

# FINAL ENVIRONMENTAL SCAN

I-90 EB Scale Site – Ramsay; STPX 90-4(73)214  
UPN 8797000

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## **ABBREVIATIONS / ACRONYMS**

<b>APE</b>	Area of Potential Effect
<b>ARM</b>	Administrative Rules of Montana
<b>CAA</b>	Clean Air Act
<b>CAPS</b>	Crucial Areas Planning System
<b>CEIC</b>	Census & Economic Information Center
<b>CFR</b>	Code of Federal Regulations
<b>CHAT</b>	Crucial Habitat Assessment Tool
<b>CO</b>	Carbon Monoxide
<b>COE</b>	U.S. Army Corps of Engineers
<b>CRABS</b>	Cultural Resource Annotated Bibliography System
<b>CRIS</b>	Cultural Resource Information System
<b>CWA</b>	Clean Water Act
<b>DNRC</b>	Department of Natural Resources and Conservation
<b>DOI</b>	U.S. Department of the Interior
<b>EA</b>	Environmental Assessment
<b>EO</b>	Executive Order
<b>EPA</b>	U.S. Environmental Protection Agency
<b>ESA</b>	Endangered Species Act
<b>FAA</b>	Federal Aviation Administration
<b>FEMA</b>	Federal Emergency Management Agency
<b>FHWA</b>	Federal Highway Administration
<b>FIRM</b>	Flood Insurance Rate Map
<b>FONSI</b>	Finding of No Significant Impact
<b>FPPA</b>	Farmland Protection Policy Act
<b>GWIC</b>	Groundwater Information Center
<b>HUC</b>	Hydrologic Unit Code
<b>IBA</b>	Important Bird Area (National Audubon Society)
<b>LUST</b>	Leaking Underground Storage Tank
<b>LWCF</b>	Land and Water Conservation Funds
<b>MAAQS</b>	Montana Ambient Air Quality Standards
<b>MBMG</b>	Montana Bureau of Mines and Geology
<b>MBTA</b>	Migratory Bird Treaty Act
<b>MCA</b>	Montana Code Annotated

<b>MCS</b>	Motor Carrier Services
<b>MDEQ</b>	Montana Department of Environmental Quality
<b>MDT</b>	Montana Department of Transportation
<b>MEPA</b>	Montana Environmental Policy Act
<b>MFISH</b>	Montana Fisheries Information Database
<b>MFWP</b>	Montana Department of Fish, Wildlife, and Parks
<b>MNHP</b>	Montana Natural Heritage Program
<b>MSAT</b>	Mobile Source Air Toxics
<b>NAAQS</b>	National Ambient Air Quality Standards
<b>NEPA</b>	National Environmental Policy Act
<b>NPL</b>	National Priority List
<b>NPS</b>	National Park Service
<b>NRCS</b>	Natural Resource Conservation Service
<b>NRHP</b>	National Register of Historic Places
<b>NRIS</b>	Natural Resource Information System
<b>NWI</b>	National Wetlands Inventory
<b>RP</b>	Reference Post
<b>SHPO</b>	State Historic Preservation Office
<b>TNM</b>	Traffic Noise Model
<b>USC</b>	United States Code
<b>USFS</b>	U.S. Forest Service
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>USGS</b>	U.S. Geological Survey
<b>UST</b>	Underground Storage Tank
<b>WAFWA</b>	Western Association of Fish and Wildlife Agencies
<b>Section 4(f)</b>	Section 4(f) of the 1966 Department of Transportation Act
<b>Section 6(f)</b>	Section 6(f) of the National Land and Water Conservation Funds Act

# ENVIRONMENTAL SCAN

## 1.0 INTRODUCTION

### 1.1. BACKGROUND

The Montana Department of Transportation (MDT) has initiated early project development activities for a new Motor Carrier Services (MCS) scale site for eastbound traffic on Interstate 90 (I-90). The I-90 EB Scale Site-Ramsay project, designated as STPX 90-4(73)214, CN 8797000, is intended to replace the existing scale site located at the Rocker Interchange eastbound I-90/northbound I-15 exit ramp just west of Butte in Butte-Silver Bow County, eastbound I-90 (RP 219.1)/northbound I-15(RP 122.2). The existing scale site at the Rocker Interchange will be removed as part of the planned Rocker Interchange Improvements project, IM 15-2(102)122, UPN 7290000.

The I-90 EB Scale Site-Ramsay project is being developed in two phases. Phase 1 work involves the development of a planning level site feasibility study with the intended outcome to select a site for the replacement MCS EB I-90 scale site. Phase 2 work will involve the project's subsequent preliminary engineering (PE) activities. The initial feasibility study will examine physical and environmental conditions within the area of interest and assess whether or not existing conditions pose limitations to the development of a new scale site. A preliminary "footprint" for the new scale site will be developed to establish minimum geometric requirements for the new facility. The scale site footprint will be used to help identify the most appropriate site within the study area. The recommended site will be further examined to confirm the site location through a more rigorous evaluation of site conditions and geometric requirements for the facility.

This Environmental Scan Report supports Phase 1 of the feasibility study by identifying the environmental resources and conditions within the Environmental Scan Area that may be potentially affected by the development of a new scale site or that may influence the location and design of a new scale site.. The Environmental Scan Area encompasses a 0.9-square-mile area centered on the eastbound lanes of I-90 between Reference Posts (RPs) 213.0 and 214.0. The boundaries of the Environmental Scan Area were established to include all areas affected by a potential new scale site in the area with an adequate buffer for analysis purposes.

As a planning level scan, the information presented herein was obtained from available reports, websites and other documents with the potential to yield relevant information about environmental resources in the scan area. This scan is not a detailed environmental investigation.

The environmental scan will also help support future National Environmental Policy Act (NEPA) / Montana Environmental Policy Act (MEPA) analyses as the project development process for a new eastbound I-90 scale site moves forward and funding for implementation is secured by MDT. The information obtained from the scan may be forwarded into the NEPA/MEPA analysis and does not need to be repeated. Due to the time between the completion of this Environmental Scan and the development of the project, some information in this scan may need to be revisited and verified.

### 1.2. ORGANIZATION OF THIS REPORT

This report describes the geographic/environmental setting of the identified Environmental Scan Area. The document begins with a discussion of the geographic setting of the Environmental Scan Area (Section 2) and continues with descriptions of existing physical resources (Section 3), visual resources

(Section 4), biological resources (Section 5), and cultural and archaeological resources (Section 6). A discussion of demographics and other socio-economic information for the Environmental Scan Area is presented in Section 7. A list of tables and appendices is provided on page ii. A list of abbreviations and acronyms used in the Environmental Scan can be found on pages iii-iv.

Key supporting information is presented in several appendices to this scan.

### 1.3. ENVIRONMENTAL SCAN AREA

The Environmental Scan Area was established to include the existing presently traveled way (PTW) on I-90 between RP 212.7 and RP 214.3 with a 1,500-foot wide buffer from the eastbound I-90 travel lanes. This area was judged to encompass the area that may be affected by the development of a new scale site. The Environmental Scan Area includes parts of the following legally described areas in Butte-Silver Bow County:

- Township 3 North, Range 9 West, Sections 4, 5, 8, and 9
- Township 4 North, Range 9 West, Section 32

The Environmental Scan Area and adjoining lands are shown below in **Figure 1**.

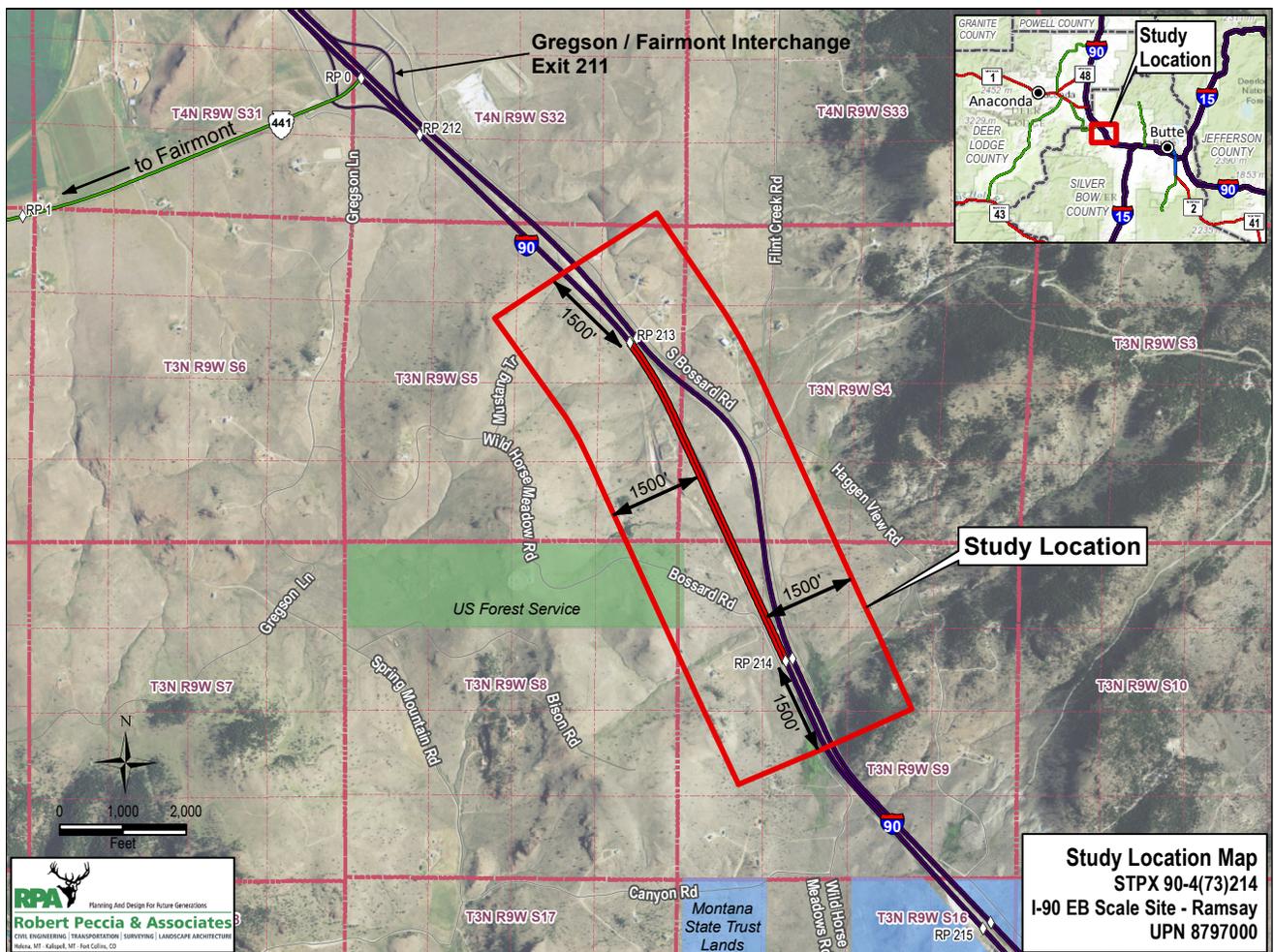


Figure 1: Environmental Scan Study Area

## 2.0 GEOGRAPHIC SETTING

The Environmental Scan Area is located in the Upper Clark Fork River Valley in the northwestern portion of Butte-Silver Bow County. The topography of the area consists of rolling lands between highland areas associated with the Boulder Batholith. Ground elevations along I-90 between RP 213 and 214 generally range from 5,300 to 5,400 feet above sea level with terrain southwest of I-90 reaching heights of about 5,700 feet and terrain northeast of I-90 reaching heights of 6,400 feet or more. The scan area is characterized by rolling hills and valleys with short grasses, sagebrush, junipers, and scattered conifers.

Except for I-90, the Environmental Scan Area is served by only a few public roadways. Bossard Road, a county road accessed via the Gregson Interchange (RP 211.9), provides access for residents in areas on both sides of I-90 in the scan area. The segment of Bossard Road paralleling the westbound lanes of I-90 serves several homes and connects to Flint Creek Road and Hagen View Road. Bossard Road crosses under I-90 at about RP 214.1 and the roadway connects to a platted road network in a rural subdivision and to Canyon Road and Wild Horse Meadow Road southwest of I-90. Wild Horse Meadow Road can also be accessed via the Ramsay Interchange at RP 216.8. Most figures provided in the Environmental Scan show the location of these roadways.

A U.S. Geological Survey (USGS) topographic map (**Figure 2**) and an aerial photograph (**Figure 3**) have been provided to help illustrate general landforms and geographic features in the scan area.

### 2.1. LAND OWNERSHIP AND LAND MANAGEMENT

Virtually all of the land within the Environmental Scan Area is privately owned except for the rights-of-way associated with I-90 and county roads and an isolated 160-acre tract of U.S. Forest Service (USFS) land. The USFS land is under the management of the Butte Ranger District of the Beaverhead-Deerlodge National Forest and is located west of I-90. The Federal Aviation Administration (FAA) maintains a VHF Omni Directional Range (VOR) ground station on the USFS tract. The VOR is a radio navigational aid for commercial and general aviation aircraft.

### 2.2. LAND USE

The land in and around the Environmental Scan Area is used for grazing, transportation and utility corridors, and rural residences. There is no cropland located within the scan area. The majority of the lands adjoining I-90 in the scan area have been subdivided into 20-acre or 40-acre tracts to provide residential building sites. There is some evidence of past sand and gravel extraction in the area. Butte-Silver-Bow County's Silver Lake water line parallels the eastbound lanes of I-90 through the area. **Figure 4** presents a land use map illustrating current development on platted parcels within the scan area.

Land use planning within the Environmental Scan Area is guided by the *Butte-Silver Bow County Growth Policy, 2008 Update*. The *Growth Policy* includes a map showing designated land uses and indicates the majority of lands in the scan area are within Rural District 40 (RD 40). The *Growth Policy* description of desired land uses within this district follows.

- **Rural District 40 (RD40).** This is a land use district that supports agricultural, mining and timber operations and related activities. It emphasizes protection of wildlife resources, open space, watersheds, grazing lands and conservation of soil and water resources. It recognizes residential development related to agricultural, mining or timber operations and permits other rural residential development on home sites at a density of 1 dwelling unit per 40 acres (minimum). Development is encouraged that protects open space, promotes the protection of natural features, allows for continued agricultural use, and the economical provision of services.

