associated Habitats: ■ 3% Common
B - Cassin's Finch (Haemorhous cassinii) SOC
View in Field Guide View Predicted Models View Associated Habitat View Range Maps
Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA; BCC10 FWP SWAP: SGCN3 PIF: 3
Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to be conservative about encompassing the courtship and foraging distance from nesting areas and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jan 03, 2020)
Predictive Models:
B - Varied Thrush (Ixoreus naevius) SOC 1 1 1 + Not Available S
View in Field Guide View Associated Habitat 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 225 meters in order to encompass the reported minimum stand size occupied by breeding pairs and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jan 03, 2020)
Associated Habitats: 2 3% Common
B - Flammulated Owl (Psiloscops flammeolus) SOC 1 1 1 + Not Available S
View in Field Guide View Associated Habitat View Range Maps
Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA; BCC10 USFS: Sensitive - Known on Forests (BD, BRT, HLC, KOOT, LOLO) Sensitive - Suspected on Forests (CG) Species of Conservation Concern on Forests (FLAT)  BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 1
<b>Delineation Criteria</b> Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation
location is buffered by a minimum distance of 300 meters in order to encompass the maximum breeding territory size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: May 02, 2019)
Associated Habitats: 2 1% Common, 3% Occasional
V - Collomia debilis var. camporum (Alpine Collomia) SOC
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: G5T2 State: S1S2
<u>Delineation Criteria</u> Individual occurrences are generally based upon a discretely mapped area provided by an observer and are not separated by any predefined distance. Individual clusters of plants mapped at fine spatial scales (separated by less than approximately 25-50 meters) may be grouped together into one occurrence if they are not separated by distinct areas of habitat or terrain features. Point observations are buffered to encompass any locational uncertainty associated with the observation. (Last Updated: Apr 26, 2018)
Associated Habitats: 0 1% Common
I - Stygobromus tritus (A Subterranean Amphipod) SOC 1 + Not Available Not Assigned
<u>View in Field Guide</u> <u>View Range Maps</u>
Species of Concern - Native Species Global: G1G2 State: S1S2  Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum
distance of 300 meters in order to encompass the cave system the species is dependent on. (Last Updated: Jan 17, 2008)
V - Isoetes echinospora (Spiny-spore Quillwort) SQC

View in Field Guide View Range Maps

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

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

View in Field Guide View Range Maps

Species of Concern - Native Species Global: G3 State: S3 USFS: Sensitive - Known on Forests (KOOT)

**Delineation Criteria** Individual occurrences are generally based upon a discretely mapped area provided by an observer and are not separated by any predefined distance. Individual clusters of plants mapped at fine spatial scales (separated by less than approximately 25-50 meters) may be grouped together into one occurrence if they are not separated by distinct areas of habitat or terrain features. Point observations are buffered to encompass any locational uncertainty associated with the observation. (Last Updated: Feb 06, 2019)

☐ O - Bat Roost (Non-Cave) (Bat Roost (Non-Cave)) IAH

13

Not Available Not Assigned

Not Available Not Assigned | Y

View in Field Guide

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

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



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Legend			
Model Icons	Habitat Icons	Range Icons	Num Obs
N Suitable (native range)	Common	Introduced	Count of obs with
Optimal Suitability	Occasional	Year-round	'good precision'
Moderate Suitability		S Summer	(<=1000m)
Low Suitability		W Winter	+ indicates
Suitable (introduced range)		Migratory	additional 'poor

H Historic

(1001m-10.000m)



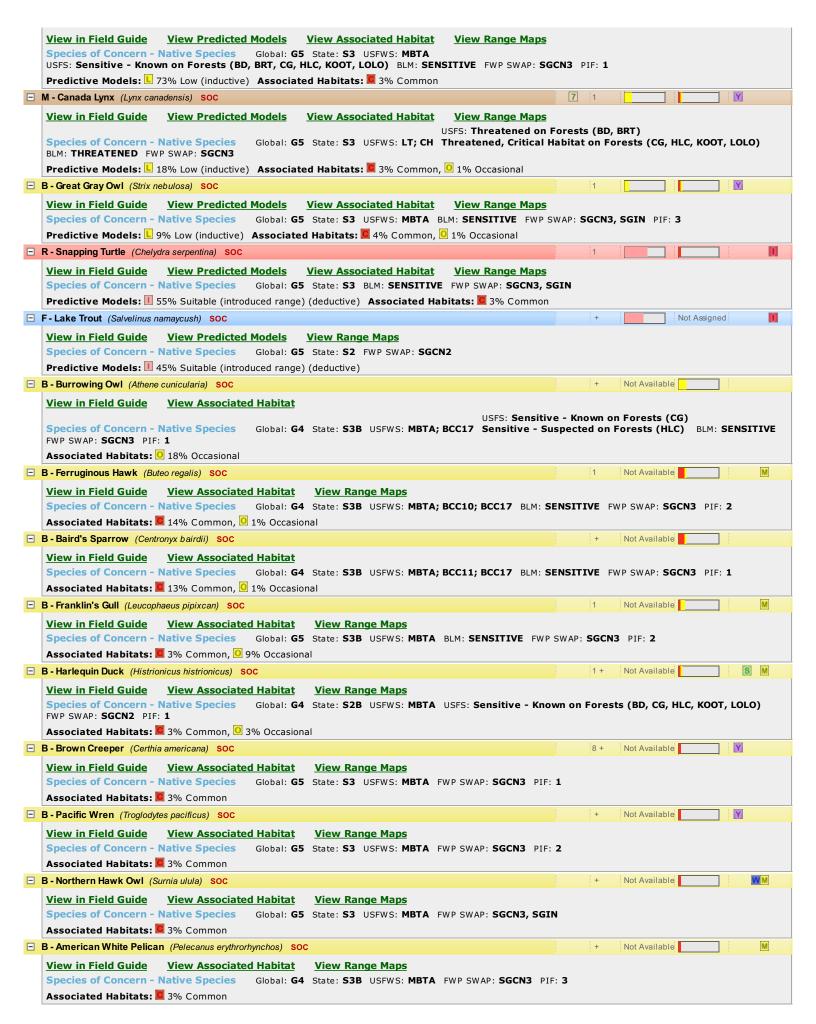
### **Native Species**

Summarized by: **21prvt0008 Trinity Apartments** (Custom Area of Interest) Filtered by:

MT\_Status='Species of Concern', 'Special Status', 'Important Animal Habitat', 'Potential SOC'

### Other Observed Species





□ B - Tennessee Warbler (Leiothlypis peregrina) PSOC		1	Not Available		M
View in Field Guide View Associated Habitat View Range Maps					
Potential Species of Concern - Native Species Global: G5 State: S3S4B USFWS: MBTA					
Associated Habitats: 3% Common					
☐ B - Northern Goshawk (Accipiter gentilis) SOC		1+	Not Available	Y	M
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u>					
Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 PIF	: 2				
Associated Habitats: 💆 1% Common, 🖸 3% Occasional					
☐ B - LeConte's Sparrow (Ammospiza leconteii) SOC		+	Not Available		
View in Field Guide View Associated Habitat					
Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PI	F: <b>3</b>				
Associated Habitats: 1% Common					



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egend			
Model Icons Suitable (native range) Optimal Suitability Moderate Suitability Low Suitability	Habitat Icons Common Occasional	Range Icons II Introduced Y Year-round S Summer W Winter	Num Obs Count of obs with 'good precision' (<=1000m) + indicates additional 'poor
Suitable (introduced range)		M Migratory	precision' obs

(1001m-10.000m)



### **Native Species**

Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)

MT\_Status='Species of Concern', 'Special Status', 'Important Animal Habitat', 'Potential SOC'