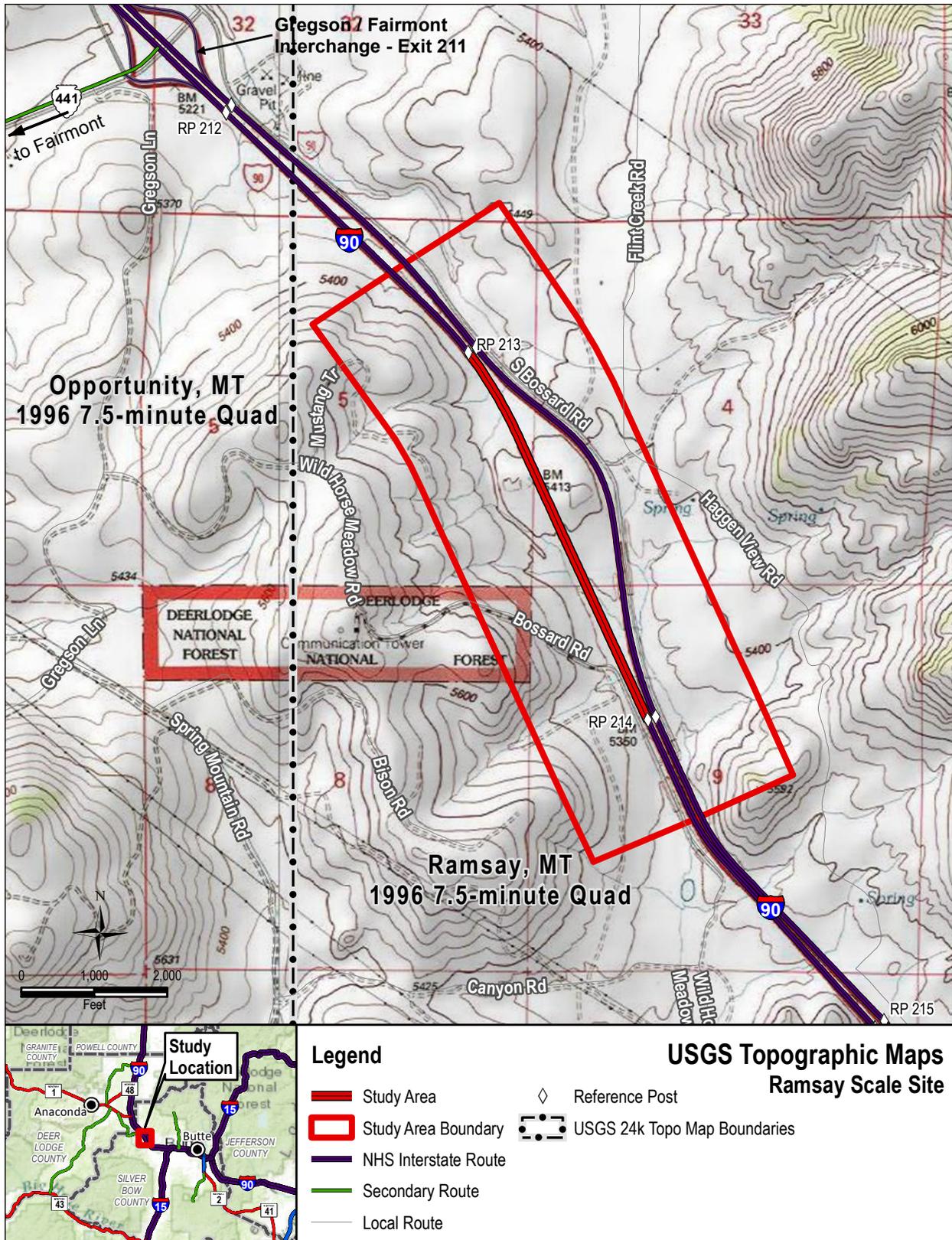


Figure 2: USGS Topographic Map for the Environmental Scan Area

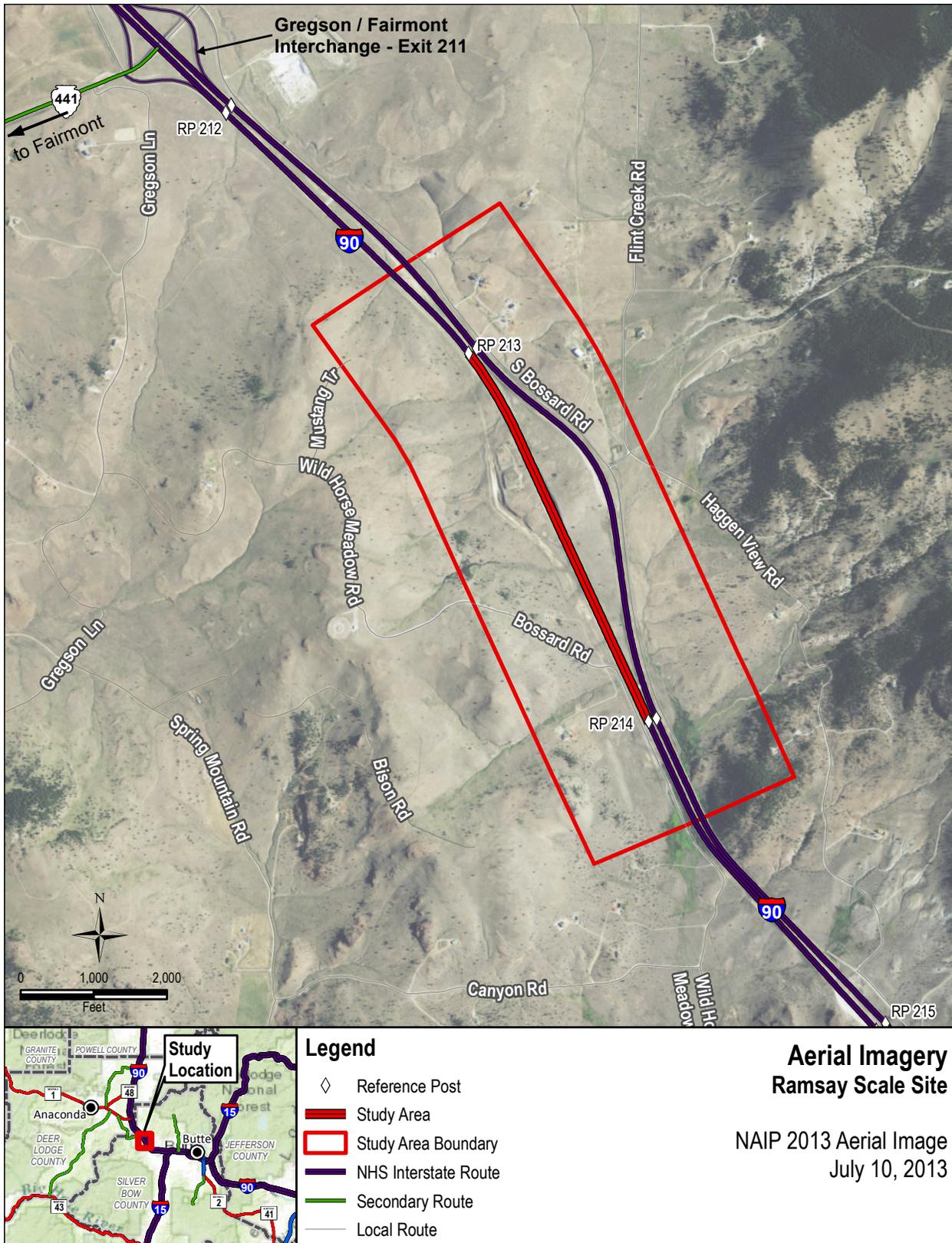


Figure 3: Aerial Photograph of the Environmental Scan Area

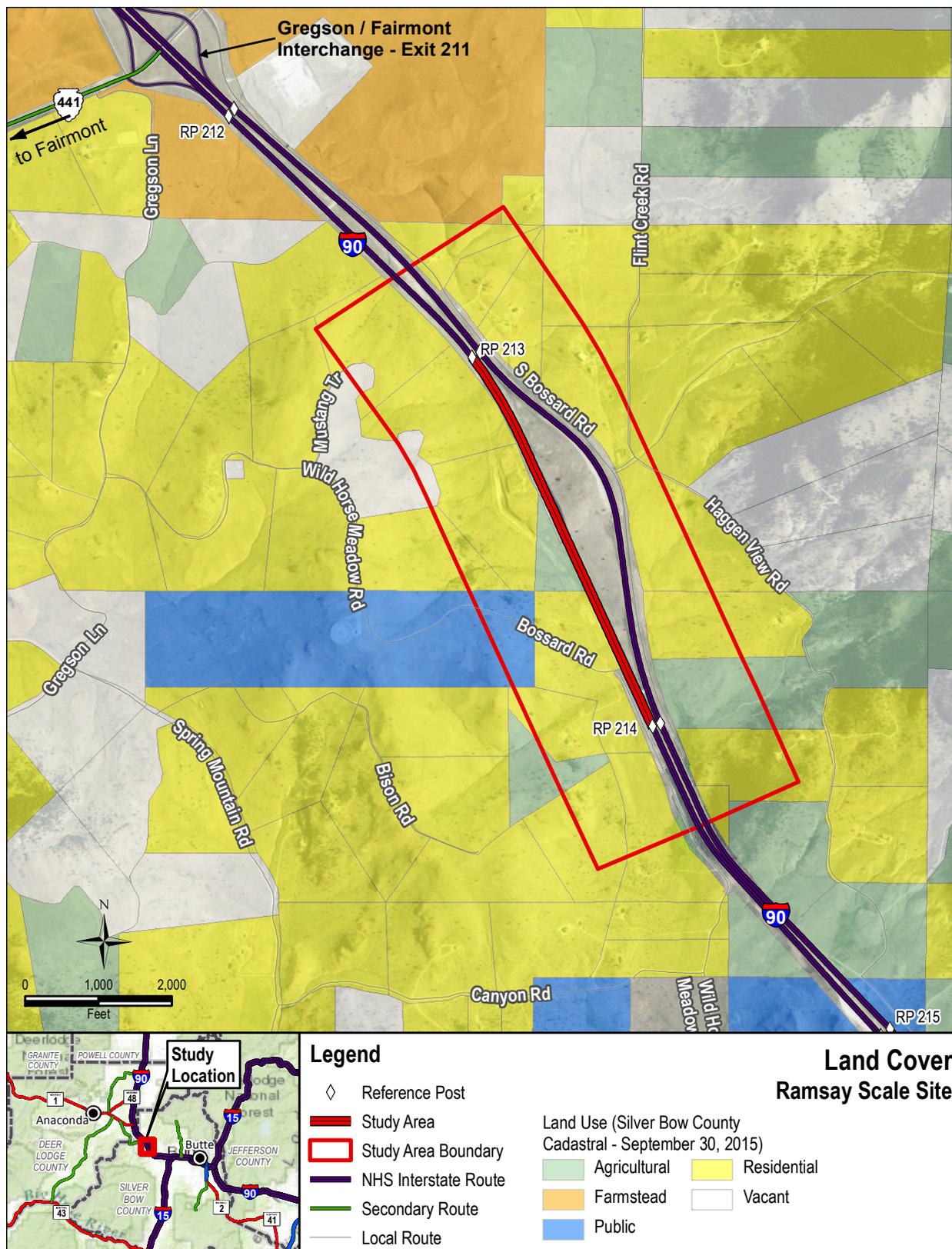


Figure 4: Land Use within the Environmental Scan Area

Butte-Silver Bow County has adopted Subdivision Regulations to help regulate land use and development. However there is no zoning regulation on most rural lands in the county.

## 3.0 PHYSICAL RESOURCES

### 3.1. GEOLOGIC RESOURCES

Bedrock geology in this area is dominated by rocks of the Boulder Batholith and associated volcanic and metamorphic rocks. Local valleys are dominantly fault-controlled structural basins that contain variable thicknesses of sediments. The surface geology within the Environmental Scan Area is depicted on the Geologic Map of the Butte 1° x 2° Quadrangle produced by the Montana Bureau of Mines and Geology (MBMG) in 1998. **Figure 5** presents a portion of the geologic map encompassing the Environmental Scan Area. As the figure shows, I-90 in the Environmental Scan Area crosses two geologic map units—Lowland Creek Volcanics (map unit T1c) and sedimentary deposits and rocks (map unit Ts). The Lowland Creek Volcanics consist of rhyolite and dacite flows and tuffs. The sedimentary deposits and rocks consist of fan and gravel deposits on pediment surfaces, conglomerate, sandstone, mudstone, and volcanic ash beds. These materials are associated with formations dating to the Tertiary period some 50 million years ago.

The *Geologic Map of the Upper Clark Fork River Valley of Southwestern Montana* (2004) also produced by the MBMG provides additional details of surface geology in the Environmental Scan area. The geologic map shows minor areas of gravel, sand, silt, and clay along active and intermittent streams (map unit Qal), areas altered by man (shown as “m” on **Figure 5**) and sand and gravel pits (shown as “sg” on **Figure 5**) in the scan area.

Montana is considered to be seismically-active. Most seismic activity occurs in western portions of the state generally west of a Livingston-Great Falls-Cut Bank line. According to the *Seismic-Hazard Map for the State of Montana*, the Environmental Scan Area is in a moderate seismic risk zone. The *Geologic Map of the Upper Clark Fork River Valley of Southwestern Montana* (2004) shows a north-south trending fault crossing I-90 near the eastern limits of the scan area.

MDT completed a Rockfall Hazard Classification and Mitigation System research project in September 2005. As a result of the project, MDT implemented the Rockfall Hazard Rating System (RHRS) to provide the information needed to help make informed decisions on where to invest the limited funding available for rockfall mitigation. The project, which had a statewide scope, did not identify any potential rockfall hazard sites along I-90 in the scan area.

Geotechnical investigations would be required for the development of a new scale site along I-90 in the Environmental Scan Area to determine potential stability, erosion, and settlement concerns posed by surface geology and soil conditions.

### 3.2. PRIME AND IMPORTANT FARMLAND

The *Farmland Protection Policy Act* (FPPA) (7 U.S.C. 4201 et. seq.) requires special consideration be given to soils designated as prime farmland, unique farmland, or farmland of statewide or local importance by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. Farmland subject to FPPA requirements does not have to be currently used for cropland. The FPPA does not apply to lands already in or committed to urban development.



Prime farmland soils are those that have the best combination of physical and chemical characteristics for producing food, feed, and forage; the area must also be available for these uses. Prime farmland can be either non-irrigated or lands that would be considered prime if irrigated. Farmland of statewide importance is land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use. The NRCS uses a land evaluation and site assessment (LESA) system to establish a farmland conversion impact rating score on proposed sites of Federally-funded and assisted projects. The assessment is completed using the Farmland Conversion Impact Rating Form (form AD-1006) for specific locations or the CPA-106 Farmland Conversion Impact Rating Form for Linear Projects.

Information about prime or unique farmlands and farmland of statewide or local importance in the Environmental Scan Area was obtained in October 2015 from the Web Soil Survey (WSS), an online resource for soil maps, available from the NRCS. The NRCS information showed no soils classified as prime, unique, or important farmland in the Environmental Scan Area. The development of a new scale site would not be subject to the FPPA since no farmland would be directly or indirectly converted to nonagricultural use.

### 3.3. WATER RESOURCES

#### 3.3.1. Surface Water Resources

The Environmental Scan Area includes few surface water resources based on a review of USGS topographic maps, aerial photographs, and the National Hydrography Dataset. These data sources show a system of surface drainages but few named streams in the general scan area. Flint Creek, the nearest named perennial stream, is located about 1.2 miles north of I-90 in this area. Silver Bow Creek is situated about 1.5 miles south of I-90 within the Environmental Scan Area.

The Silver Bow Creek Headwaters watershed (HUC #1701020102) of the Upper Clark Fork Subbasin encompasses more than 360 square miles in the northern half of Butte-Silver Bow County between the Continental Divide east of Butte and Warm Springs Creek in adjoining Anaconda-Deer Lodge County. Lands in the Environmental Scan Area fall within the Silver Bow Creek-White Pine Creek Subwatershed (HUC #170102010209) which drains approximately 43 square miles and the Silver Bow Creek-McCleery Gulch Subwatershed (HUC #170102010205) which drains about 61 square miles.

**Figure 6** shows surface waters and drainages within the Environmental Scan Area. There are no named streams in the scan area and the majority of the surface water features shown are ephemeral drainages. An intermittent stream with associated wetlands exists near the southern boundary of the scan area. A natural divide crosses I-90 at about RP 213.3. East of this point, surface drainages generally flow south towards Silver Bow Creek. West of RP 213.3, surface drainages trend to the northwest to ultimately join Silver Bow and Flint Creeks.

**Surface Water Quality.** The Montana Department of Environmental Quality (MDEQ) is the state agency responsible for implementing certain components of the federal Clean Water Act. As directed by the Montana Water Quality Act, MDEQ prepares an Integrated Report every two years listing the status of water quality for waterbodies under state jurisdiction. The Integrated Report provides information about “impaired” or threatened waterbodies and the overall condition of waterbodies under the state’s jurisdiction. Surface waters that have been classified as impaired for one or more beneficial uses are included on the 303(d) List maintained by MDEQ.

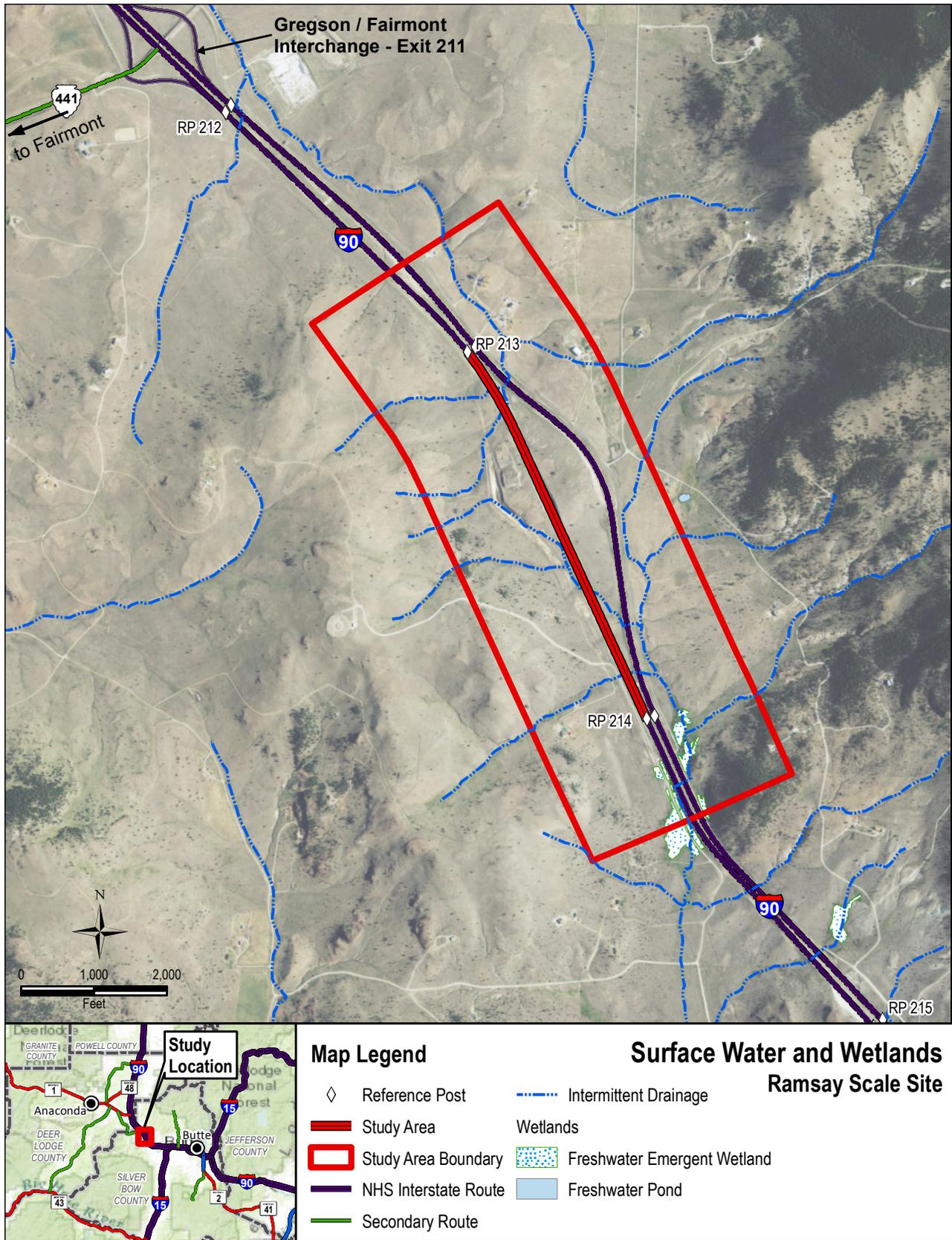


Figure 6: Surface Water Resources in the Environmental Scan Area

There are no surface waters in the Environmental Scan Area on the current 303(d) List.

### 3.3.2. Irrigation Features

The Environmental Scan Area contains no irrigation features or historically irrigated lands based on the National Hydrography Dataset or the *Water Resource Survey for Silver Bow County* published in 1955.

### 3.3.3. Stormwater

Construction of a new scale site may trigger the need to obtain coverage under the Montana Pollutant Discharge Elimination System (MPDES) General Permit for Storm Water Discharges Associated with Construction Activity. The scan area is not located within a Municipal Separate Storm Sewer System (MS4) area.

### 3.3.4. Groundwater Resources

As of October 21, 2015, records maintained by the Groundwater Information Center (GWIC) at the Montana Bureau of Mines and Geology show there are 3,903 wells on record in Butte-Silver Bow County with about 58 percent of the wells drilled to depths of less than 100 feet. The most common uses for wells drilled in the county are for domestic use and for purposes of monitoring groundwater.

Seven wells are located within the Environmental Scan Area. Well depths vary by individual location but the majority of the wells drilled in the Environmental Scan Area have been drilled to depths ranging from 300 to 520 feet. Static water levels vary considerably at wells in the scan area and range from 70 to 240 feet below the ground surface.

**Figure 7** shows the locations of public water supply and domestic wells in the scan area.

## 3.4. WETLANDS

Wetlands are lands on which water covers the soil or is present either at or near the surface of the soil or within the root zone, all year or for varying periods of time during the year, including during the growing season. The repeated or prolonged presence of water at or near the soil surface is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands can be identified by the existence of plants adapted to life in the soils that form under flooded or saturated conditions characteristic of wetlands. Wetlands include marshes, bogs, the shallow portions and shorelines of lakes, ponds, and reservoirs, and the floodplain and shoreline of streams.

The following definition of wetland is the regulatory definition used by the EPA and the COE:

*“Those areas that are inundated or saturated by surface or ground water (hydrology) at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation (hydrophytes) typically adapted for life in saturated soil conditions (hydric soils). Wetlands generally include swamps, marshes, bogs, and similar areas” (40 CFR 232.2(r)).*

Jurisdictional wetlands—those that are regulated by the COE under Section 404 of the Clean Water Act—must exhibit all three characteristics: wetland hydrology, hydrophytic vegetation, and hydric soils.

The U.S. Fish and Wildlife Service (USFWS) is the principal federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has compiled mapping to show wetlands and deepwater habitats in the US including many parts of Montana, and has made this mapping

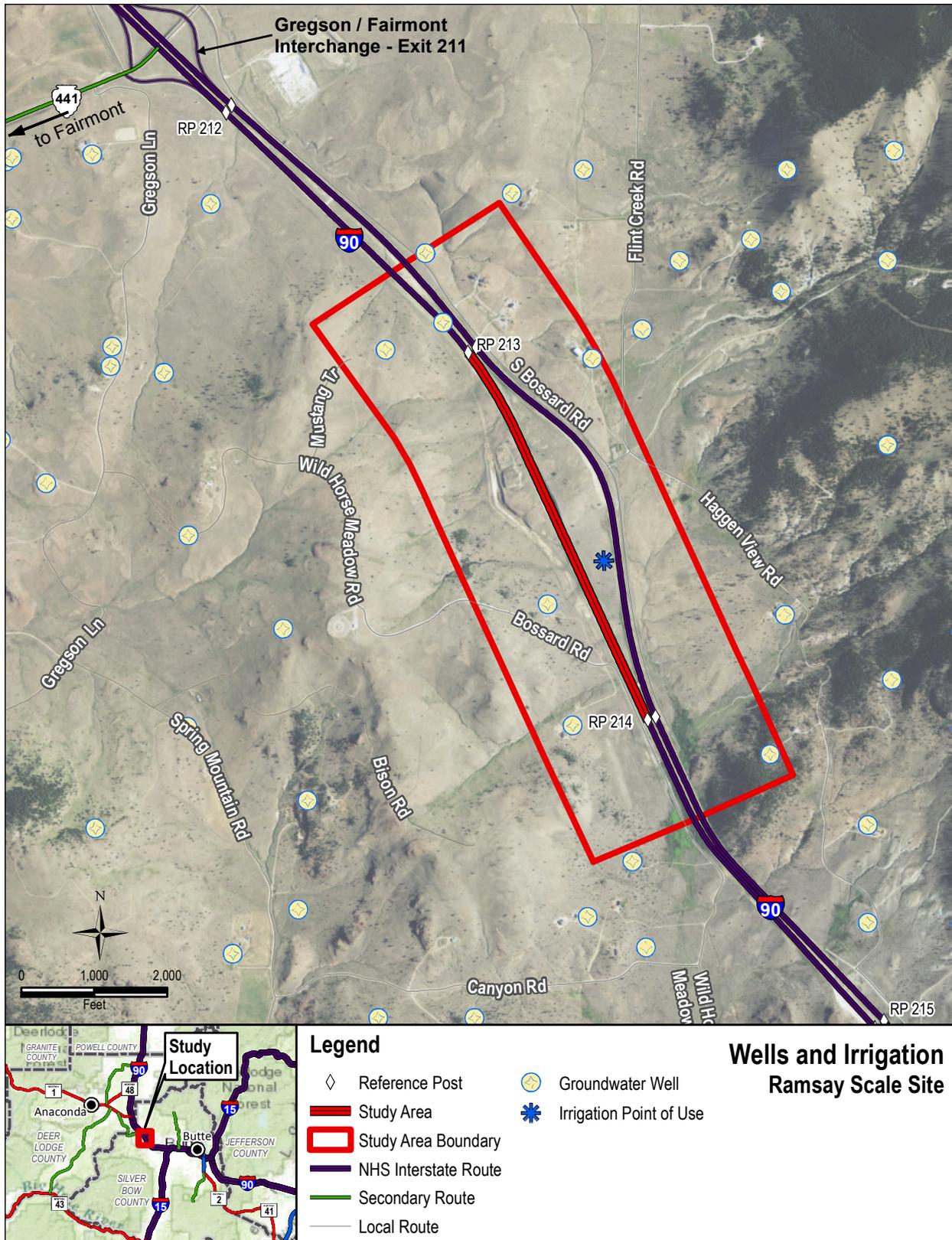


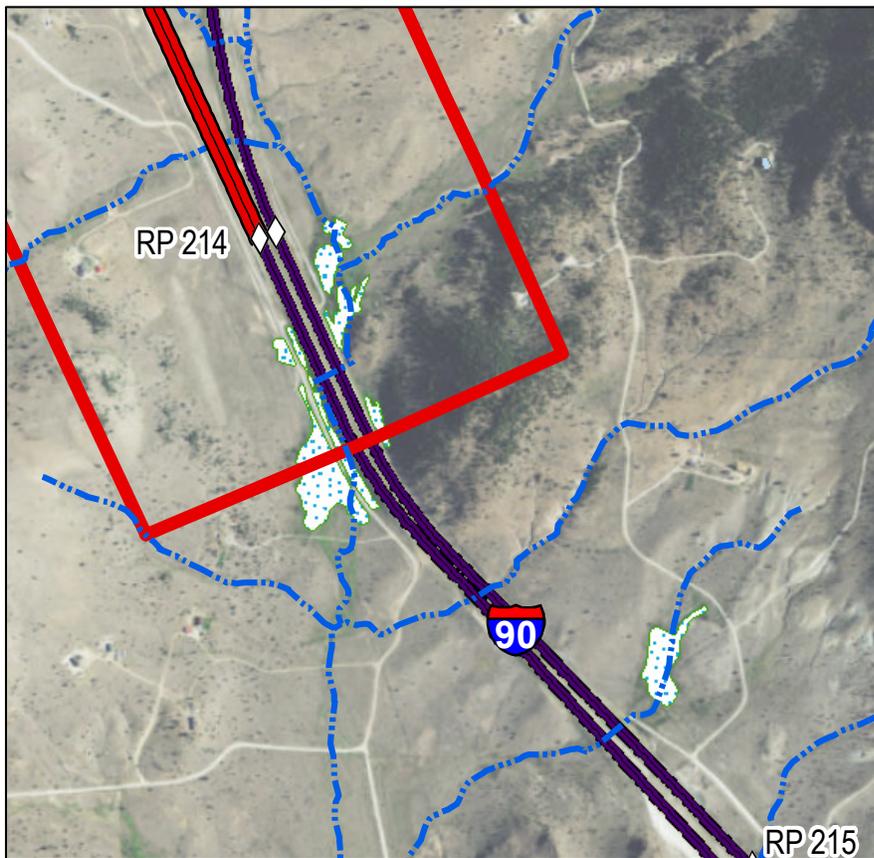
Figure 7: Public Water Supplies and Domestic Wells in the Environmental Scan Area

available through the National Wetlands Inventory (NWI). NWI wetlands are identified in general accordance with USFWS’s publication *Classification of Wetlands and Deep Water Habitats of the United States* (Cowardin et al., 1979). It should be noted that NWI maps do not define wetlands for regulatory purposes since the wetlands are identified through aerial photo interpretation. The NWI definition of wetlands is broader than the regulatory definition used by the COE in that it only requires one or more of the three attributes of wetlands (wetland hydrology, vegetation, or soils) be present to be a wetland.

A detail of the NWI mapping for the Environmental Scan Area (shown previously in **Figure 6**) is provided below. **Figure 8** shows freshwater emergent wetlands (wetland map code PEMA) in a wet meadow area on both sides of I-90 along the intermittent drainage southeast of RP 214. A representative photograph of the wetland area is shown below.

If a project is advanced, a wetland impact evaluation must be conducted during the project development process. This evaluation would include a formal delineation of potentially affected wetlands sites, development of site data forms, wetland classification and functional assessment, and the identification of potential impacts to wetlands sites. Wetland jurisdictional determinations will also need to be done during the project development process. This information is typically summarized in the Biological Resources Report and/or Aquatics Finding Report prepared for highway projects.

Wetland impacts should be avoided or minimized to the greatest extent practicable. All unavoidable wetland impacts will be mitigated as required by the COE and in accordance with policies.



Emergent wetland area between EB I-90 and Bossard Road.

Figure 8: Detail of Freshwater Emergent Wetlands within the Environmental Scan Area

### 3.5. WILD AND SCENIC RIVERS

The Wild and Scenic Rivers Act, created by Congress in 1968, provided for the protection of certain selected rivers, and their immediate environments, that possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. In 1976, Congress designated portions of two rivers in Montana—the Flathead River and the Missouri River—as wild, scenic, or recreational components of the National Wild and Scenic River System.

There are no Wild and Scenic River segments in or near the Environmental Scan Area.

### 3.6. FLOODPLAINS (EO 11988) AND FLOODWAYS

Floodplains are the flat or nearly flat land adjacent to a stream or river that experiences occasional or periodic flooding. The floodplain includes the “floodway” which consists of the stream channel and adjacent areas that carry flood flows and the “flood fringe” includes the area covered by the flood.

Executive Order (EO) 11988, Floodplain Management, and FHWA’s floodplain regulations (23 CFR 650, Subpart A) requires that efforts be taken to reduce the risk of flood loss; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains. The natural and beneficial values of floodplains include providing habitat for fish, wildlife, plants, open space, natural flood moderation, water quality maintenance, and groundwater recharge. EO 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

Compliance with these directives requires an evaluation of a proposed project and its alternatives to determine the effects of any encroachments on the “base” floodplain. The base floodplain is the area covered by water from the 100-year flood and is a regulatory standard used by federal agencies and states to administer floodplain management programs. The 100-year flood represents a flood event that has a 1 percent chance of being equaled or exceeded in any given year.

The Federal Emergency Management Agency (FEMA) has developed maps showing flood zones according to varying levels of risk as part of the National Flood Insurance Program. The agency’s Flood Insurance Rate Maps (FIRMs) or Flood Hazard Boundary Maps are used to help assess the risk from flooding by floodplains and flood hazard areas. The Environmental Scan Area is covered by FIRM Panel 30093C0140E with an effective date of January 6, 2012.

The FEMA-issued flood map shows a “Zone A” floodplain area between RPs 214 and 215 at the eastern edge of the Environmental Scan Area. Zone A denotes a Special Flood Hazard Area (SFHA) for lands without established flood elevations that may be subject to the 100-year flood. The delineated floodplain area is likely outside the section of I-90 that would be affected by the development of a new scale site.

**Figure 9** shows floodplains within the Environmental Scan Area.

Should a project be advanced, the potential risk of flooding would need to be analyzed to determine the potential for any effects on delineated floodplains. If impacts are anticipated, coordination with Butte-Silver Bow County would be necessary to determine the need for a floodplain permit and/or ensure the project is developed in accordance with local floodplain regulations.

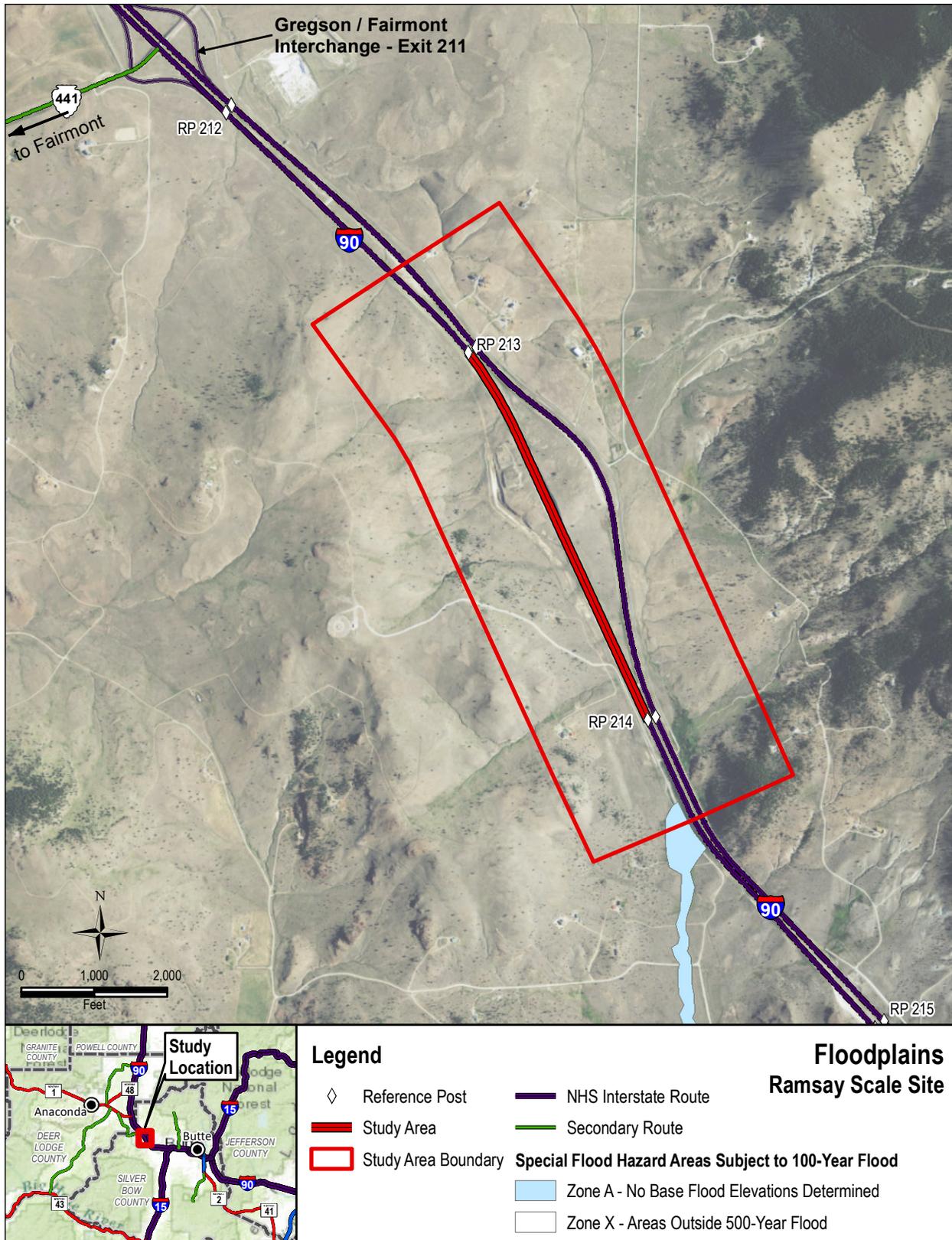


Figure 9: Delineated Floodplains within the Environmental Scan Area

### 3.7. HAZARDOUS MATERIALS

Information about the existence of underground storage tank (UST) sites, leaking underground storage tank (LUST) sites, abandoned mine sites, remediation response sites, landfills, National Priority List (NPL) sites, hazardous waste, crude oil pipelines, and toxic release inventory sites in the Environmental Scan Area was obtained from the Montana Natural Resource Information System (NRIS) database and from MDEQ's online interactive website and databases.