### **Other Potential Species**



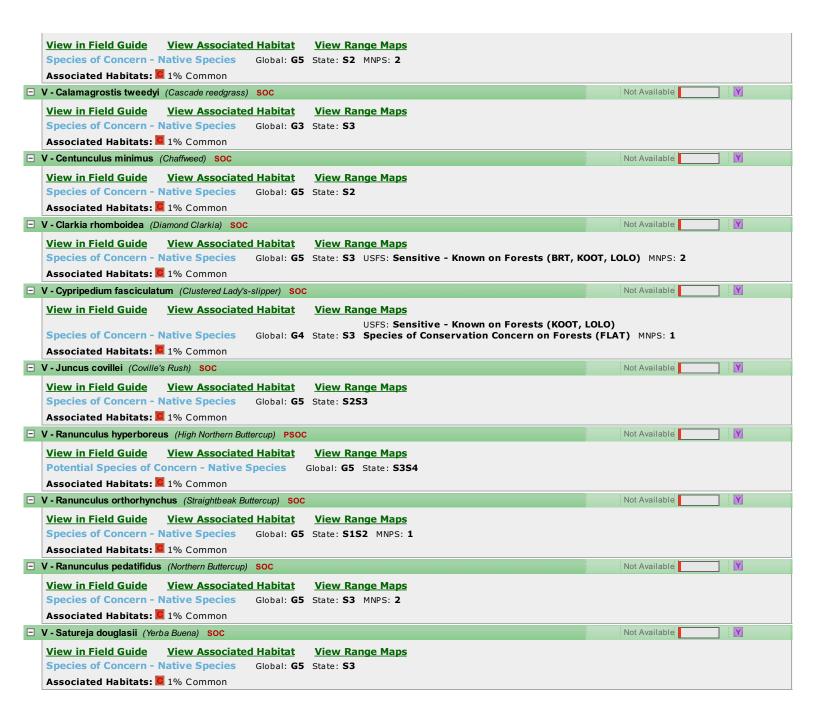


D. B. Bergreiter Felory (Felorence) and	!
B - Peregrine Falcon (Falco peregrinus) SOC	
View in Field Guide View Predicted Models View Associated Habitat View Range Maps	
Species of Concern - Native Species Global: G4 State: S3 USFWS: DM; MBTA; BCC10; BCC11; BCC17 USFS: Sensitive - Known on Forests (BD, BRT, CG, HLC, KOOT, LOLO) BLM: SENSITIVE FWP SWAP: SGCN3 PIF	s. <b>7</b>
Predictive Models: 27% Low (inductive) Associated Habitats: 19% Common	· <del>-</del>
□ R - Northern Alligator Lizard (Elgaria coerulea) SOC	
<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: G5 State: S3 FWP SWAP: SGCN3, SGIN	
Predictive Models: 18% Low (inductive) Associated Habitats: 3% Common, 0 37% Occasional	
■ B - Black Swift (Cypseloides niger) SOC	SM
View in Field Guide View Predicted Models View Associated Habitat View Range Maps	
Species of Concern - Native Species Global: G4 State: S1B USFWS: MBTA; BCC10 USFS: Species of Cons FWP SWAP: SGCN1, SGIN PIF: 2	ervation Concern on Forests (FLAT)
Predictive Models: ■ 9% Low (inductive) Associated Habitats: ■ 3% Common	
□ V - Botrychium hesperium (Western Moonwort) SOC	Not Assigned Y
View in Field Guide View Predicted Models View Range Maps	; <u> </u>
Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known on Forests (BD, KOO)	T) MNPS: 2
Predictive Models: 9% Low (inductive)	.,
□ V - Stipa lettermanii (Letterman's Needlegrass) SOC	Not Assigned   Y
<u>View in Field Guide</u> <u>View Predicted Models</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: <b>G5</b> State: <b>S1S3</b>	
Predictive Models: 9% Low (inductive)	
□ B - Loggerhead Shrike (Lanius Iudovicianus) SOC	Not Available M
,	;
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA; BCC10; BCC17 BLM: SENSITIV	F FWP SWAP: SGCN3 PIF: 2
Associated Habitats: 2 37% Common, 11% Occasional	E TWI SWALL SOCIES THE E
■ B - Sharp-tailed Grouse (Tympanuchus phasianellus) SOC	Not Available
	incontainable .
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: SX,S4 FWP SWAP: SGCN1 PIF: 2	
Associated Habitats: 2 13% Common, 9% Occasional	
■ M - Bison (Bos bison) SOC	Not Available
Wiew in Field Guide View Associated Habitat View Pange Mans	Not Available
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u>	Not Available H
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2	Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4 State: S2 FWP SWAP: SGCN2         Associated Habitats: ☐ 13% Common, ☐ 1% Occasional	
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats: ■ 13% Common, □ 1% Occasional  ▼ V - Botrychium pallidum (Pale Moonwort) SOC	
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2       FWP SWAP: SGCN2         Associated Habitats: ☐ 13% Common, ☐ 1% Occasional         ☐ V - Botrychium pallidum (Pale Moonwort)       SOC         View in Field Guide       View Associated Habitat       View Range Maps	
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional         □ V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide View Associated Habitat Species of Concern - Native Species       View Range Maps State: S1S2 MNPS: 2	
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats: ■ 13% Common, ■ 1% Occasional  V-Botrychium pallidum (Pale Moonwort) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3 State: S1S2 MNPS: 2 Associated Habitats: ■ 13% Common	
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats: ■ 13% Common, ■ 1% Occasional  ▼ V - Botrychium pallidum (Pale Moonwort) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3 State: S1S2 MNPS: 2 Associated Habitats: ■ 13% Common  ▼ V - Castilleja covilleana (Coville Indian Paintbrush) SOC	Not Available Y
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats: ■ 13% Common, ■ 1% Occasional  V-Botrychium pallidum (Pale Moonwort) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3 State: S1S2 MNPS: 2 Associated Habitats: ■ 13% Common	Not Available Y
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: ■ 13% Common, ■ 1% Occasional       1% Occasional         ■ V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3 State: S1S2 MNPS: 2         Associated Habitats: ■ 13% Common         ■ V - Castilleja covilleana (Coville Indian Paintbrush) SOC         View in Field Guide View Associated Habitat View Range Maps	Not Available Y
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional       □ V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide       View Associated Habitat Species       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: □ 13% Common       □ V - Castilleja covilleana (Coville Indian Paintbrush) SOC         View in Field Guide       View Associated Habitat       View Range Maps         USFS: Sensitive - Known on Forests (BRT)	Not Available Y
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2       FWP SWAP: SGCN2         Associated Habitats: ■ 13% Common, □ 1% Occasional       1% Occasional         □ V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide View Associated Habitat Species Global: G3       View Range Maps         Species of Concern - Native Species Global: G3       State: S1S2 MNPS: 2         Associated Habitats: ■ 13% Common       13% Common         □ V - Castilleja covilleana (Coville Indian Paintbrush) SOC         View in Field Guide View Associated Habitat View Range Maps         USFS: Sensitive - Known on Forests (BRT) Species of Concern - Native Species       Global: G3G4 State: S3 Sensitive - Suspected on Forests (BD)	Not Available Y
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional       V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3         V - Castilleja covilleana (Coville Indian Paintbrush)       SOC         View in Field Guide View Associated Habitat       View Range Maps         USFS: Sensitive - Known on Forests (BRT)         Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Suspected on Forests (BD)         Associated Habitats: □ 13% Common	Not Available Y  Not Available Y  MNPS: 2
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats: ■ 13% Common, ■ 1% Occasional  ■ V - Botrychium pallidum (Pale Moonwort) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3 State: S1S2 MNPS: 2 Associated Habitats: ■ 13% Common  ■ V - Castilleja covilleana (Coville Indian Paintbrush) SOC  View in Field Guide View Associated Habitat View Range Maps  USFS: Sensitive - Known on Forests (BRT) Species of Concern - Native Species Global: G3G4 State: S3 Sensitive - Suspected on Forests (BD) Associated Habitats: ■ 13% Common  ■ V - Erigeron linearis (Linear-leaf Fleabane) SOC	Not Available Y  Not Available Y  MNPS: 2
View in Field Guide View Associated Habitat View Range Maps Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats:	Not Available  Not Available  Not Available  Y  MNPS: 2
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional       V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: □ 13% Common       SOC         View in Field Guide       View Associated Habitat       View Range Maps         USFS: Sensitive - Known on Forests (BRT)       Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Suspected on Forests (BD)         Associated Habitats: □ 13% Common       □ V - Erigeron linearis (Linear-leaf Fleabane)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2	Not Available Y  Not Available Y  MNPS: 2
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional       V- Botrychium pallidum (Pale Moonwort)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: □ 13% Common       USFS: Sensitive - Known on Forests (BRT)         Species of Concern - Native Species       Global: G3G4 State: S3 Sensitive - Suspected on Forests (BD)         Associated Habitats: □ 13% Common       V- Erigeron linearis (Linear-leaf Fleabane) SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2         Associated Habitats: □ 13% Common       State: S2 MNPS: 2	Not Available  Not Available  Not Available  Y  MNPS: 2
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional       V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: □ 13% Common       USFS: Sensitive - Known on Forests (BRT)         Species of Concern - Native Species       Global: G3G4 State: S3 Sensitive - Suspected on Forests (BD)         Associated Habitats: □ 13% Common       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2         Associated Habitats: □ 13% Common       State: S2 MNPS: 2         V - Polygonum austiniae       (Austin's Knotweed) PSOC         View in Field Guide       View Associated Habitat       View Range Maps         USFS: Sensitive - Known on Fo	Not Available  Not Available  Not Available  Not Available  Not Available  Y  rests (BD, HLC)
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: □ 13% Common, □ 1% Occasional       V: Botrychium pallidum (Pale Moonwort)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: □ 13% Common       View Range Maps         USFS: Sensitive - Known on Forests (BRT)       Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Suspected on Forests (BD)         Associated Habitats: □ 13% Common       13% Common       Soc       View Range Maps         □ V - Erigeron linearis (Linear-leaf Fleabane)       SOC       View Range Maps         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2         Associated Habitats: □ 13% Common       View Range Maps         □ V - Polygonum austiniae (Austin's Knotweed)       PSOC         View in Field Guide       View Associated Habitat       View Range Maps         USFS: Sensitive - Known on Fo Potential Species of Concern - Native Species       Global: G5T4       State: S3S4       Sensitive -	Not Available  Not Available  Not Available  Not Available  Not Available  Y  rests (BD, HLC)
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats:	Not Available  Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: ■ 13% Common       13% Common       View Range Maps         V-Botrychium pallidum (Pale Moonwort)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: ■ 13% Common       Usew Range Maps       Users: Sensitive - Known on Forests (BRT)         Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Suspected on Forests (BD)         Associated Habitats: ■ 13% Common       View Range Maps         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2         Associated Habitats: ■ 13% Common       View Range Maps         Users: Sensitive - Known on Forests       Users: Sensitive - Known on Forests         View in Field Guide       View Associated Habitat       View Range Maps         Users: Sensitive - Known on Forests       Users: Sensitive - Known on Forests         Associated Habitats: ■ 13% Common       View Range Maps <t< td=""><td>Not Available  Not Available  Not Available  Not Available  Not Available  Y  rests (BD, HLC)</td></t<>	Not Available  Not Available  Not Available  Not Available  Not Available  Y  rests (BD, HLC)
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats:       13% Common,	Not Available  Y  Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: ■ 13% Common       13% Common       View Range Maps         V-Botrychium pallidum (Pale Moonwort)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: ■ 13% Common       Usew Range Maps       Users: Sensitive - Known on Forests (BRT)         Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Suspected on Forests (BD)         Associated Habitats: ■ 13% Common       View Range Maps         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2         Associated Habitats: ■ 13% Common       View Range Maps         Users: Sensitive - Known on Forests       Users: Sensitive - Known on Forests         View in Field Guide       View Associated Habitat       View Range Maps         Users: Sensitive - Known on Forests       Users: Sensitive - Known on Forests         Associated Habitats: ■ 13% Common       View Range Maps <t< td=""><td>Not Available  Not Available  Y  Not Available</td></t<>	Not Available  Y  Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: Image: Im	Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: ■ 13% Common, □ 1% Occasional       V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: ■ 13% Common       Use Wassociated Habitat       View Range Maps         Users: Sensitive - Known on Forests (BRT)       Uses Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Known on Forests (BD)         Associated Habitats: ■ 13% Common       V - Erigeron linearis (Linear-leal Fleabane)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2 MNPS: 2         Associated Habitats: ■ 13% Common       Usew In Field Guide       View Associated Habitat       View Range Maps         View in Field Guide       View Associated Habitat       View Range Maps         Users: Sensitive - Suspected on Forests (BT, LOL Species of Concern - Native Species       Global: G5T4       State: S3S4       Sensitive - Suspected on Forests (BRT, LOL Species of Concern - Native Species	Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G4       State: S2 FWP SWAP: SGCN2         Associated Habitats: ■ 13% Common, ● 1% Occasional       V - Botrychium pallidum (Pale Moonwort) SOC         View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G3       State: S1S2 MNPS: 2         Associated Habitats: ■ 13% Common       Use Range Maps         V- Castilleja covilleana (Coville Indian Paintbrush)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         USFS: Sensitive - Known on Forests (BRT)       Species of Concern - Native Species       Global: G3G4       State: S3       Sensitive - Suspected on Forests (BD)         Associated Habitats: ■ 13% Common       V - Erigeron linearis (Linear-leaf Fleabane)       SOC       View In Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2       MNPS: 2         Associated Habitats: ■ 13% Common       Usew Range Maps       USFS: Sensitive - Known on Forests (BD)         V - Trifolium gymnocarpon (Hollyleaf Clover)       SOC         View in Field Guide       View Associated Habitat       View Range Maps         Users: Sensitive - Kno	Not Available  Not Available
View in Field Guide Species of Concern - Native Species Global: G4 State: S2 FWP SWAP: SGCN2 Associated Habitats:  13% Common,  1% Occasional  ▼ V-Botrychium pallidum (Pale Moonwort) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3 State: S1S2 MNPS: 2 Associated Habitats:  13% Common  ▼ V-Castilleja coville lana (Coville Indian Paintbrush) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Global: G3G4 State: S3 Sensitive - Known on Forests (BRT) Species of Concern - Native Species Associated Habitats:  13% Common  ▼ V-Frigeron linearis (Linear-leaf Fleabane) SOC  View in Field Guide View Associated Habitat Species of Concern - Native Species Associated Habitats:  13% Common  ▼ V-Polygonum austiniae (Austin's Knotweed) PSOC  View in Field Guide View Associated Habitat View Range Maps State: S2 MNPS: 2 Associated Habitats:  13% Common  ▼ V-Polygonum austiniae (Austin's Knotweed) PSOC  View in Field Guide View Associated Habitat View Range Maps  USFS: Sensitive - Known on Forests (BD)  Associated Habitats:  13% Common  ▼ V-Trifolium gymnocarpon (Hollyleaf Clover) SOC  View in Field Guide View Associated Habitat View Range Maps  USFS: Sensitive - Suspected on Forests (BD)  Associated Habitats:  13% Common  ■ V-Trifolium gymnocarpon (Hollyleaf Clover) SOC  View in Field Guide View Associated Habitat View Range Maps  USFS: Sensitive - Known on Forests (BT, LOI Species of Concern - Native Species Global: G5 State: S2 Sensitive - Suspected on Forests (BD)  Associated Habitats:  13% Common	Not Available  Not Available