**National Priority List (Superfund) Sites.** The National Priorities List (NPL) is the list of hazardous waste sites throughout the United States and its territories eligible for long-term remedial action financed under the federal Superfund program. A Superfund site is any land that has been contaminated by hazardous waste and identified by the U.S. Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

The cleanup of Silver Bow Creek has been ongoing since 1999 as part of a Superfund remedial action being coordinated by the MDEQ in consultation with the EPA. Silver Bow Creek extends from Butte approximately 23 miles to the Warm Springs Ponds situated at the headwaters of the Clark Fork River. In 1983, EPA listed the Silver Bow Creek/Butte area as one of multiple Superfund sites in the Upper Clark Fork River Basin. The agency later designated the approximately 23 stream miles of streamside tailings along Silver Bow Creek as an operable unit (OU) within this overall Superfund site. Tailings deposited in the floodplain are toxic to plants and have resulted in a floodplain that is largely devoid of vegetation and is generally incapable of supporting wildlife. Remedy construction began in 1996 and is ongoing. The Streamside Tailings Operable Unit (SSTOU) is located within 2 miles of the Environmental Scan Area.

**Toxic Release Inventory Sites.** The EPA's Toxic Release Inventory (TRI) contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment. Manufacturers of these chemicals are required to report the locations and quantities of chemicals stored on-site to state and local governments. There are no TRI sites within the Environmental Scan Area.

**Underground Storage Tanks.** No underground storage tanks (USTs) were identified within the Environmental Scan Area.

**Leaking Underground Storage Tanks.** No Leaking Underground Storage Tank (LUST) sites were identified within the Environmental Scan Area.

**Remediation Response Sites.** No remediation response sites were identified within the Environmental Scan Area.

**Abandoned and Inactive Mine Sites.** No abandoned and inactive mines as documented by the MDEQ's Abandoned Mine Section, Remediation Division are located within the Environmental Scan Area.

**Petroleum or Natural Gas Pipelines.** No petroleum or natural gas pipelines were identified within the Environmental Scan Area.

**Open Cut Permits.** Open cut permits are permits required for the mining and processing of materials specified in the Open Cut Mining Act (i.e. sand, gravel, soil, bentonite, clay, scoria, and peat). No open cut permits were identified within the Environmental Scan Area. However, a permitted open cut site exists southeast of the I-90 Gregson Interchange.

**Landfills.** There are no landfills in the Environmental Scan Area.

### 3.8. AIR QUALITY

The Clean Air Act (CAA) of 1970, as amended, is the basis for air pollution control programs. In accordance with the Act, the EPA established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> /PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), and lead (Pb). The NAAQS are health-based standards to protect human health and public welfare and set allowable concentrations and exposure limits for each criteria pollutant.

Montana has also established air quality standards for criteria pollutants, as well as for settleable particulates and visibility. The Montana Ambient Air Quality Standards (MAAQS)—found in the *Administrative Rules of Montana* (ARM) 17.8.210 – 17.8.230—establish statewide targets for acceptable levels of ambient air pollutants.

The EPA and the MDEQ are charged with regulating air quality and may designate areas as attainment or nonattainment based on their history of meeting the NAAQS or MAAQS for pollutants of concern. Areas where air pollution levels do not exceed the air pollution thresholds established in the NAAQS are designated as “attainment” areas. “Nonattainment areas” are localities where air pollution levels persistently exceed the NAAQS or MAAQS, or that contribute to ambient air quality in a nearby area that fails to meet standards. An area that has been designated as non-attainment in the past, but that now complies with the NAAQS, is classified as a “maintenance” area.

In 1991, the Butte-Silver Bow region was designated by MDEQ as a nonattainment area for PM<sub>10</sub> meaning that concentrations of particulate matter exceed state standards for PM<sub>10</sub>. As such, an implementation plan to reduce pollutants that cause excessive particulate levels was developed for the Butte PM<sub>10</sub> Nonattainment Area.

The Environmental Scan Area is not located within the boundaries of the Butte PM<sub>10</sub> Nonattainment Area and is therefore considered to be an attainment area for all NAAQS pollutants.

**Transportation Conformity.** Should a project be advanced, it will be necessary to address transportation conformity considerations. Transportation conformity applies in all nonattainment and maintenance areas for criteria pollutants and is meant to help ensure the proposed activities will not cause or contribute to any new violations of the NAAQS; increase the frequency or severity of NAAQS violations; or delay timely attainment of the NAAQS or any required interim milestone. A project located in an area that is in attainment of the NAAQS for all regulated criteria pollutants is not subject to conformity.

Since the Environmental Scan Area is considered to be in attainment, a project to develop a new scale site within this section of I-90 would not be subject to transportation conformity.

**Mobile Source Air Toxics (MSAT).** In 2001, EPA issued its first Mobile Source Air Toxics Rule, which identified 21 mobile source air toxic (MSAT) compounds as being hazardous air pollutants that required regulation. Several of these MSAT compounds— benzene, 1,3-butadiene, formaldehyde, acrolein, acetaldehyde, diesel particulate matter plus diesel exhaust organic gases (diesel PM)—were identified as toxic compounds posing notable risks to health. MDT must evaluate its proposed projects to determine the need for and nature of further MSAT analyses.

Projects with low potential MSAT effects include those intended to improve operations without substantially increasing capacity or without creating a new facility that would affect emissions. Projects with higher potential MSAT effects include those that: 1) create or significantly alter a major inter-modal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; (2) create new or add significant capacity to high-volume urban highways; (3) are proposed to be

located in proximity to populated areas or in rural areas near concentrations of vulnerable populations; or (4) otherwise have the potential to substantially increase future MSAT emissions.

MDT's *Environmental Manual* includes a work flow chart summarizing the process to be followed to determine whether a project has the potential for MSAT effects and if an MSAT analysis is required based on FHWA's "*Interim Guidance Update on Air Toxic Analysis in NEPA Documents.*" Factors considered in making these determinations include:

- Whether the project qualifies as a categorical exclusion under 23 CFR771.117(c);
- Whether the project is exempt from transportation conformity;
- Whether the project affects traffic volumes or vehicle mix; and
- Whether the project creates or significantly alters a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location.

Building a new truck weigh station has the potential for creating MSAT effects. As project development activities advance, an evaluation should occur to determine if a new scale site along this section of I-90 has the potential for MSAT effects. If a potential for MSAT effects exists, the required level of analysis for such effects must be identified and performed.

### 3.9. NOISE

Highway projects can cause noise levels to increase for affected receivers, during project construction and/or from operation of the highway facility. Should a project be advanced with federal or state funds, it will be necessary to establish whether the project is a "Type I Project" as defined in 23 CFR 772.5(h).

Type I projects involve:

- construction of a highway on new location;
- the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes; or
- the potential for creating a traffic noise impact (e.g., idling vehicles at rest areas, weigh stations).

The *MDT Traffic Noise Analysis and Abatement Policy (Noise Policy)* provides additional guidance about Type I projects as defined in 23 CFR772. The *Noise Policy* specifically identifies "the addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza" as a Type I project.

As a Type I project, a detailed noise analysis using the latest approved version of FHWA's Traffic Noise Model (TNM) would be required to evaluate potential impacts due to the development of a new scale site. Rural homes in the scan area comprise sensitive noise receptors and potential noise impacts from changes in truck traffic patterns and idling vehicles at the scale facility would be the primary concerns. Detailed noise analyses typically include measurements of ambient noise levels at selected receivers and modeling design year noise levels using projected traffic volumes. Noise abatement measures would be considered if noise levels *approach* or *substantially exceed* the FHWA's Noise Abatement Criteria. If traffic noise impacts are shown to exist or are anticipated in the future, then feasible and reasonable noise abatement methods to reduce traffic noise impacts are considered.

Construction activities associated with building a new scale site may result in localized and temporary noise impacts in the area if the scale site is situated near occupied home sites. These impacts can be minimized by using standard MDT specifications for the control of noise sources during construction.

## 4.0 VISUAL RESOURCES

The visual resources of an area include the features of its landforms, vegetation, water surfaces and cultural modifications (physical changes caused by human activities) that give the landscape its visual character and aesthetic qualities. Landscape features, natural appearing or otherwise, form the overall impression of an area. Visual resources are typically assessed based on landscape character (what is seen), visual sensitivity (human preferences and values regarding what is seen), scenic integrity (degree of intactness and wholeness in landscape character), and landscape visibility (relative distance of seen areas) of a geographically defined view shed.

The Environmental Scan Area encompasses a wide variety of settings including open grasslands and foothills areas, roadway corridors for I-90 and county roads, and scattered rural residences. Photographs illustrating typical views from the I-90 corridor in the scan area are provided below.



View to the southwest from EB I-90 near RP 213.4



View to the northeast from top of cut near RP 213.4



View to the southeast from EB I-90 near RP 214



View to the northwest from WB I-90 near RP 213.8

Should a scale site project be advanced, the proposed project will need to be reviewed to assess its potential for visual quality impacts. Actions that may have visual impacts include projects on new location or that involve expansion, realignment or other changes that could alter the character of an existing landscape or move the roadway closer to residential areas, parks and recreation areas, historic or other culturally important resources.

## 5.0 BIOLOGICAL RESOURCES

Existing information on wildlife, habitat, and special status species known to occur or that may potentially occur in the Environmental Scan Area was reviewed from a variety of sources including the U.S. Fish and Wildlife Service (USFWS), MFWP, and the Montana Natural Heritage Program (MNHP).

This review of biological resources was limited and intended only to provide a representation of the type and extent of wildlife, plants, and habitat found in the Environmental Scan Area. If a project is advanced, consultations with MFWP field biologists will occur and a biological resource survey of the project area will be conducted during the project development process. These activities typically yield important wildlife and habitat use information that can help evaluate the project and its potential effects and identify appropriate mitigation measures.

### 5.1. WILDLIFE AND HABITAT

The variety of wildlife in the Environmental Scan area is largely a function of the diversity of habitat types found including riparian zones adjacent to the region's streams and rivers, grasslands, wetlands, agricultural lands, and forested mountains and foothills. Each of these ecological settings provide suitable habitat types for several wildlife species. The wildlife resources found within the Environmental Scan Area are discussed further in the following sections.

Wildlife resources will need to be reviewed during a future project development process. MFWP should be contacted during the project development process for local expertise regarding the wildlife resources and habitat present in the area.

#### 5.1.1. Wildlife Resources

The MNHP *Species Snapshot* webpage (available at <http://mtnhp.org/SpeciesSnapshot/>) indicates Butte-Silver Bow County is home to 212 species of birds, 62 mammal species, 18 fish species, 4 reptile species, and 4 amphibian species.

According to a MNHP General Observation Report for the broad area including the Environmental Scan Area, the most common forms of wildlife found are species tolerant of some level of human disturbance. These include a variety of mammals (elk, mule deer, mountain lions, red fox, ground squirrels, raccoons, skunks, porcupine, mice and voles), a few amphibians and reptiles (frogs, toads, gartersnakes), hawks, golden eagles, ruffed grouse, and a number of other common birds.

**Migratory Bird Treaty Act.** The Migratory Bird Treaty Act (MBTA) and Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds" provide protection for migratory bird species including protection of their nests and eggs. Under the MBTA, it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Direct disturbance of an occupied (with birds or eggs) nest is prohibited under the law. The destruction of unoccupied nests of eagles; colonial nesters such as cormorants, herons, and pelicans; and some ground/cavity nesters such as burrowing owls or bank swallows may be prohibited under the MBTA.

The USFWS *Birds of Conservation Concern* report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act (ESA). According to the *Information, Planning, and Conservation System (IPAC) Trust Resource Report* for the Environmental Scan Area obtained from the USFWS website on

October 21, 2015, 20 migratory birds could potentially occur within the Environmental Scan area. The complete *IPAC Trust Resource Report* can be found in **Appendix B**.

**Bald and Golden Eagle Protection Act.** According to the *IPAC Trust Resource Report*, bald eagles and golden eagles are among several raptor species that may occur within the Environmental Scan Area. MDT files indicate no bald eagle or golden eagle nests are located in the scan area and the nearest known nests are about 8 miles to the north near the Warm Springs Ponds. However, it is possible bald and golden eagles could periodically be seen in the scan area during foraging activities or general movements through the area.

The bald eagle, listed under the Endangered Species Act (ESA) in 1973, has recovered in Montana and was officially delisted in 2007. Although no longer protected under the ESA, the species remains protected under the Bald and Golden Eagle Protection Act and the MBTA. While there is no formal process or requirement for consultation with the USFWS under the Bald and Golden Eagle Protection Act, agencies and others are encouraged to follow the *National Bald Eagle Management Guidelines* and the *Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan, 1994*. The Guidelines advise landowners, land managers and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the Eagle Act may apply to their activities. The Montana Guidelines should be followed to help prevent the disturbance of nesting eagles in the area.

**Important Bird Areas.** The National Audubon Society has taken the lead in implementing the Important Bird Area (IBA) Program in the U.S. IBAs are identified areas that sustain healthy populations of birds (usually species of concern) so that efforts can be directed to implementing conservation measures and habitat protection actions to help sustain the sites. There are no designated IBAs in Butte-Silver Bow County.

**Aquatic Resources.** Information about fish distribution in Butte-Silver Bow County streams available through the MFWP's Montana Fisheries Information Database (MFISH) was reviewed during October 2015. There are no named perennial streams in the Environmental Scan Area so no surface waters from within the scan area appear on the MFISH database. Nearby Flint Creek is included on the MFISH database, but no fish distribution data is available for the stream.

## 5.2. THREATENED AND ENDANGERED WILDLIFE SPECIES

The Endangered Species Act of 1973, as amended (16 USC 1531 et seq.) protects listed threatened, endangered, proposed, and candidate plant and animal species and their critical habitats. The purpose of Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend.

A species listed as "endangered" is one that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is one that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Proposed species are those species that are proposed in the Federal Register to be listed under the ESA. Candidate species are species for which the USFWS has sufficient information on biological status and threats to propose to list them as threatened or endangered. However, none of the substantive or procedural provisions of the ESA applies to candidate species.

Under the ESA, *critical habitat* is defined as a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management considerations or protection.

Section 7 of the ESA is the mechanism by which federal agencies ensure the actions they take, including those they fund or authorize, do not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitats. This process ensures that federally listed, candidate, and proposed species receive full consideration in the decision-making process prior to project implementation.

The USFWS maintains an online database of currently listed species for Montana counties, and National Forests, National Parks, and Indian Reservations within the state. The database was accessed in October 2015 to identify the listed wildlife species that could potentially occur within Butte-Silver Bow County. **Table 1** identifies the federally-listed species potentially occurring in Butte-Silver Bow County and provides information about habitats preferred by these species.