<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: <b>G4</b> State: <b>S3</b> USFWS: <b>MBTA</b> USFS: <b>Sensitive - Known on Forests (BD, CG)</b> BLM: <b>SENSITIVE</b>	
FWP SWAP: SGCN3 PIF: 1	
Associated Habitats: 6 7% Common	
■ B - White-faced lbis (Plegadis chihi) SOC Not Available	
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2	
Associated Habitats: 7% Common	
□ I - Argia alberta (Paiute Dancer) PSOC Not Available Y	
View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G4 State: S2S3  Associated Habitats: 0 6% Occasional	
□ I - Ophiogomphus occidentis (Sinuous Snaketail) PSOC	
View in Field Guide       View Associated Habitat       View Range Maps         Potential Species of Concern - Native Species       Global: G5 State: S2S4         Associated Habitats:	
■ B - Common Tern (Sterna hirundo) SOC Not Available ■ Soc	
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2         Associated Habitats: □ 6% Common       6% Common	
□ I - Euphydryas gillettii (Gillette's Checkerspot) SOC	
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G3 State: S2  Associated Habitats:   4% Common, ○ 13% Occasional	
■ M - Northern Bog Lemming (Synaptomys borealis) SOC	
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S2 USFS: Sensitive - Known on Forests (BD, BRT, HLC, KOOT, LOLO)  FWP SWAP: SGCN2, SGIN  Associated Habitats: □ 4% Common	
□ I - Limenitis arthemis (Red-spotted Admiral) PSOC Not Available V	
View in Field Guide     View Associated Habitat     View Range Maps       Potential Species of Concern - Native Species     Global: G5 State: S2S3       Associated Habitats:	
□ I - Somatochlora albicincta (Ringed Emerald) PSOC Not Available     Y	
View in Field Guide View Associated Habitat View Range Maps	
Potential Species of Concern - Native Species Global: G5 State: S1S3 Associated Habitats: 3% Common, 4% Occasional	
Associated Habitats: 3% Common, 4% Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 4% Occasional	
Associated Habitats: 3% Common, 4% Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species  Global: G5 State: S2S4	
Associated Habitats: 3% Common, 4% Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 4% Occasional  I - Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S2S4	
Associated Habitats: 3% Common, 4% Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S2S4 Associated Habitats: 3% Common, 4% Occasional  I - Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S2S4 Associated Habitats: 3% Common, 3% Occasional	
Associated Habitats: 3 % Common, 4 % Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S254  Associated Habitats: 3 % Common, 4 % Occasional  I - Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S254  Associated Habitats: 3 % Common, 3 % Occasional  B - Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S254  Associated Habitats: 3 % Common, 3 % Occasional  B - Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2	
Associated Habitats: 3% Common, 4% Occasional  I-Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 4% Occasional  I-Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 3% Occasional  B-Forster's Tern (Sterna forsteri) SOC  View In Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 5% State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2  Associated Habitats: 3% Common, 5% Occasional	
Associated Habitats: 3 % Common, 4 % Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S254  Associated Habitats: 3 % Common, 4 % Occasional  I - Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S254  Associated Habitats: 3 % Common, 3 % Occasional  B - Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S254  Associated Habitats: 3 % Common, 3 % Occasional  B - Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2	
Associated Habitats: 3 3% Common, 4 4% Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide	
Associated Habitats: 3% Common, 4% Occasional  I-Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 4% Occasional  I-Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 3% Occasional  B-Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 3% Occasional  B-Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2  Associated Habitats: 3% Common, 3% Occasional  B-Caspian Tern (Hydroprogne caspia) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 2  Not Available Minimal Species Global: G5 State: S2B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 2	
Associated Habitats: 3% Common, 4% Occasional  I - Somatochlora minor (Ocellated Emerald) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 4% Occasional  I - Libellula saturata (Flame Skimmer) PSOC  View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 3% Occasional  B - Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S2S4  Associated Habitats: 3% Common, 3% Occasional  B - Forster's Tern (Sterna forsteri) SOC  View in Field Guide View Associated Habitat Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2  Associated Habitats: 3% Common, 3% Occasional  B - Caspian Tern (Hydroprogne caspia) SOC  View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S2B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 2  Associated Habitats: 3% Common, 3% Occasional	

View in Field Guide View Associated Habitat View Range Maps		
Potential Species of Concern - Native Species Global: G5 State: S3S5		
Associated Habitats: ■ 3% Common, □ 1% Occasional		
□ B - Boreal Chickadee (Poecile hudsonicus) SOC	Not Available	Y
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u>		
Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3		
Associated Habitats: 3% Common	Net Aveileble	Y
□ I - Aeshna constricta (Lance-tipped Darner) PSOC	Not Available	
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u> Potential Species of Concern - Native Species Global: G5 State: S1S3		
Associated Habitats: 3% Common		
□ I - Aeshna eremita (Lake Darner) PSOC	Not Available	YSW
View in Field Guide View Associated Habitat Potential Species of Concern - Native Species Global: G5 State: S3S4  Associated Habitats: 3% Common		
□ I - Argia emma (Emma's Dancer) PSOC	Not Available	Ÿ
View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S3S5  Associated Habitats: 3% Common		
□ I - Ladona julia (Chalk-fronted Corporal) PSOC	Not Available	Ÿ
View in Field Guide View Associated Habitat View Range Maps	, , , , , , , , , , , , , , , , , , , ,	
Potential Species of Concern - Native Species Global: G5 State: S3S4		
Associated Habitats: ■ 3% Common		
□ I - Polygonia progne (Gray Comma) SOC	Not Available	Ÿ
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u>		
Species of Concern - Native Species Global: G5 State: S2  Associated Habitats: 3% Common		
□ I - Rhionaeschna multicolor (Blue-eyed Darner) PSOC	Not Available	Ÿ
View in Field Guide View Associated Habitat View Range Maps	, not / trailable	
Potential Species of Concern - Native Species Global: G5 State: S2S4		
Associated Habitats: 3% Common		
□ V - Rotala ramosior (Toothcup) SOC	Not Available	Ÿ
View in Field Guide     View Associated Habitat     View Range Maps       Species of Concern - Native Species     Global: G5     State: S1S2 MNPS: 4       Associated Habitats: ■ 3% Common		
V - Senecio eremophilus (Desert Groundsel) SOC	Not Available	Ÿ
View in Field Guide     View Associated Habitat     View Range Maps       Species of Concern - Native Species     Global: G5     State: S1S2       Associated Habitats: ■ 3% Common	-	
□ V - Wolffia columbiana (Columbia Water-meal) SOC	Not Available	Ÿ
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S2S3  Associated Habitats: 3% Common		
□ B - Clark's Grebe (Aechmophorus clarkii) SOC	Not Available	M
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PIF: 3		
Associated Habitats: 3% Common	Not Assistant	
B - Common Loon (Gavia immer) SOC	Not Available	M
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA USFS: Sensitive - Known on Formatter Support Suppor	rests (KOOT, LOLO)	
Associated Habitats: 3% Common		
I - Aeshna tuberculifera (Black-tipped Darner) PSOC  Visus in Field Colida Wissen Associated Makitata Wissen Bassa Management	Not Available	Ÿ
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u> Potential Species of Concern - Native Species Global: G5 State: S2S4		
Associated Habitats: 1% Common, 0 6% Occasional		
□ I - Argia vivida (Vivid Dancer) PSOC	Not Available	Ÿ
View in Field Guide View Associated Habitat View Range Maps		

□ I - Leucorrhinia glacialis (Crimson-ringed Whiteface) PSOC	Not Available Y
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u>	
Potential Species of Concern - Native Species Global: G5 State: S3	
Associated Habitats: 2 1% Common, 0 6% Occasional	
■ M - Wolverine (Gulo gulo) SOC	7 Not Available
View in Field Guide View Associated Habitat View Range Maps  Species of Concern - Native Species Global: G4 State: S3 USFWS: P USFS: Proposed on Forests (BD, IBLM: SENSITIVE FWP SWAP: SGCN3  Associated Habitats: □ 1% Common. □ 3% Occasional	BRT, CG, HLC, KOOT, LOLO)
B - Boreal Owl (Aegolius funereus) PSOC	Not Available
View in Field Guide View Associated Habitat View Range Maps	Not / Validable
Potential Species of Concern - Native Species Global: G5 State: S3S4 USFWS: MBTA FWP SWAP: SGIN Associated Habitats: 1% Common, 3% Occasional	PIF: <b>3</b>
□ I - Aeshna juncea (Sedge Darner) PSOC	Not Available Y
View in Field Guide       View Associated Habitat       View Range Maps         Potential Species of Concern - Native Species       Global: G5 State: S3S5         Associated Habitats: ☐ 1% Common, ☐ 3% Occasional	
□ I - Aeshna subarctica (Subarctic Darner) SOC	Not Available Y
View in Field Guide     View Associated Habitat     View Range Maps       Species of Concern - Native Species     Global: G5     State: S1S2       Associated Habitats: □ 1% Common, □ 3% Occasional	
□ I - Colias gigantea (Giant Sulphur) PSOC	Not Available Y
View in Field Guide View Associated Habitat View Range Maps	; institutions; [ ]
Potential Species of Concern - Native Species Global: G5 State: S3  Associated Habitats: 1% Common, 0 3% Occasional	
□ I - Enallagma clausum (Alkali Bluet) PSOC	Not Available
View in Field Guide     View Associated Habitat     View Range Maps       Potential Species of Concern - Native Species     Global: G5 State: S2S4       Associated Habitats: □ 1% Common, □ 3% Occasional	
I - Leucorrhinia borealis (Boreal Whiteface) SOC	Not Available Y
<u>View in Field Guide</u> <u>View Associated Habitat</u> <u>View Range Maps</u> <u>Species of Concern - Native Species</u> Global: <b>G5</b> State: <b>S1</b>	
Associated Habitats:   1% Common,   3% Occasional	
□ I - Rhionaeschna californica (California Darner) PSOC	Not Available Y
View in Field Guide     View Associated Habitat     View Range Maps       Potential Species of Concern - Native Species     Global: G5 State: S3S5       Associated Habitats: ■ 1% Common, □ 3% Occasional	
■ I - Somatochlora hudsonica (Hudsonian Emerald) PSOC	Not Available Y
View in Field Guide       View Associated Habitat       View Range Maps         Potential Species of Concern - Native Species       Global: G5 State: S2S4         Associated Habitats: □ 1% Common, □ 3% Occasional	
- I - Sympetrum madidum (Red-veined Meadowhawk) PSOC	Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Potential Species of Concern - Native Species       Global: G5 State: S2S3         Associated Habitats: □ 1% Common, □ 3% Occasional	
B - Gray-crowned Rosy-Finch (Leucosticte tephrocotis) SOC	Not Available Y WM
View in Field Guide       View Associated Habitat       View Range Maps         Species of Concern - Native Species       Global: G5       State: S2B,S5N USFWS: MBTA FWP SWAP: SGCN2, SGII         Associated Habitats: □ 1% Common       1% Common	
□ I - Aeshna sitchensis (Zigzag Darner) PSOC	Not Available
View in Field Guide       View Associated Habitat       View Range Maps         Potential Species of Concern - Native Species       Global: G5 State: S2S3         Associated Habitats: □ 1% Common	
I - Somatochlora semicircularis (Mountain Emerald) PSOC	Not Available
View in Field Guide View Associated Habitat View Range Maps Potential Species of Concern - Native Species Global: G5 State: S3S5	
Associated Habitats: 1% Common	
- V - Brava humilis (Low Brava) SOC	Not Available





### **Structured Surveys**

### Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)

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

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

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

B-Owl Banding (ORI Ow Nest Survey and Banding)	Survey Count: 1	Obs Count: 1	Recent Survey: 1997
B-Point Count (Bird Point Count)	Survey Count: 45	Obs Count: 348	Recent Survey: 1994
B-Raptor nest (Raptor Nest Survey)	Survey Count: 2	Obs Count: 2	Recent Survey: 2009
E-Eastern Heath Snail (Eastern Heath Snail Survey)	Survey Count: 4	Obs Count:	Recent Survey: 2012
E-Eurasian Water-milfoil Rake (Rake tows/pulls for Eurasian Water-milfoil)	Survey Count: 5	Obs Count:	Recent Survey: 2012
E-Noxious Weed, Road-based (Noxious Weed Road-based Visual Surveys)	Survey Count: 28	Obs Count: 28	Recent Survey: 2003
M-Bat Roost (Active Season) (Bat Roost (Active Season) Survey)	Survey Count: 2	Obs Count: 1	Recent Survey: 2014
P-Algal scraping (Algal Scraping)	Survey Count: 1	Obs Count: 25	Recent Survey: 2004

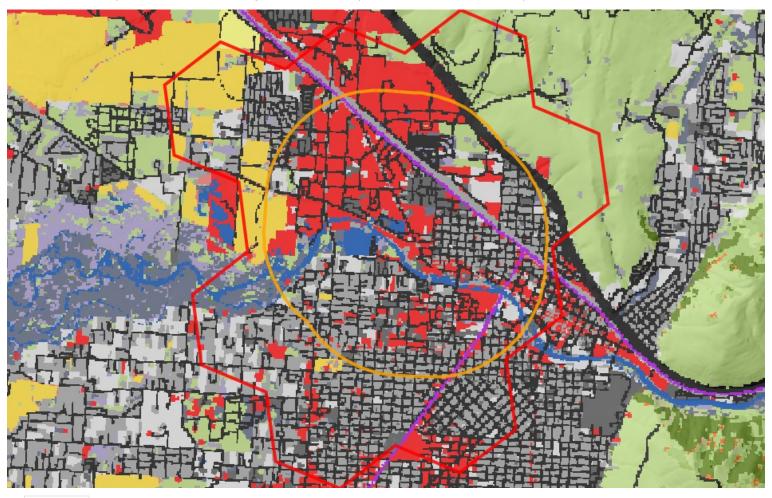


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#### Latitude Longitude 46.84724 -113.98848 46.91161 -114.06585

### **Land Cover**

### Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)



No Image

Human Land Use Developed



**Other Roads** 

25% (1,739 Acres) County, city and or rural roads generally open to motor vehicles.



Human Land Use Developed



Low Intensity Residential

20% (1,412 Acres) Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20-50% of total cover. These areas most commonly include single-family housing units in rural and suburban areas. Paved roadways may be classified into this category.

No Image

Human Land Use Developed



**Commercial / Industrial** 

17% (1,198 Acres) Businesses, industrial parks, hospitals, airports; utilities in commercial/industrial areas.



12% (865 Acres)

### **Grassland Systems Montane 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 highquality occurrences. This system is typified by cool-season perennial bunch grasses and forbs (>25%) cover, with a sparse shrub cover (<10%). Rough fescue (Festuca campestris) is dominant in the northwestern portion of the state and Idaho fescue (Festuca idahoensis) is dominant or co-dominant throughout the range of the system. Bluebunch wheatgrass (Pseudoroegneria spicata) occurs as a co-dominant throughout the range as well, especially on xeric sites. Western wheatgrass (Pascopyrum smithii) is consistently present, often with appreciable coverage (>10%) in lower elevation occurrences in western Montana and virtually always present, with relatively high coverages (>25%), on the edge of the Northwestern Great Plains region. Species diversity ranges from a high of more than 50 per 400 square meter plot on mesic sites to 15 (or fewer) on xeric and disturbed sites. Most occurrences have at least 25 vascular species present. Farmland conversion, noxious species invasion, fire suppression, heavy grazing and oil and gas development are major threats to this system.



#### Human Land Use Agriculture

### Culti

6% (396 Acres)

### Cultivated Crops

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



Human Land Use Developed



#### **Developed, Open Space**

5% (359 Acres) Vegetation (primarily grasses) planted in developed settings for recreation, erosion control, or aesthetic purposes. Impervious surfaces account for less than 20% of total cover. This category often includes highway and railway rights of way and graveled rural roads.



5% (328

Acres)

Human Land Use Developed



#### **High Intensity Residential**

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



3% (199 Acres)

## Wetland and Riparian Systems Floodplain and Riparian



#### Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland

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



### Wetland and Riparian Systems Open Water



#### **Open Water**

3% (182 Acres)

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

No Image

Human Land Use Developed



#### <u>Interstate</u>

2% (128 Acres) National Highway System (NHS) limited access highways and their shoulders and rights of way.