**Table 1: USFWS Endangered, Threatened, Proposed, and Candidate Wildlife Species in Butte-Silver Bow County (as of October 2015)**

Common Name (Scientific Name)	USFWS Status	Habitat Requirements
<b>Bull Trout</b> ( <i>Salvelinus confluentus</i> )	Listed Threatened	Bull trout are found in the Clark Fork and Flathead drainages of western Montana. Sub-adult and adult fluvial bull trout reside in larger streams and rivers and spawn in smaller tributary streams, whereas adfluvial bull trout reside in lakes and spawn in tributaries. The upper Clark Fork River and its tributaries (including Warm Springs Creek located about 8 miles from the scan area) are designated as Critical Habitat for bull trout. The Environmental Scan Area lacks perennially flowing streams that could provide habitat for bull trout.
<b>Grizzly Bear</b> ( <i>Ursos artos horribilis</i> )	Listed Threatened	In Montana, Grizzly Bears primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slabrock habitats. Grizzly habitat requirements are determined by large spatial needs for omnivorous foraging, winter denning, behavior, and security cover. Large roadless areas are ideal as year round grizzly habitat. The Environmental Scan Area is located beyond the recovery zones for the Northern Continental Divide Ecosystem and Yellowstone Ecosystem. However; it is possible grizzly bears or their sign may be seen in areas outside these ecosystems, including lands within or near the Environmental Scan Area.
<b>Canada Lynx</b> ( <i>Lynx canadensis</i> )	Listed Threatened	Lynx typically occur in mesic coniferous boreal, sub-boreal, and western montane forests that are subject to cold, snowy winters and support a prey base of snowshoe hare. Lynx are most likely to persist in areas of deep, powdery snow, for which this species is highly adapted. Denning habitat generally consists of log piles, windfalls, or dense vegetation that provide security for kittens. West of the Divide in Montana, Canada Lynx generally occur in subalpine forests at elevations between 4,000 to 7,000 feet in stands composed of pure lodgepole pine but also mixed stands of fir, pine, larch, and hardwoods. The Environmental Scan Area lacks the high elevation forested habitat preferred by lynx in Montana. The nearest suitable habitat is located in the higher elevation mountainous areas west and south of the scan area.

Source: USFWS, List of Endangered, Threatened, Proposed and Candidate Species Montana Counties accessed October 21, 2015.

It is conceivable, but relatively unlikely, that grizzly bears and Canada lynx may pass through the Environmental Scan Area as the species travel to or from more desirable habitat. However, traffic within the I-90 corridor, lack of suitable cover, and human activities associated scattered rural home sites may be factors that cause grizzly bears and Canada lynx to avoid the scan area.

If a project is forwarded, consultation with the USFWS will be necessary and an evaluation of potential impacts to all listed species will need to be completed as part of the project development process.

### 5.3. MONTANA ANIMAL SPECIES OF CONCERN

Wildlife species of concern are native Montana animals that are considered to be “at risk” due to declining population trends, threats to their habitats, and/or restricted distribution. The Montana Natural Heritage Program (MNHP) serves as the state's information source for animals, plants, and plant communities that are rare, threatened and are at risk or potentially at risk of extinction in Montana.

Designation of a species as a Montana Animal Species of Concern (or Potential Species of Concern) is not a statutory or regulatory classification. The designation as a Species of Concern provides a basis for resource managers and decision-makers to make proactive decisions regarding species conservation and data collection priorities. Each Species of Concern is assigned a state numeric rank ranging from S1 (highest risk, greatest concern) to S5 (demonstrably secure, least concern) reflecting the degree of risk to each species based on available information. Other state ranks applied to Species of Concern include: SU (unrankable due to insufficient information), SH (historically occurred), and SX (believed to be extinct). State ranks may be followed by modifiers, such as B (breeding), N (non-breeding), or M (migratory).

The MNHP was contacted in October 2015 to conduct a file search for occurrences of animal species of concern within the Environmental Scan Area. MNHP’s database search identified only one animal species of concern—Preble’s Shrew (*Sorex preblei*)—potentially occurring on sagebrush grassland habitat in the scan area. Preble’s shrews have a state assigned status of S3. The species is not federally listed under the ESA and other federal agencies have not assigned a special status designation to the species. The species occurrence map provided by MNHP showed Preble’s shrews could occur throughout the scan area. The MNHP identified three other species of concern that could potentially occur within the general area including Clark’s Nutcracker (*Nucifraga Columbiana*), the Hoary Bat (*Lasiurus cinereus*), and Wolverines (*Gulo gulo*). However, the occurrence map provided by MNHP does not show these species as occurring within the scan area established by MDT.

**Appendix C** contains a graphic with occurrence data for species of concern.

The data provided by MNHP reflects the current status of data collection efforts by the agency. These results of the database search conducted for this Environmental Scan are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys. If a project is forwarded, a determination will need to be made if there is a need for any on-site surveys for wildlife species of concern during the project development process. If an on-site survey is conducted and species of concern are present, then special conditions that apply to the project design and/or during construction should be considered to avoid or minimize impacts to identified species.

### 5.4. CRUCIAL AREAS PLANNING INFORMATION

The MFWP implemented a web-based tool to help identify and evaluate the fish, wildlife and recreational resources of Montana. The Crucial Areas Planning System (CAPS) is a mapping service intended to provide useful and non-regulatory information about highly valued fish and wildlife resources and recreation areas during the early planning stages of projects.

In April 2015, MFWP revised their CAPS website to provide information consistent with that available from the Western States’ Crucial Habitat Assessment Tool (CHAT) website maintained by the Western Association of Fish and Wildlife Agencies (WAFWA). The change helps ensure preliminary landscape scale planning information is available on a regional scale for the western U.S.

**Appendix D** includes several maps presenting information obtained from the CHATS and CAPS online mapping tools. These planning tools provide only a general overview of the Environmental Scan Area since the data may or may not apply at a project-level scale. Highlights from the mapping obtained for the scan area are provided below:

- The scan area contains lands ranked as Classes 2 and 3 for *Crucial Habitat*. Under the ranking system, Class 1 is the highest ranking and Class 6 is the lowest ranking.
- All lands in the scan area ranked as Class 2 through Class 5 for their *Landscape Connectivity* value.
- Lands in the scan area ranked as Class 1 for occurrence of *Species of Economic and/or Recreational Importance*.
- Class 3 *Habitat for a Species of Concern* exists in a portion of the scan area.

The CAPS/CHAT information is not a substitute for a site-specific evaluation of fish, wildlife, and recreational resources within the Environmental Scan Area and follow-up consultations with MFWP field biologists should occur if a scale site project is advanced.

## 5.5. VEGETATION

According to the Montana Natural Heritage Program (MNHP) *Landcover Report*, the primary landcover types in the Environmental Scan Area are Rocky Mountain Lower Montane, Foothill, and Valley Grassland and Rocky Mountain Subalpine-Upper Montane Grassland interspersed with areas of Montane Sagebrush Steppe land. Grassland systems in the area are typified by cool-season perennial bunch grasses (Idaho fescue, bluebunch wheatgrass and Western wheatgrass) and forbs with a sparse shrub cover. Shrubs seen in the area are generally dominated by sagebrush species. **Figure 10** presents a land cover map for the scan area.

If a scale site project is advanced, practices outlined in MDT standard specifications should be followed to minimize adverse impacts to vegetation and facilitate establishment of final stabilization of disturbed areas. Removal of mature trees and shrubs should be limited to the extent practicable.

### 5.5.1. Threatened and Endangered Plants

The online database of threatened, endangered, proposed, and candidate species maintained by the USFWS lists the whitebark pine (*Pinus albicaulis*) as a Candidate species occurring in Butte-Silver Bow County. Whitebark pines typically occur in isolated stands on cold and windy high-elevation or high-latitude sites in western North America. This habitat does not exist in the Environmental Scan Area.

### 5.5.2. Plant Species of Concern

The MNHP conducted a file search to identify any plant species of concern occurring within the Environmental Scan Area. The file search did not identify any plant species of concern in the scan area.

The results of the MNHP database search are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys. If a project is forwarded, a determination will need to be made if there is a need for any on-site surveys for plant species of concern during the project development process.

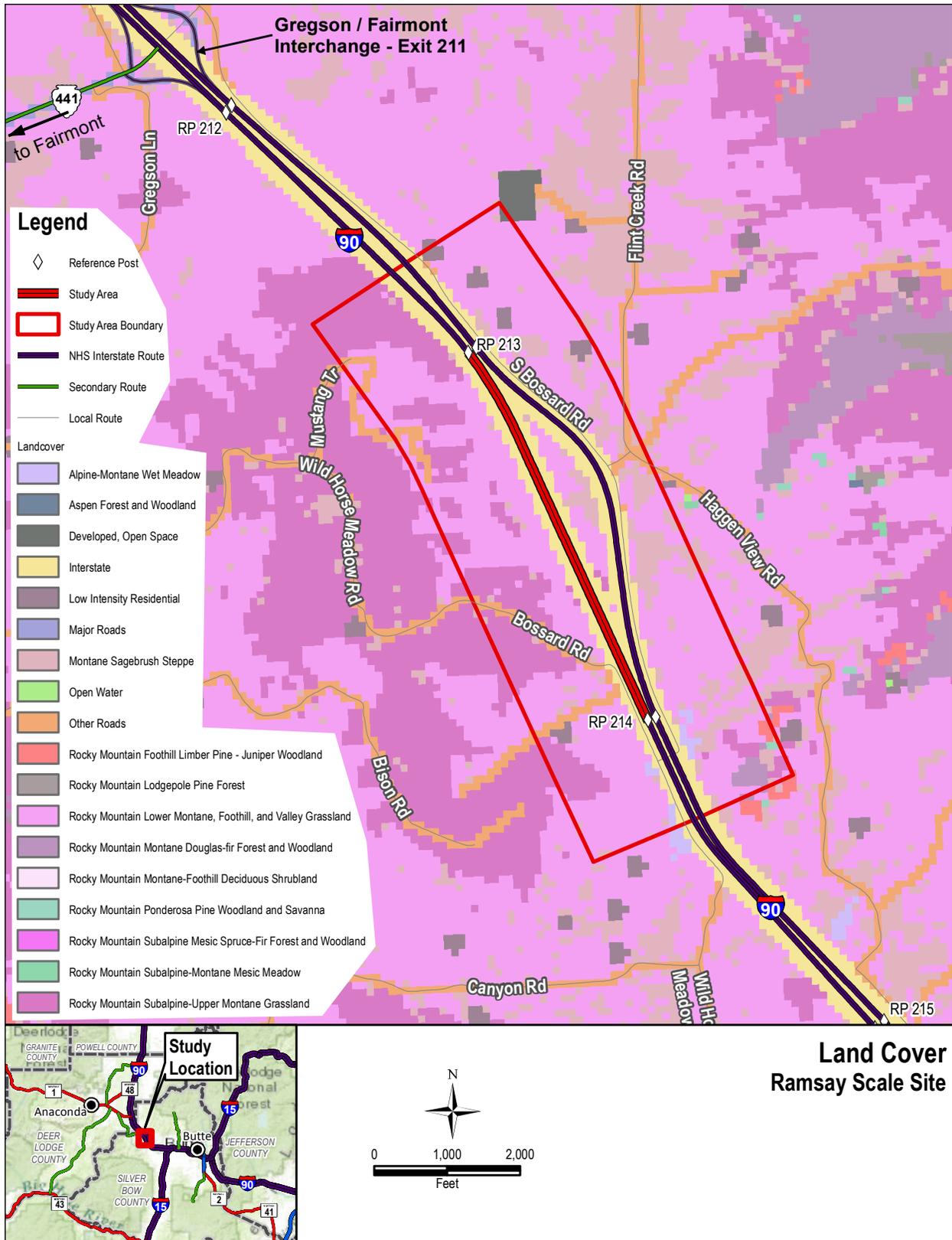


Figure 10: Land Cover Map for the Environmental Scan Area

### 5.5.3. Noxious Weeds

Noxious weeds cause the loss of wildlife habitat, displace native plant species, reduce forage production for livestock and crop production, contribute to soil erosion and soil sedimentation, and adversely affect recreational value and uses of Montana's lands. According to the Montana County Noxious Weed Control Law (MCA 7-2101 through 2153), noxious weeds are defined as being any exotic plant species that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses, or that may harm native plant communities.

According to the *Montana Noxious Weed List* (effective July 2015) maintained by the Montana Department of Agriculture, there are 33 state-designated noxious weeds and 5 additional regulated plant species. These species have been assigned various priorities (1A, 1B, 2A, 2B, and 3) based on the number of acres infested and management criteria within the state.

The Montana *Invaders Database* lists occurrences of 14 state-listed noxious weeds and 79 exotic species within Butte-Silver Bow County since 1875. The *Invaders Database* system queries for noxious and exotic species in the county and the current Montana Noxious Weed List can be found in **Appendix E**.

Butte-Silver Bow County has established a weed management district encompassing all city and county lands and formed a weed board has implemented and manages a noxious weed program within the district.

If a project is forwarded, a field survey for noxious weeds within the project area will need to be completed during the project development process. Coordination with the Butte-Silver Bow County Weed District Supervisor should begin during project development and continue through design activities to establish the need for any specific guidance for noxious weed control at the new scale site.

## 6.0 CULTURAL AND ARCHAEOLOGICAL RESOURCES

### 6.1. SECTION 106 RESOURCES

Section 106 of the National Historic Preservation Act (36 CFR 800) establishes requirements for taking into account the effects of proposed Federal, Federally assisted or Federally licensed undertakings on any district, site, building, structure or object included in or eligible for inclusion in the National Register of Historic Places (NRHP). Other directives impose additional requirements that must be addressed regarding effects of proposed undertakings on historic and archaeological resources and paleontological sites including:

- Section 4(f) of the US Department of Transportation Act (23 USC 138, 49 USC 303);
- Archaeological Resources Protection Act (16 USC 470aa, et seq.);
- Native American Graves Protection and Repatriation Act (25 USC 3001-3013);
- Montana Antiquities Act (MCA 22-3-421 et seq.); and
- Montana Human Skeletal Remains and Burial Site Protection Act (MCA 22-3-800 et seq.).

Compliance with these applicable laws will be required if a project is forwarded. Applicable laws will vary depending upon the funding sources for the proposed project.

**CRIS/CRABS File Search Results.** A Cultural Resource Information System (CRIS) and Cultural Resource Annotated Bibliography System (CRABS) file search was conducted for the Environmental Scan Area in October 2015. The CRABS file search indicates 6 cultural resource surveys have been conducted on lands that are within or near the Environmental Scan Area between 1977 and 2014. The

CRIS file search identified 4 previously recorded properties within Section 9 of Township 3 North, Range 9 West which comprises part of the Environmental Scan Area. These previously recorded sites include concentrations of lithic and historical materials and a historic irrigation system. Complete file search results from SHPO can be found in **Appendix F**.

**Table 2** lists previously recorded sites by their assigned Smithsonian Site Number, resource type, and NRHP eligibility status for previously recorded cultural resource sites within the Environmental Scan Area. As the table shows, the NRHP-eligibility status for each of the previously recorded sites in the area has not been determined. There may be other unknown cultural sites located within the Environmental Scan Area that have not been identified and recorded.

**Table 2: Summary of Section 106 Resources in the Environmental Scan Area**

Smithsonian Site #	Type of Resource	Location	National Register Eligibility Status
24SB0633	Lithic Material Concentration	T3N, R9W, SW¼ Sec 9	Undetermined
24SB0634	Historic Depression/Historic Material Concentration	T3N, R9W, NW¼ Sec 9	Undetermined
24SB0635	Historic Irrigation System	T3N, R9W, SW¼ Sec 9	Undetermined
24SB0926	Lithic Material Concentration	T3N, R9W, SE¼ Sec 9	Undetermined

Source: Montana Historical Society, CRIS File Search Results, 10/13/2015.

If a project is forwarded, a cultural resource survey of the Area of Potential Effect (APE) for the scale site project as specified in Section 106 of the National Historic Preservation Act would need to be conducted. Section 106 outlines a process to identify historic properties that could be affected by the undertaking, assess the effects of the project and investigate methods to avoid, minimize or mitigate any adverse effects on previously recorded and newly discovered historic or archaeological resources. Special protections to these cultural resources are afforded protection under Section 4(f) of the Transportation Act. This is discussed further in the next section.

## 6.2. SECTION 4(F) RESOURCES

Section 4(f) of the Department of Transportation Act of 1966, which is codified and renumbered as 49 USC, Section 303(c), provides that “the Secretary of Transportation will not approve any program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance or land from an historic site of national, State, or local significance as determined by the officials having jurisdiction thereof, unless there is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from the use.”

Prior to approving a project that “uses” a Section 4(f) resource, FHWA must find that there is no prudent or feasible alternative that completely avoids 4(f) resources. “Use” can occur when land is permanently incorporated into a transportation facility or when there is a temporary occupancy of the land that is adverse to a 4(f) resource. Constructive “use” can also occur when a project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under 4(f) are “substantially impacted.”