### **Additional Limited Land Cover**

1% (84 Acres) Railroad

1% (65 Acres) Major Roads

1% (60 Acres) Alpine-Montane Wet Meadow

<1% (13 Acres)  $\blacksquare$  Introduced Upland Vegetation - Annual and Biennial Forbland

<1% (3 Acres) Pasture/Hay

<1% (1 Acres) Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest

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

<1% (0 Acres) Emergent Marsh

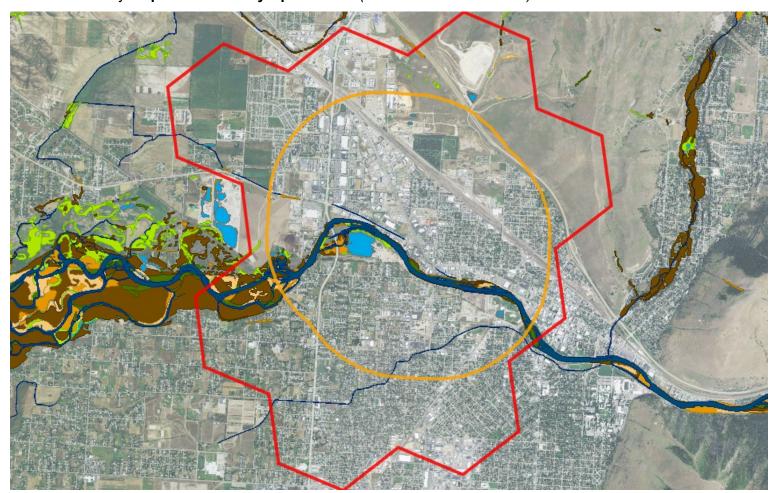


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### 46.84724 -113.98848 46.91161 -114.06585

### Wetland and Riparian

### Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)



#### Wetland and Riparian Mapping

Explain 🖪

Ρ-	Pa	lust	rıne

■ UB - Unconsolidated Bottom

F - Semipermanently Flooded <1 Acres

x - Excavated

P - Palustrine, UB - Unconsolidated Bottom

Wetlands where mud, silt or similar fine particles cover at least 25% of the bottom, and where vegetation cover is less than

AB - Aquatic Bed

F - Semipermanently Flooded 35 Acres

(no modifier) 2 Acres PABF h - Diked/Impounded 3 Acres PABFh x - Excavated 30 Acres PABFx

<1 Acres PUBFx

K - Artificially Flooded 2 Acres x - Excavated 2 Acres PABKx

P - Palustrine, AB - Aquatic Bed

Wetlands with vegetation growing on or below the water surface for most of the growing season.

US - Unconsolidated Shore

2 Acres A - Temporarily Flooded x - Excavated 2 Acres PUSAx

P - Palustrine, US - Unconsolidated Shore Wetlands with less than 75% areal cover of stones, boulders, or bedrock. AND with less than 30% vegetative cover AND the

wetland is irregularly exposed due to seasonal or irregular flooding and subsequent drying.

EM - Emergent

A - Temporarily Flooded 12 Acres (no modifier) 11 Acres PEMA h - Diked/Impounded <1 Acres PEMAh

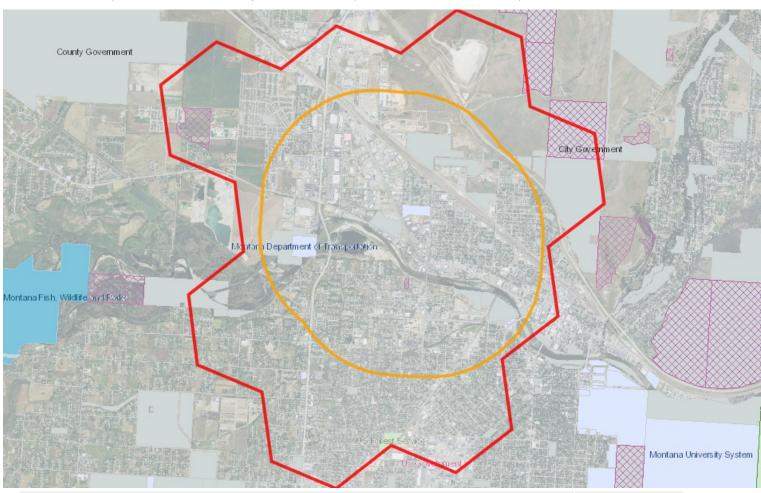
P - Palustrine, EM - Emergent Wetlands with erect, rooted herbaceous vegetation present during most of the growing season.

x - Excavated	1 Acres PEMAx	
C - Seasonally Flooded	3 Acres	
(no modifier)	3 Acres PEMC	
SS - Scrub-Shrub		P - Palustrine, SS - Scrub-Shrub
A - Temporarily Flooded	17 Acres	Wetlands dominated by woody vegetation less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees
(no modifier)	17 Acres PSSA	that are stunted due to environmental conditions.
C - Seasonally Flooded	<1 Acres	
(no modifier)	<1 Acres PSSC	
R - Riverine (Rivers) 2 - Lower Perennial		
■ UB - Unconsolidated Bottom	1	R - Riverine (Rivers), 2 - Lower Perennial, UB -
H - Permanently Flooded	42 Acres	Unconsolidated Bottom Stream channels where the substrate is at least 25% mud, silt
(no modifier)	42 Acres R2UBH	or other fine particles.
■ US - Unconsolidated Shore		R - Riverine (Rivers), 2 - Lower Perennial, US - Unconsolidated Shore
A - Temporarily Flooded	2 Acres	Shorelines with less than 75% areal cover of stones, boulders, or bedrock and less than 30% vegetation cover. The area is
(no modifier)	2 Acres R2USA	also irregularly exposed due to seasonal or irregular flooding
3 - Upper Perennial		and subsequent drying.
UB - Unconsolidated Bottom		R - Riverine (Rivers), 3 - Upper Perennial, UB -
		Unconsolidated Bottom
G - Intermittently Exposed	81 Acres	Stream channels where the substrate is at least 25% mud, silt or other fine particles.
(no modifier)	81 Acres R3UBG	•
US - Unconsolidated Shore		R - Riverine (Rivers), 3 - Upper Perennial, US - Unconsolidated Shore
A - Temporarily Flooded	17 Acres	Shorelines with less than 75% areal cover of stones, boulders,
(no modifier)	17 Acres R3USA	or bedrock and less than 30% vegetation cover. The area is also irregularly exposed due to seasonal or irregular flooding
C - Seasonally Flooded	1 Acres	and subsequent drying.
(no modifier)	1 Acres R3USC	
4 - Intermittent		
SB - Stream Bed		R - Riverine (Rivers), 4 - Intermittent, SB - Stream Bed
C - Seasonally Flooded	11 Acres	Active channel that contains periodic water flow.
x - Excavated	11 Acres R4SBCx	
Rp - Riparian 1 - Lotic		
SS - Scrub-Shrub (no modifier)	25 Acres Rp1SS T ti ir	p - Riparian, 1 - Lotic, SS - Scrub-Shrub his type of riparian area is dominated by woody vegetation hat is less than 6 meters (20 feet) tall. Woody vegetation hicklings and trees that are stunted due to nivironmental conditions.
FO - Forested (no modifier)	27 Acres Rp1FO T	p - Riparian, 1 - Lotic, FO - Forested his riparian class has woody vegetation that is greater than 6 neters (20 feet) tall.
,	27 Acres Rp1EM R	p - Riparian, 1 - Lotic, EM - Emergent iparian areas that have erect, rooted herbaceous vegetation uring most of the growing season.
2 - Lentic		
FO - Forested (no modifier)	<1 Acres Rp2FO $T$	p - Riparian, 2 - Lentic, FO - Forested his riparian class has woody vegetation that is greater than 6 neters (20 feet) tall.