**Public Parks, Public Recreation Areas, and Wildlife and Waterfowl Refuges.** Publicly owned land is considered to be a park, recreation area or wildlife and waterfowl refuge when the land has been officially designated as such by a Federal, State or local agency, and the officials with jurisdiction over the land

determine that its primary purpose is as a park, recreation area, or refuge. The requirements of Section 4(f) apply if the entire public park or recreation area permits visitation of the general public at any time during the normal operating hours.

There are no public parks, recreation areas, or wildlife or waterfowl refuges within the Environmental Scan Area.

**Public Multiple Use Landholdings.** A portion of an isolated 160-acre tract of Beaverhead-Deerlodge National Forest land is located west of I-90 within the Environmental Scan Area. This USFS land provides wildlife habitat and dispersed recreational opportunities. Section 4(f) only applies to areas within a multiple-use public property that are specifically managed for park, recreation or refuge purposes. The USFS land in the Environmental Scan Area would not be subject to Section 4(f).

**Significant Historic Sites.** Section 4(f) applies to all historic sites of national, state, or local significance and typically protects *only* historic or archeological properties on or eligible for inclusion on the NRHP. Within historic districts, Section 4(f) applies to the use of those properties that are considered contributing to the eligibility of the historic district, as well as any individually eligible property within the district.

Within or directly adjacent to the Environmental Scan Area, there are four historic properties with an undetermined NRHP-eligibility status. These properties represent potential Section 4(f) resources unless further review clearly establishes the properties are not eligible for the NRHP.

**Section 4(f) Resources in the Environmental Scan Area.** Table 3 lists resources within or directly adjacent to the Environmental Scan Area that may potentially be subject to Section 4(f).

**Table 3: Summary of Potential Section 4(f) Resources in the Environmental Scan Area**

Name	Type of 4(f) Resource	Comments /Location
24SB0633	Lithic Material Concentration	Undetermined NRHP eligibility status for site in T3N, R9W, SW¼ Sec 9 potentially represents a 4(f) property. Unlikely to be affected by scale site development.
24SB0634	Historic Depression/Historic Material Concentration	Unresolved NRHP eligibility status for site in T3N, R9W, NW¼ Sec 9 potentially represents a 4(f) property
24SB0635	Historic Irrigation System	Undetermined NRHP eligibility status for site in T3N, R9W, SW¼ Sec 9 potentially represents a 4(f) property. Unlikely to be affected by scale site development.
24SB0926	Lithic Material Concentration	Undetermined NRHP eligibility status for site in T3N, R9W, SE¼ Sec 9 potentially represents a 4(f) property. Unlikely to be affected by scale site development.
Beaverhead-Deerlodge National Forest Land	Public Multiple Use Property	Not subject to Section 4(f) based on management for multiple uses. Unlikely to be affected by development of a new I-90 scale site.

Sources: Montana Historical Society, CRIS File Search Results, 10/13/2015.

If a project is advanced, further research and coordination will be necessary to determine the applicability of Section 4(f) for any identified resources potentially affected by the project.

### 6.3. SECTION 6(F) PROPERTIES

Section 6(f) of the Land and Water Conservation Fund Act (LWCF) (16 USC, Section 4601 et. seq.) provides funds for buying or developing public use recreational lands through grants to local and state

governments. Section 6(f)(3) of the Act prevents conversion of lands purchased or developed with LWCF funds to non-recreation uses, unless the Secretary of the Department of the Interior (DOI), through the National Park Service (NPS), approves the conversion. Conversion may only be approved if the conversion is consistent with comprehensive statewide outdoor recreation plan in force when the approval occurs, and the converted property is replaced with other recreation property of reasonably equivalent usefulness and location and at least equal fair market value.

A review of LWCF grants in Butte-Silver Bow County maintained by NPS shows no grants were received for projects in or near the Environmental Scan Area.

In addition to LWCF funds, it is possible that lands can be encumbered through the use of federal funding from the Federal Aid in Fish Restoration Act (Dingell-Johnson Act), the Federal Aid in Wildlife Act (Pittman-Roberson Act), or other similar laws. Other than the tract of USFS land discussed earlier, there are no public landholdings in the Environmental Scan Area.

## 7.0 DEMOGRAPHICS

A brief review of demographics and socioeconomic information within the Environmental Scan Area was conducted in an effort to help understand trends in population, age, race and ethnicity, and the economic status of area residents. Understanding the composition of the population is necessary, as the data may influence the types of improvements that are identified. For example, the presence of a disadvantaged population may warrant special considerations.

### 7.1. POPULATION AND GROWTH

**Table 4** presents population and growth statistics for Butte-Silver Bow County and compares them with similar data for the State of Montana and the United States. Over the 2000-2010 period, the population in Butte-Silver Bow County decreased by 1.1 percent. This is in contrast to the 9.7 percent increase in population seen over the same period in the State of Montana and the nation.

**Table 4: Population Growth Trends and Population Density**

Area	Estimated Population (July 1, 2014)	Population (2010)	Population (2000)	Percent Growth 2000-2010	Persons per Square Mile (2010)
Butte-Silver Bow County	34,680	34,200	34,606	-1.1%	47.6
State of Montana	1,023,579	989,415	902,195	9.7%	6.8
United States	318,857,056	308,745,538	281,421,906	9.7%	87.4

Source: US Bureau of the Census, *Census of the Population*.

As of July 1, 2014, Butte-Silver Bow County had an estimated population of 34,680. This estimate suggests Butte-Silver Bow County’s population has increased by about 1.4 percent since the time of the 2010 Census. The populations of the State of Montana and the United States grew by 3.4 percent and 3.3 percent, respectively, over the same period.

According to the 2010 Census, Butte-Silver Bow County had a population density of 47.6 persons per square mile. This was significantly higher than the population density for the State of Montana in 2010. Based on the 2014 estimated population, the population density in Butte-Silver Bow County is 48.3 persons per square mile.

Block-level population data from the 2010 Census was reviewed to help estimate the number of residents living in or around the Environmental Scan Area. Based on the population totals for all Census blocks within or crossed by the scan area boundary, 90 people lived near this section of I-90 in 2010. Since the scan area includes only small portions of several large Census blocks, the population within the Environmental Scan Area would be considerably less than 90 residents.

**Population Projections.** County level population projections are available from Montana Department of Commerce Census & Economic Information Center (CEIC). The CEIC projections were developed by Regional Economic Models, Inc. (eREMI) and provide complete annual demographic forecasts through 2060 for the State of Montana and each county.

**Table 5** presents the eREMI baseline county level projections of population for Butte-Silver Bow County through the year 2035. The eREMI baseline projection shows that the county’s population may increase slightly through the year 2025 before declining to near current levels by the year 2035.

**Table 5: Population Projections for Butte-Silver Bow County**

Projection Source	2014 Estimated Population	2015	2020	2025	2030	2035
eREMI Projection	34,680	34,406	35,014	35,542	35,487	34,845

Sources: eREMI - a product of Regional Economic Models, Inc. ([www.remi.com](http://www.remi.com)) - Released April 2013. Compiled by the Census & Economic Information Center, MT Dept. of Commerce; available at <http://ceic.mt.gov/Population/PopProjectionsTitlePage.aspx>

## 7.2. RACE AND ETHNIC COMPOSITION

In addition to population growth characteristics and density, it is desirable to understand the racial composition of residents in Butte-Silver Bow County. **Table 6** depicts the race and ethnicity characteristics in the county, the State of Montana, and the United States for the most recent census.

**Table 6: Population Race and Ethnicity Data - In Persons and Percent of Total (2010)**

Race or Ethnicity	Butte-Silver Bow County		State of Montana		United States	
<b>Total Population</b>	<b>34,200</b>		<b>989,415</b>		<b>308,745,538</b>	
White	32,292	94.4%	884,961	89.4%	223,553,265	72.4%
Black or African American	111	0.3%	4,027	0.4%	38,929,319	12.6%
American Indian and Alaska Native	655	1.9%	62,555	6.3%	2,932,248	0.9%
Asian	165	0.5%	6,253	0.6%	14,674,252	4.8%
Native Hawaiian and Other Pacific Islander	23	< 0.1%	668	0.1%	540,013	0.2%
Some Other Race	233	0.7%	5,975	0.6%	19,107,368	6.2%
Two or More Races	721	2.1%	24,976	2.5%	9,009,073	2.9%
Hispanic or Latino (of any race)	1,253	3.7%	28,565	2.9%	50,477,594	16.3%

Source: US Bureau of the Census, *Census of the Population*.

It is apparent from the data in **Table 6** that the percentages of minority populations in Butte-Silver Bow County are well below corresponding percentages for the State of Montana and the United States.

### 7.3. AGE AND INCOME CHARACTERISTICS

To provide a general indication of the age and income characteristics of residents in Butte-Silver Bow County, **Table 7** presents several key statistics which are commonly used to define these characteristics and compares them to similar statistics for the State of Montana and United States.

**Table 7** shows the population of Butte-Silver Bow County is older than the population of Montana and the nation. The county also has a higher share of residents 65 years and older than seen in populations for the State of Montana and the United States.

A review of income statistics showed both median household income and per capita income levels for residents of Butte-Silver Bow County were notably below the statewide and national averages. The county also had a larger percentage of residents living below the poverty level than the other geographies considered.

**Table 7: Other Socio-Economic Statistics**

Area	Median Age	65 years and over (%)	Median Household Income	Per Capita Income	Persons Below Poverty Level (%)
Butte-Silver Bow County	41.6	16.3%	\$38,659	\$23,562	19.1%
State of Montana	39.9	15.3%	\$46,230	\$25,373	15.2%
United States	37.3	13.4%	\$53,046	\$28,155	15.4%

*Source: American Community Survey 2009-2013, US Bureau of the Census, Census of the Population.*

### 7.4. ENVIRONMENTAL JUSTICE

Title VI of the US Civil Rights Act of 1964, as amended (USC 2000(d)) and Executive Order (EO) 12898 require that no minority, or, by extension, low-income person shall be disproportionately adversely impacted by any project receiving federal funds. For transportation projects, this means that no particular minority or low-income person may be disproportionately isolated, displaced, or otherwise subjected to adverse effects.

If a project is forwarded, the potential for affecting Environmental Justice populations will need to be further considered during the project development process.

## 8.0 CONCLUSION

This report is intended to identify the existing environmental resources and conditions within the Environmental Scan Area that may be potentially affected by the proposed development of a new scale site along the eastbound lanes of I-90. As a planning level scan, the information has been obtained from various reports, websites and other documentation. This scan is not a detailed environmental investigation; however, information contained in this report may be used to help support future NEPA/MEPA analysis for a new scale site project within the scan area.

*Alternative accessible formats of this document will be provided upon request. Persons who need an alternative format should contact the Office of Civil Rights, Department of Transportation, 2701 Prospect Avenue, PO Box 201001, Helena, MT 59620. Telephone 406-444-9229. Those using a TTY may call 1(800)335-7592 or through the Montana Relay Service at 711.*

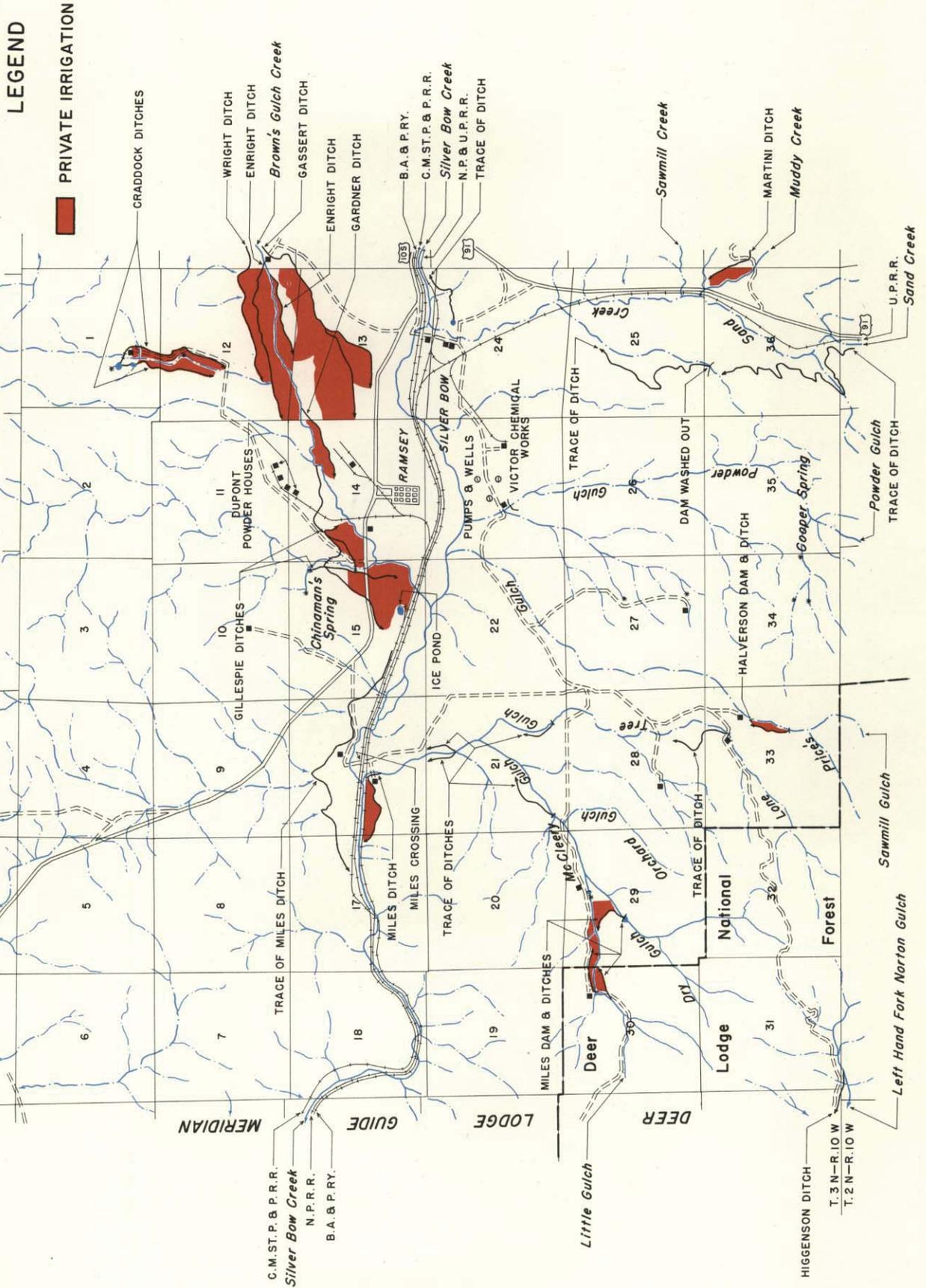
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## **APPENDIX A: WATER RESOURCES SURVEY MAP OF IRRIGATION SYSTEMS**

Twp. 3 NORTH  
Rge. 9 WEST



LEGEND

PRIVATE IRRIGATION

## **APPENDIX B: USFWS IPAC TRUST RESOURCE REPORT**

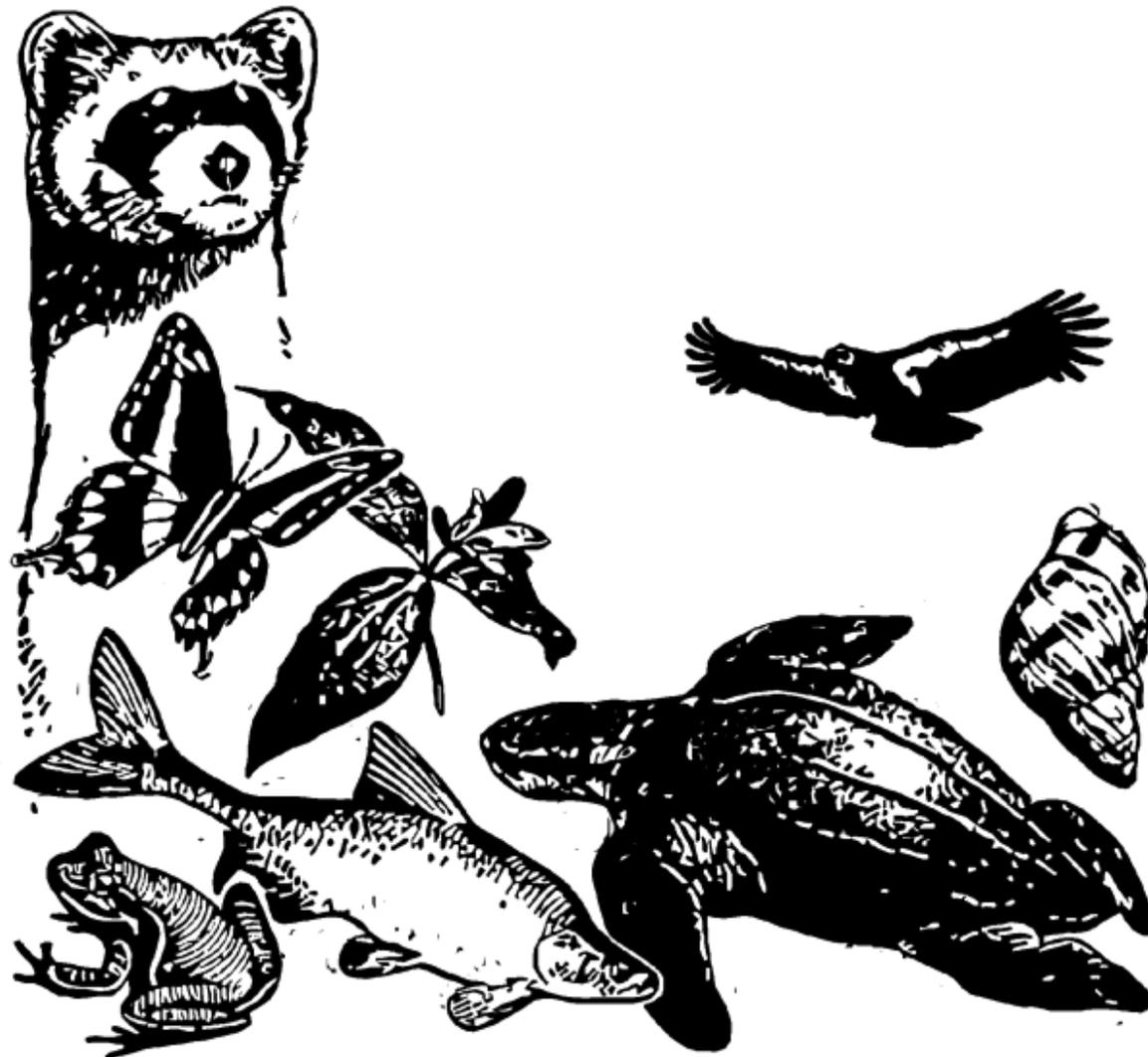
# I-90 EB Scale Site-Ramsay; STPX 90-4(73)214; UPN 8797000

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## *IPaC Trust Resource Report*

Generated October 21, 2015 03:04 PM MDT

This report is for informational purposes only and should not be used for planning or analyzing project-level impacts. For projects that require FWS review, please return to this project on the IPaC website and request an official species list from the Regulatory Documents page.



US Fish &amp; Wildlife Service

# IPaC Trust Resource Report



## Project Description

**NAME**

I-90 EB Scale Site-Ramsay; STPX  
90-4(73)214; UPN 8797000

**PROJECT CODE**

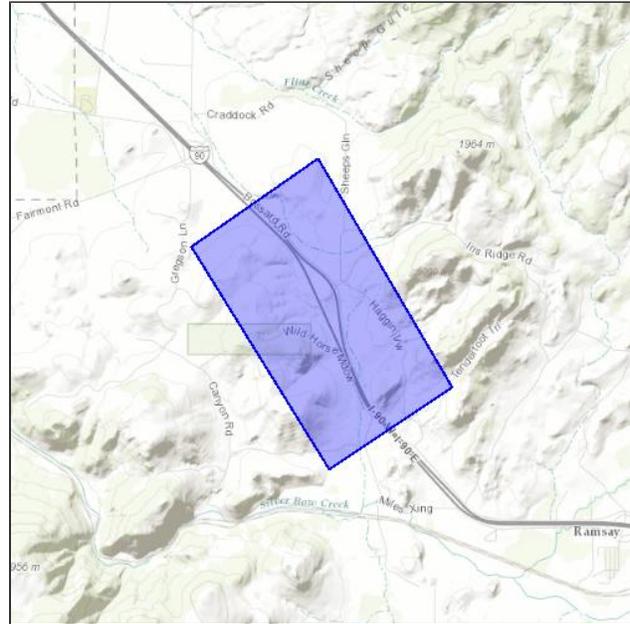
IGYV7-MXB2R-B7FO2-BYLG6-6YOHWM

**LOCATION**

Silver Bow County, Montana

**DESCRIPTION**

Develop new truck scale site



## U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

**Montana Ecological Services Field Office**

585 Shepard Way, Suite 1

Helena, MT 59601-6287

(406) 449-5225

# Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an official species list on the Regulatory Documents page.

## Conifers and Cycads

**Whitebark Pine** *Pinus albicaulis*

Candidate

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=R00E>

## Mammals

**Canada Lynx** *Lynx canadensis*

Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=A073>

**Grizzly Bear** *Ursus arctos horribilis*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=A001>

## Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<p><b>American Bittern</b> <i>Botaurus lentiginosus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3</a></p>	<b>Bird of conservation concern</b>
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>            Year-round  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008</a></p>	<b>Bird of conservation concern</b>
<p><b>Brewer's Sparrow</b> <i>Spizella breweri</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HA">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HA</a></p>	<b>Bird of conservation concern</b>
<p><b>Calliope Hummingbird</b> <i>Stellula calliope</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K3">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K3</a></p>	<b>Bird of conservation concern</b>
<p><b>Cassin's Finch</b> <i>Carpodacus cassinii</i>            Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Common Tern</b> <i>Sterna hirundo</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09G">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09G</a></p>	<b>Bird of conservation concern</b>
<p><b>Fox Sparrow</b> <i>Passerella iliaca</i>            Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Golden Eagle</b> <i>Aquila chrysaetos</i>            Year-round  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DV">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DV</a></p>	<b>Bird of conservation concern</b>
<p><b>Lewis's Woodpecker</b> <i>Melanerpes lewis</i>            Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Loggerhead Shrike</b> <i>Lanius ludovicianus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY</a></p>	<b>Bird of conservation concern</b>
<p><b>Long-billed Curlew</b> <i>Numenius americanus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06S">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06S</a></p>	<b>Bird of conservation concern</b>

<b>Mountain Plover</b> <i>Charadrius montanus</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B078">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B078</a>	<b>Bird of conservation concern</b>
<b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN</a>	<b>Bird of conservation concern</b>
<b>Peregrine Falcon</b> <i>Falco peregrinus</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU</a>	<b>Bird of conservation concern</b>
<b>Rufous Hummingbird</b> <i>selasphorus rufus</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0E1">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0E1</a>	<b>Bird of conservation concern</b>
<b>Short-eared Owl</b> <i>Asio flammeus</i> Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD</a>	<b>Bird of conservation concern</b>
<b>Sprague's Pipit</b> <i>Anthus spragueii</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0GD">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0GD</a>	<b>Bird of conservation concern</b>
<b>Swainson's Hawk</b> <i>Buteo swainsoni</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070</a>	<b>Bird of conservation concern</b>
<b>Williamson's Sapsucker</b> <i>Sphyrapicus thyroideus</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX</a>	<b>Bird of conservation concern</b>
<b>Willow Flycatcher</b> <i>Empidonax traillii</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6</a>	<b>Bird of conservation concern</b>

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

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

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

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

## DATA EXCLUSIONS

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

## DATA PRECAUTIONS

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

## Freshwater Emergent Wetland

**PEMA**

8.39 acres

## Freshwater Pond

**PABF<sub>x</sub>**

0.375 acre



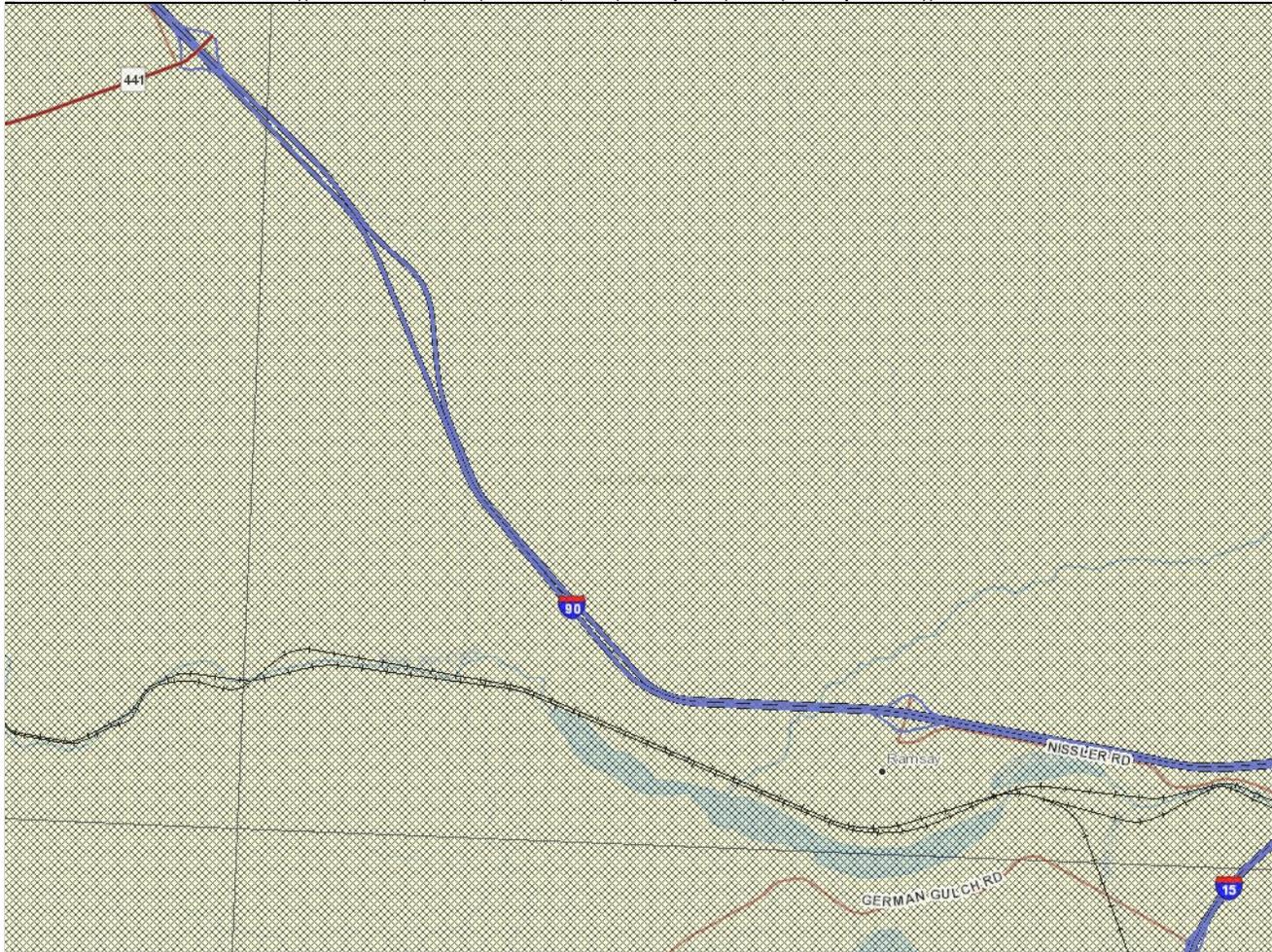
Latitude 45.98104  
Longitude -112.63019  
46.06977 -112.79251



Montana Generalized Observations Report

Report generated 10/30/2015 10:32:47 AM

Generalized Observations for ((All Mammals) and (All Birds) and (All Reptiles) and (All Amphibians))



⊕ Mammals - Bobcat ( <i>Lynx rufus</i> )	Obs Count: 7	Earliest Obs:	Recent Obs:
⊕ Mammals - Columbian Ground Squirrel ( <i>Urocyon columbianus</i> )	Obs Count: 2	Earliest Obs: 1962	Recent Obs: 2010
⊕ Mammals - Deer Mouse ( <i>Peromyscus maniculatus</i> )	Obs Count: 36	Earliest Obs: 1961	Recent Obs: 2014
⊕ Mammals - Elk ( <i>Cervus canadensis</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
⊕ Mammals - Golden-mantled Ground Squirrel ( <i>Callospermophilus lateralis</i> )	Obs Count: 1	Earliest Obs: 1935	Recent Obs: 1935
⊕ Mammals - Hoary Bat ( <i>Lasiurus cinereus</i> )	Obs Count: 3	Earliest Obs: 2009	Recent Obs: 2009
⊕ Mammals - Masked Shrew ( <i>Sorex cinereus</i> )	Obs Count: 2	Earliest Obs: 1961	Recent Obs: 2009
⊕ Mammals - Meadow Vole ( <i>Microtus pennsylvanicus</i> )	Obs Count: 3	Earliest Obs: 1962	Recent Obs: 2014
⊕ Mammals - Montane Vole ( <i>Microtus montanus</i> )	Obs Count: 3	Earliest Obs: 1961	Recent Obs: 1962
⊕ Mammals - Mountain Lion ( <i>Puma concolor</i> )	Obs Count: 1	Earliest Obs: 1995	Recent Obs: 1995
⊕ Mammals - Mule Deer ( <i>Odocoileus hemionus</i> )	Obs Count: 2	Earliest Obs: 1971	Recent Obs: 1972
⊕ Mammals - Preble's Shrew ( <i>Sorex preblei</i> )	Obs Count: 4	Earliest Obs: 1961	Recent Obs: 2009
⊕ Mammals - Red Squirrel ( <i>Tamiasciurus hudsonicus</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
⊕ Mammals - Sagebrush Vole ( <i>Lemmyscus curtatus</i> )	Obs Count: 1	Earliest Obs: 1961	Recent Obs: 1961
⊕ Mammals - Silver-haired Bat ( <i>Lasionycteris noctivagans</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
⊕ Mammals - Southern Red-backed Vole ( <i>Myodes gapperi</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
⊕ Mammals - Western Small-footed Myotis ( <i>Myotis ciliolabrum</i> )	Obs Count: 2	Earliest Obs: 2009	Recent Obs: 2009
⊕ Mammals - Yellow-pine Chipmunk ( <i>Tamias amoenus</i> )	Obs Count: 3	Earliest Obs: 2009	Recent Obs: 2014
⊕ Birds - American Crow ( <i>Corvus brachyrhynchos</i> )	Obs Count: 2	Earliest Obs: 2009	Recent Obs: 2009
⊕ Birds - American Robin ( <i>Turdus migratorius</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010

☒ Birds - Bank Swallow ( <i>Riparia riparia</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Black-billed Magpie ( <i>Pica hudsonia</i> )	Obs Count: 5	Earliest Obs: 1994	Recent Obs: 2009
☒ Birds - Black-capped Chickadee ( <i>Poecile atricapillus</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Brewer's Sparrow ( <i>Spizella breweri</i> )	Obs Count: 13	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Brown-headed Cowbird ( <i>Molothrus ater</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Chipping Sparrow ( <i>Spizella passerina</i> )	Obs Count: 6	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Clark's Nutcracker ( <i>Nucifraga columbiana</i> )	Obs Count: 3	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Cliff Swallow ( <i>Petrochelidon pyrrhonota</i> )	Obs Count: 4	Earliest Obs: 1994	Recent Obs: 2009
☒ Birds - Common Raven ( <i>Corvus corax</i> )	Obs Count: 5	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Dark-eyed Junco ( <i>Junco hyemalis</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Dusky Flycatcher ( <i>Empidonax oberholseri</i> )	Obs Count: 4	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Ferruginous Hawk ( <i>Buteo regalis</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Golden Eagle ( <i>Aquila chrysaetos</i> )	Obs Count: 1	Earliest Obs: 1994	Recent Obs: 1994
☒ Birds - Great Blue Heron ( <i>Ardea herodias</i> )	Obs Count: 1	Earliest Obs: 2011	Recent Obs: 2011
☒ Birds - Green-tailed Towhee ( <i>Pipilo chlorurus</i> )	Obs Count: 2	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Hairy Woodpecker ( <i>Picoides villosus</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Killdeer ( <i>Charadrius vociferus</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Lazuli Bunting ( <i>Passerina amoena</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Mallard ( <i>Anas platyrhynchos</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Mountain Bluebird ( <i>Sialia currucoides</i> )	Obs Count: 6	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Mountain Chickadee ( <i>Poecile gambeli</i> )	Obs Count: 4	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Mourning Dove ( <i>Zenaida macroura</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Northern Flicker ( <i>Colaptes auratus</i> )	Obs Count: 2	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Pine Siskin ( <i>Spinus pinus</i> )	Obs Count: 6	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Red-breasted Nuthatch ( <i>Sitta canadensis</i> )	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Red-tailed Hawk ( <i>Buteo jamaicensis</i> )	Obs Count: 2	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Redhead ( <i>Aythya americana</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Ring-billed Gull ( <i>Larus delawarensis</i> )	Obs Count: 2	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Rock Wren ( <i>Salpinctes obsoletus</i> )	Obs Count: 4	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Ruffed Grouse ( <i>Bonasa umbellus</i> )	Obs Count: 1	Earliest Obs: 1972	Recent Obs: 1972
☒ Birds - Sage Thrasher ( <i>Oreoscoptes montanus</i> )	Obs Count: 5	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Spotted Sandpiper ( <i>Actitis macularius</i> )	Obs Count: 2	Earliest Obs: 2006	Recent Obs: 2009
☒ Birds - Tree Swallow ( <i>Tachycineta bicolor</i> )	Obs Count: 2	Earliest Obs: 1992	Recent Obs: 2009
☒ Birds - Vesper Sparrow ( <i>Poocetes gramineus</i> )	Obs Count: 19	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Violet-green Swallow ( <i>Tachycineta thalassina</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Warbling Vireo ( <i>Vireo gilvus</i> )	Obs Count: 2	Earliest Obs: 2010	Recent Obs: 2010
☒ Birds - Western Grebe ( <i>Aechmophorus occidentalis</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Western Meadowlark ( <i>Sturnella neglecta</i> )	Obs Count: 12	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Western Tanager ( <i>Piranga ludoviciana</i> )	Obs Count: 4	Earliest Obs: 2009	Recent Obs: 2010
☒ Birds - Wilson's Phalarope ( <i>Phalaropus tricolor</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Yellow-headed Blackbird ( <i>Xanthocephalus xanthocephalus</i> )	Obs Count: 1	Earliest Obs: 2009	Recent Obs: 2009
☒ Birds - Yellow-rumped Warbler ( <i>Setophaga coronata</i> )	Obs Count: 3	Earliest Obs: 2010	Recent Obs: 2010
☒ Reptiles - Terrestrial Gartersnake ( <i>Thamnophis elegans</i> )	Obs Count: 2	Earliest Obs: 2010	Recent Obs: 2010
☒ Amphibians - Columbia Spotted Frog ( <i>Rana luteiventris</i> )	Obs Count: 3	Earliest Obs: 1891	Recent Obs: 2010
☒ Amphibians - Western Toad ( <i>Anaxyrus boreas</i> )	Obs Count: 1	Earliest Obs: 1927	Recent Obs: 1927