Latitude Longitude 46.84724 -113.98848 46.91161 -114.06585

### **Land Management**

### Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)



Land Management Summary	Explain 🗗			
	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
<b>⊞</b>	675 Acres (10%)			
<b>∄</b>	17 Acres (<1%)			
<b>⊞</b>	12 Acres (<1%)			
USFS Owned	12 Acres (<1%)			
	5 Acres (<1%)			
US Government Owned	5 Acres (<1%)			
<b>⊞</b> 🛅 State	45 Acres (1%)			
■	45 Acres (1%)			
MTDOT Owned	45 Acres (1%)			
<b>⊞</b>	613 Acres (9%)			
<b>⊞</b>	613 Acres (9%)			
Local Government Owned	613 Acres (9%)			
■ Conservation Easements			135 Acres (2%)	
<b>⊞</b> 🚞 Private			133 Acres (2%)	
⊠ Five Valleys Land Trust			133 Acres (2%)	
<b>⊞</b> 🛅 State & Local			2 Acres (<1%)	
			2 Acres (<1%)	

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### **Biological Reports**

### Summarized by: 21prvt0008 Trinity Apartments (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: <a href="mailto:mtnhp@mt.gov">mtnhp@mt.gov</a>

Missoula County Weed District. Geodatabases with sample site location data related to AIS surveys beginning in 2011 on waterbodies in western Montana



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Model Icons

No Suitable (native range)
Optimal Suitability
Moderate Suitability

Suitable (introduced range)

Low Suitability

Habitat Icons
Common
Occasional
Common
Commo

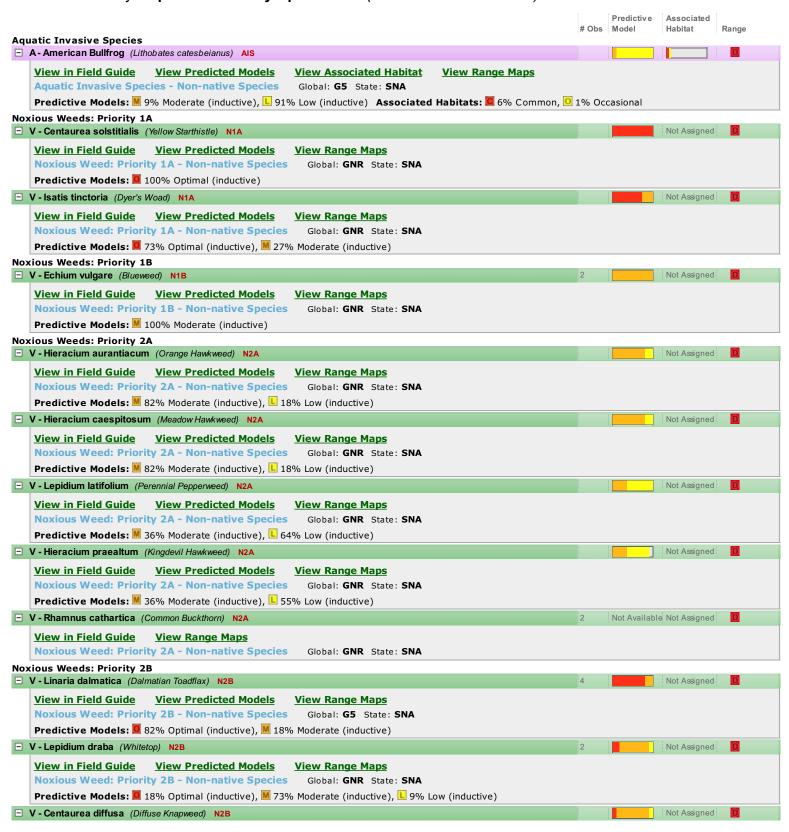
Num Obs Count of obs with 'good precision (<=1000m) + indicates Latitude Longitude 46.84724 -113.98848 46.91161 -114.06585

+ indicates additional 'poor precision' obs (1001m-10,000m)

### Invasive and Pest Species

### Summarized by: 21prvt0008 Trinity Apartments (Custom Area of Interest)

Leaend







### **Introduction to Montana Natural Heritage Program**







P.O. Box 201800 • 1515 East Sixth Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • tel 406.444.0241 • 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 (MCA 90-15) 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. The enabling legislation for MTNHP provides the State Library with the option to contract the operation of the Program. Since 2006, MTNHP has been operated as a program under the Office of the Vice President for Research and Creative Scholarship at the University of Montana (UM) through a renewable 2-year contract with the MSL. Since the first staff was hired in 1985, the Program has logged a long record of success, and developed into a highly respected, service-oriented program. MTNHP is widely recognized as one of the most advanced and effective of over 80 natural heritage programs throughout the Western Hemisphere.

### Vision

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

### Core Values

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

#### CONFIDENTIALITY

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

### INFORMATION MANAGED

Information managed at the Montana Natural Heritage Program includes: (1) lists of, and basic information on, plant and animal species and biological communities; (2) plant and animal surveys, observations, species occurrences, predictive distribution models, range polygons, and conservation status ranks; and (3) land cover and wetland and riparian mapping and the conservation status of these and other 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 three 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. Contact information for MTNHP staff is posted at: http://mtnhp.org/contact.asp
- 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 thirdparty 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 cross or survey 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 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 planning processes and management decisions. In addition to the information you receive from us, we encourage you to contact state, federal, and tribal resource management agencies in the area where your project is located. They may have additional data or management 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 Conservation (IPAC) website <a href="http://ecos.fws.gov/ipac/regarding U.S.">http://ecos.fws.gov/ipac/regarding U.S.</a> 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	Lauri Hanauska-Brown <u>LHanauska-Brown@mt.gov</u> (406) 444-5209				
Common Loon					
Least Tern					
Piping Plover					
Whooping Crane					
Grizzly Bear					
Greater Sage Grouse					
Trumpeter Swan	John Vore <u>ivore@mt.gov</u> (406) 444-3940				
Big Game					
Upland Game Birds					
Furbearers					
Managed Terrestrial Game	Smith Wells – MFWP Data Analyst smith.wells@mt.gov (406) 444-3759				
and Nongame Animal Data					
Fisheries Data	Ryan Alger – MFWP Data Analyst ryan.alger@mt.gov (406) 444-5365				
Wildlife and Fisheries	http://fwp.mt.gov/doingBusiness/licenses/scientificWildlife/				
Scientific Collector's	Kammi McClain for Wildlife Kammi.McClain@mt.gov (406) 444-2612				
Permits	Kim Wedde for Fisheries kim.wedde@mt.gov (406) 444-5594				
Fish and Wildlife	Renee Lemon RLemon@mt.gov (406) 444-3738				
Recommendations for	and see				
Subdivision Development	http://fwp.mt.gov/fishAndWildlife/livingWithWildlife/buildingWithWildlife/subdivisionRecommendations/				
Regional Contacts	Region 1 (Kalispell) (406) 752-5501				
	Region 2 (Missoula) (406) 542-5500				
1 4 6	Region 3 (Bozeman) (406) 994-4042				
	Region 4 (Great Falls) (406) 454-5840				
5 7	Region 5 (Billings) (406) 247-2940				
3 6 6	Region 6 (Glasgow) (406) 228-3700				
The same of	Region 7 (Miles City) (406) 234-0900				

### **United States Fish and Wildlife Service:**

Information Planning and Conservation (IPAC) website: http://ecos.fws.gov/ipac/

Montana Ecological Services Field Office: http://www.fws.gov/montanafieldoffice/ (406) 449-5225

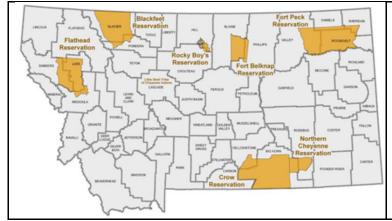
### **Bureau of Land Management**



### **United States Forest Service**

office states forest service						
Regional Office – Missoula, Montana Contacts						
Wildlife Program Leader	Tammy Fletcher	tammyfletcher@fs.fed.us	(406) 329-3588			
Wildlife Ecologist	Cara Staab	cstaab@fs.fed.us	(406) 329-3677			
Fish Program Leader	Scott Spaulding	scottspaulding@fs.fed.us	(406) 329-3287			
Fish Ecologist	<b>Cameron Thomas</b>	cathomas@fs.fed.us	(406) 329-3087			
TES Program	Lydia Allen	<u>Irallen@fs.fed.us</u>	(406) 329-3558			
Interagency Grizzly Bear Coordinator	Scott Jackson	sjackson03@fs.fed.us	(406) 329-3664			
Regional Botanist	Steve Shelly	sshelly@fs.fed.us	(406) 329-3041			
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

<u>Crow Tribe – Crow Reservation</u>

Little Shell Chippewa Tribe

Northern Cheyenne Tribe – Northern Cheyenne Reservation

Salish & Kootenai Tribes - Flathead Reservation

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

Alberta Conservation Information Management System

**British Columbia Conservation Data Centre** 

Idaho Natural Heritage Program

North Dakota Natural Heritage Program

Saskatchewan Conservation Data Centre

South Dakota Natural Heritage Program

**Wyoming Natural Diversity Database** 

### **Invasive Species Management Contacts and Information**

### **Aquatic Invasive Species**

Montana Fish, Wildlife, and Parks Aquatic Invasive Species staff

Montana Department of Natural Resources and Conservation's Aquatic Invasive Species Grant Program

Montana Invasive Species Council (MISC)

**Upper Columbia Conservation Commission (UC3)** 

### **Noxious Weeds**

Montana Weed Control Association Contacts Webpage

Montana Biological Weed Control Coordination Project

Montana Department of Agriculture - Noxious Weeds

Montana Weed Control Association

Montana Fish, Wildlife, and Parks - Noxious Weeds

Montana State University Integrated Pest Management Extension

Integrated Noxious Weed Management after Wildfires

### **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 declining 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 <a href="mailto:apipp@mt.gov">apipp@mt.gov</a> or Senior Zoologist <a href="mailto:dbachen@mt.gov">dbachen@mt.gov</a>. If you have observations that you would like to contribute, you can submit animal observations using our online data entry system at <a href="mailto:http://mtnhp.org/AddObs/">http://mtnhp.org/AddObs/</a>, plant and animal observations via Excel spreadsheets posted at <a href="mailto:http://mtnhp.org/observations.asp">http://mtnhp.org/AddObs/</a>, or to the Program Botanist or Senior Zoologist.

#### **Observations**

The MTNHP manages information on more than 1.8 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 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 <u>Species Occurrence</u> (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**

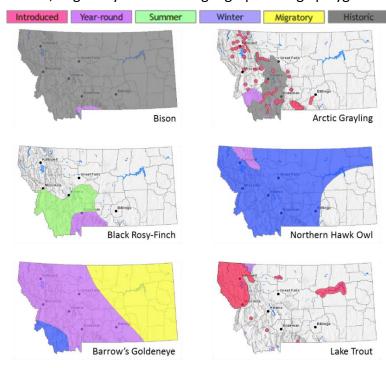
The location of a verified observation or specimen record typically known or assumed to represent a breeding population or a portion of a breeding population. Animal SO's are generally: (1) buffers of terrestrial point observations based on documented species' home range sizes; (2) buffers of stream 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 have not yet been defined for most plant species. Native year-round, summer, winter, migratory and historic geographic range polygons as well as polygons for introduced populations have



been defined for most 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 nonmigratory 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**

Recent predicted suitable habitat suitability models have not yet been created for most plant species. For animal species for which models have been completed, the environmental summary report includes simple, rule-based, associations with streams for fish and other aquatic species and 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 contributed to Montana Natural Heritage Program databases 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 page. 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 82 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 1:100000, and interpreted with supporting ground-level data. The baseline map is adapted from the Northwest ReGAP (NWGAP) project land cover classification, which used 30m resolution multi-spectral Landsat imagery acquired between 1999 and 2001. Vegetation classes were drawn from the Ecological System Classification developed by NatureServe (Comer et al. 2003). The land cover classes were developed by Anderson et al. (1976). The NWGAP effort encompasses 12 map zones. Montana overlaps seven of these zones. The two NWGAP teams responsible for the initial land cover mapping effort in Montana were Sanborn and NWGAP at the University of Idaho. Both Sanborn and NWGAP employed a similar modeling approach in which Classification and Regression Tree (CART) models were applied to Landsat ETM+ scenes. The Spatial Analysis Lab within the Montana Natural Heritage Program was responsible for developing a seamless Montana land cover map with a consistent statewide legend from these two separate products. Additionally, the Montana land cover layer incorporates several other land cover and land use products (e.g., MSDI Structures and Transportation themes and the Montana Department of Revenue Final Land Unit classification) and reclassifications based on plot-level data and the latest NAIP imagery to improve accuracy and enhance the usability of the theme. Updates are done as partner support and funding allow, or when other MSDI datasets can be incorporated. Recent updates include fire perimeters and agricultural land use (annually), energy developments such as wind, oil and gas installations (2014), roads, structures and other impervious surfaces (various years): and local updates/improvements to specific ecological systems (e.g., central Montana grassland and sagebrush ecosystems). Current and previous versions of the Land Use/Land Cover layer with full metadata are available for download at the Montana State Library's Geographic Information Clearinghouse.

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

### Literature Cited

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

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

### **Introduction to Wetland and Riparian**

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

Wetland and Riparian mapping is one of 15 <u>Montana Spatial Data Infrastructure</u> 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 deepwater 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 in publications 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.

A detailed overview, with examples, of both wetland and riparian classification systems and associated codes can be found at: <a href="http://mtnhp.org/help/MapViewer/WetRip">http://mtnhp.org/help/MapViewer/WetRip</a> Classification.asp

### 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 taken an increasingly active role in managing layers of the Montana Land Management Database in partnership with the MTNHP.

Public and private conservation land polygons are attributed with the name of the entity that owns it. The data are derived from the statewide Montana Cadastral Parcel layer. Conservation easement data shows land parcels on which a public agency or qualified land trust has placed a conservation easement in cooperation with the land owner. The dataset contains no information about ownership or status of the mineral estate. For questions about the dataset or to report errors, please contact the Montana Natural Heritage Program at (406) 444-5363 or <a href="mailto:mtnhp@mt.gov">mtnhp@mt.gov</a>. 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, and Forest Pests that have been documented or potentially occur there based on their known distribution in the state. Definitions for each of these invasive and pest species categories can be found on our <u>Species Status Codes</u> 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) and 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 restricted by declining 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 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 <a href="mailto:bmaxell@mt.gov">bmaxell@mt.gov</a> Program Botanist <a href="mailto:apipp@mt.gov">apipp@mt.gov</a> or Senior Zoologist <a href="mailto:dbachen@mt.gov">dbachen@mt.gov</a>. If you have observations that you would like to contribute, you can submit animal observations using our online data entry system at <a href="mailto:http://mtnhp.org/AddObs/">http://mtnhp.org/AddObs/</a>, plant and animal observations via Excel spreadsheets posted at <a href="mailto:http://mtnhp.org/observations.asp">http://mtnhp.org/observations.asp</a>, or to the Program Botanist or Senior Zoologist.

### **Additional Information Resources**

Home Page for Montana Natural Heritage Program (MTNHP)

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 Department of Environmental Quality

Montana Fisheries Information System

Montana Fish, Wildlife, and Parks Subdivision Recommendations

**Montana GIS Data Layers** 

Montana GIS Data Bundler

Montana Greater Sage-Grouse Project Submittal Site

Montana Ground Water Information Center

Montana Legislative Environmental Policy Office Publications

(Including Index of Environmental Permits required in Montana and Guide to the Montana Environmental Policy Act)

Montana Environmental Policy Act (MEPA)

**MEPA Analysis Resource List** 

Laws, Treaties, Regulations, and Permits on Animals and Plants

Montana Spatial Data Infrastructure Layers

Montana State Historic Preservation Office Review and Compliance

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 Conservation (Section 7 Consultation)

Web Soil Survey Tool