## Citation for this report:

Montana Generalized Observations Report  
 Generalized Observations for ((All Mammals) and (All Birds) and (All Reptiles) and (All Amphibians))  
 Within Lat/Long: (45.98104,-112.63019) to (46.06977,-112.79251)  
 Natural Heritage Map Viewer. Montana Natural Heritage Program.  
 Retrieved on October 30, 2015, from <http://mtnhp.org/MapViewer/GenOBSReport.aspx>

## **APPENDIX C: MNHP SPECIES OF CONCERN RESULTS**



P.O. Box 201800 • 1515 East Sixth Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • tel 406.444.5354 • <http://mtnhp.org>

October 13, 2015

Daniel Norderud  
Robert Peccia & Associates, Inc.  
P.O. Box 5653  
Helena, Montana 59604

Dear Daniel,

I am writing in response to your recent request regarding Montana Species of Concern in the vicinity of the I-90 EB Scale Site - Ramsay Project, in Section 32, T04N, R09W; and Sections 4, 5, 8 and 9, T03N, R09W, in Silver Bow County. I checked our databases for information in this general area and have enclosed 7 species occurrence reports for 4 animal species of concern, a map depicting species of concern and wetland locations, and explanatory material including a list of agency contacts. Note that the maps are in Adobe GeoPDF format. With the appropriate Adobe Reader, it provides a convenient way to query and understand the information presented on the map.

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

- (1) These materials are the result of a search of our database for species of concern that occur in an area defined by the requested township, range and section(s) with an additional one-mile buffer surrounding the requested area. This is done to provide a more inclusive set of records and 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. Reports are provided for the species of concern that are located in your requested area with a one-mile buffer. Species of concern outside of this buffered area may be depicted on the map due to the map extent, but are not selected for the SOC report.
- (2) On the map, polygons represent one or more source features as well as the locational uncertainty associated with the source features. A source feature is a point, line, or polygon that is the basic mapping unit of a Species Occurrence (SO) representation. The recorded location of the occurrence may vary from its true location due to many factors, including the level of expertise of the data collector, differences in survey techniques and equipment used, and the amount and type of information obtained. Therefore, this inaccuracy is characterized as locational uncertainty, and is now incorporated in the representation of an SO. If you have a question concerning a specific SO, please do not hesitate to contact us.

- (3) This report may include sensitive data, and is not intended for general distribution, publication, or for use outside of your organization. In particular, public release of specific location information may jeopardize the welfare of threatened, endangered, or sensitive species or biological communities.
- (4) The accompanying map(s) display land management status, which may differ from ownership. Features shown on this map do not imply public access to any lands.
- (5) Additional biological data for the search area(s) may be available from other sources. We suggest you contact the U.S. Fish and Wildlife Service for any additional information on threatened and endangered species (406-449-5225). For additional fisheries information in your area of interest, you may wish to contact Montana Fish, Wildlife, and Park's Montana Fisheries Information System (phone: 406-444-3373, or web site: <http://fwp.mt.gov/fishing/mFish/>).
- (6) Additional information on species habitat, ecology and management is available on our web site in the Plant, Animal, and ecological Systems Field Guides, which we encourage you to consult for valuable information. You can access these guides at <http://mtnhp.org>. General information on any species can be found by accessing the link to NatureServe Explorer.**

The results of a data search by the Montana Natural Heritage Program reflect the current status of our data collection efforts. These results are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys, which may be required for environmental assessments. The information is intended for project screening only with respect to species of concern, and not as a determination of environmental impacts, which should be gained in consultation with appropriate agencies and authorities.

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: <http://www.surveymonkey.com/s/RYN8Y8L>.

I hope the enclosed information is helpful to you. Please feel free to contact me at (406) 444-3290 or via my e-mail address, below, should you have any questions or require additional information.

Sincerely,



Martin P. Miller  
Montana Natural Heritage Program  
[martinm@mt.gov](mailto:martinm@mt.gov)

# Montana Species of Concern I-90 EB Scale Site - Ramsay

SPECIES OCCURRENCE: A polygon feature representing only what is known from direct observation with a defined level of certainty regarding the spatial location of the feature.

- Lichens
- Bryophytes
- Vascular Plants
- Invertebrates
- Amphibians
- Fish
- Reptiles
- Birds
- Mammals

### Sites

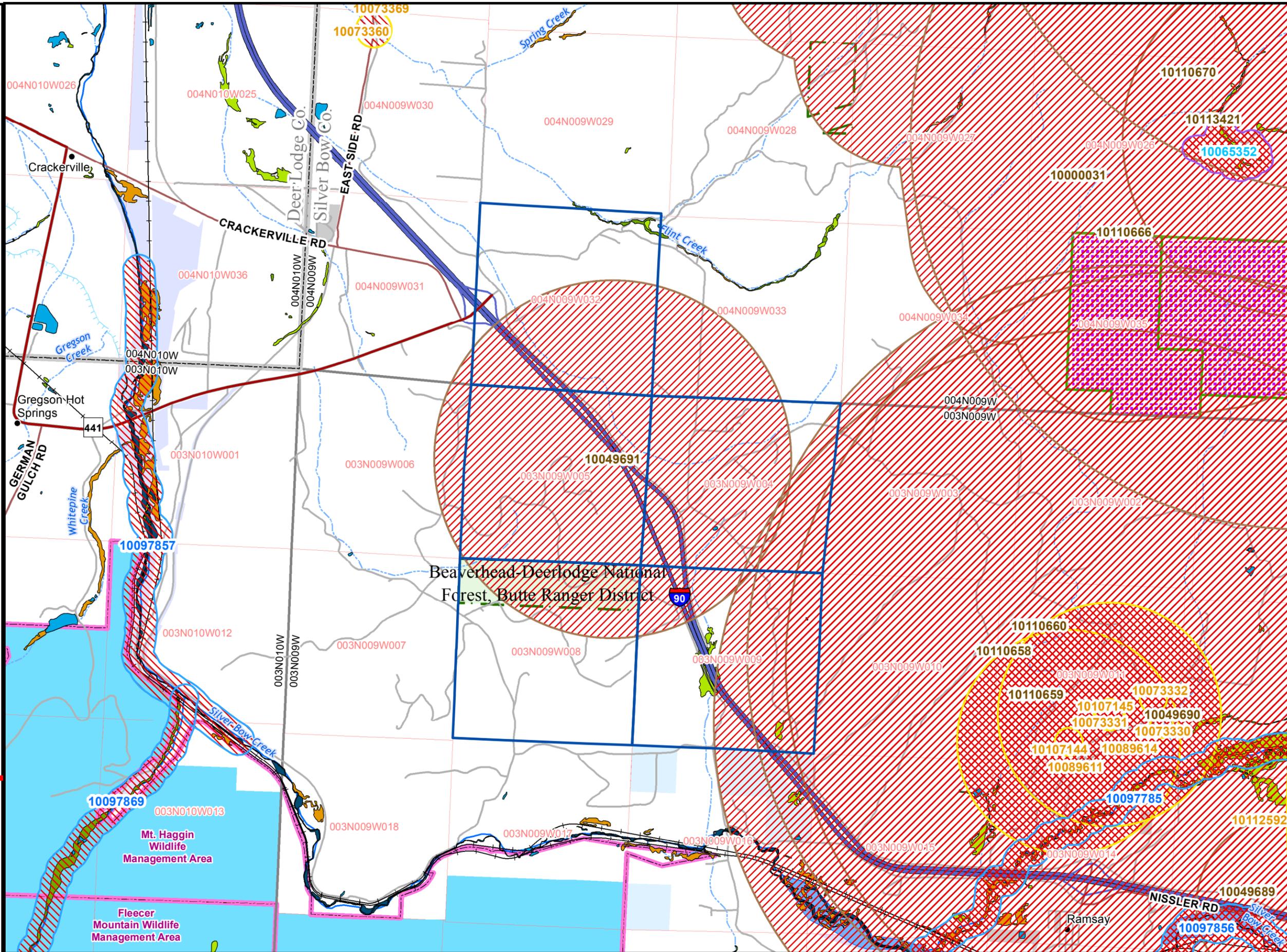
- Sites

### Wetland Types

- Lake
- River
- Freshwater Pond
- Freshwater Emergent Wetland
- Freshwater Scrub-Shrub Wetland
- Freshwater Forested Wetland
- Riparian Emergent
- Riparian Scrub-Shrub
- Riparian Forested

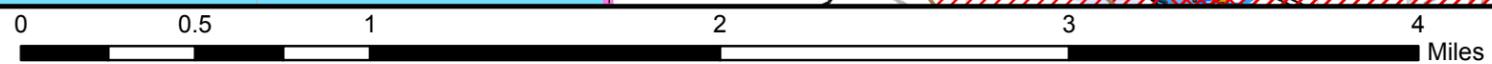


Not all legend items may occur on the map.  
Features shown on this map do not imply public access to any lands.  
Land ownership information shown on this map is not suitable for legal purposes.



Montana Natural Heritage Program, Montana State Library  
1515 East Sixth Ave., Helena, MT 59620-1800

406 444-3290 <http://mtnhp.org> [mtnhp@mt.gov](mailto:mtnhp@mt.gov)



Map Document: K:\REQUESTS\Requests\16MDT\16mdt0010\16mdt0010.mxd (10/13/2015)



# Species of Concern Data Report

Visit <http://mtnhp.org> for additional information.

Report Date:  
Tuesday, October 13, 2015

## Nucifraga columbiana

[View Species in MT Field Guide](#)

**Common Name:** Clark's Nutcracker

**General Habitat:** Conifer forest

**Description:** Birds

### Mapping Delineation:

Observations with evidence of breeding activity buffered by a minimum distance of 1,000 meters in order to be conservative about encompassing the spring/summer breeding territories of family groups and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters.

### Species Status

[Click Status for Explanations](#)

#### Natural Heritage Ranks:

**State:** S3  
**Global:** G5

#### Federal Agency Status:

[U.S. Fish & Wildlife Service:](#)

[U.S. Forest Service:](#)

[U.S. Bureau of Land Management:](#)

**FWP CFWCS Tier:** 3

**MT PIF Code:** 3

### Species Occurrences

Species Occurrence Map Label:	10089611		
First Observation Date:	07/11/2009	SO Number:	
Last Observation Date:	07/11/2009	Acreage:	776

## Sorex preblei

[View Species in MT Field Guide](#)

**Common Name:** Preble's Shrew

**General Habitat:** Sagebrush grassland

**Description:** Mammals

### Mapping Delineation:

Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 100 meters in order to encompass the maximum home range size for small shrews and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters.

### Species Status

[Click Status for Explanations](#)

#### Natural Heritage Ranks:

**State:** S3  
**Global:** G4

#### Federal Agency Status:

[U.S. Fish & Wildlife Service:](#)

[U.S. Forest Service:](#)

[U.S. Bureau of Land Management:](#)

**FWP CFWCS Tier:** 2

**MT PIF Code:**

### Species Occurrences

Species Occurrence Map Label:	10049691		
First Observation Date:	04/29/1961	SO Number:	
Last Observation Date:	06/12/1962	Acreage:	1,987



# Species of Concern Data Report

Visit <http://mtnhp.org> for additional information.

Report Date:  
**Tuesday, October 13, 2015**

**Lasiurus cinereus** [View Species in MT Field Guide](#)

**Common Name:** Hoary Bat **General Habitat:** Riparian and forest

**Description:** Mammals

**Mapping Delineation:**

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

**Species Status**

[Click Status for Explanations](#)

**Natural Heritage Ranks:**

**State:** S3  
**Global:** G5

**Federal Agency Status:**

[U.S. Fish & Wildlife Service:](#)

[U.S. Forest Service:](#)

[U.S. Bureau of Land Management:](#)

**FWP CFWCS Tier:** 2

**MT PIF Code:**

**Species Occurrences**

<b>Species Occurrence Map Label:</b> 10110666			
<b>First Observation Date:</b>	06/23/2010	<b>SO Number:</b>	
<b>Last Observation Date:</b>	06/24/2010	<b>Acreage:</b>	9,510

<b>Species Occurrence Map Label:</b> 10110658			
<b>First Observation Date:</b>	08/13/2009	<b>SO Number:</b>	
<b>Last Observation Date:</b>	08/13/2009	<b>Acreage:</b>	9,510

<b>Species Occurrence Map Label:</b> 10110659			
<b>First Observation Date:</b>	08/13/2009	<b>SO Number:</b>	
<b>Last Observation Date:</b>	08/13/2009	<b>Acreage:</b>	9,510

<b>Species Occurrence Map Label:</b> 10110660			
<b>First Observation Date:</b>	08/13/2009	<b>SO Number:</b>	
<b>Last Observation Date:</b>	08/13/2009	<b>Acreage:</b>	9,510

**Gulo gulo** [View Species in MT Field Guide](#)

**Common Name:** Wolverine **General Habitat:** Boreal Forest and Alpine Habitats

**Description:** Mammals

**Mapping Delineation:**



Natural Resource Information System  
Montana State Library  
PO Box 201800  
Helena, MT 59620-1800  
(406)444-3009 mtnhp@mt.gov

# Species of Concern Data Report

Visit <http://mtnhp.org> for additional information.

Report Date:  
Tuesday, October 13, 2015

Confirmed area of occupancy supported by recent (post-1980), nearby (within 10 kilometers) observations of adults or juveniles. Tracking regions were defined by areas of primary habitat and adjacent female dispersal habitat as modeled by Inman et al. (2013). These regions were buffered by 1 kilometer in order to link smaller areas and account for potential inaccuracies in independent variables used in the model.

## Species Status

[Click Status for Explanations](#)

### Natural Heritage Ranks:

State: S3  
Global: G4

FWP CFWCS Tier: 2

MT PIF Code:

### Federal Agency Status:

U.S. Fish & Wildlife Service:

U.S. Forest Service: SENSITIVE

U.S. Bureau of Land Management: SENSITIVE

## Species Occurrences

Species Occurrence Map Label:	10000031		
First Observation Date:	03/01/1958	SO Number:	
Last Observation Date:	03/15/2013	Acreage:	1,326,340



# Montana Natural Heritage Program

1515 East Sixth Ave., Helena, Montana 59620-1800

(406) 444-5354

<http://mtnhp.org>

## Explanation of Species of Concern Reports

Since 1985, the Montana Natural Heritage Program (MTNHP) has been compiling and maintaining an inventory of elements of biological diversity in Montana. This inventory includes plant species, animal species, plant communities, and other biological features that are rare, endemic, disjunct, threatened, or endangered throughout their range in Montana, vulnerable to extirpation from Montana, or in need of further research.

**Species Occurrences:** (formerly called 'Element Occurrences') A "**Species Occurrence**" (**SO**) is an area depicting only what is known from direct observation with a defined level of certainty regarding the spatial location of the feature. If an observation can be associated with a map feature that can be tracked (e.g., a wetland) 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 Species Occurrence. A "Species Occurrence" generally falls into one of the following three categories:

**Plants:** 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 are within approximately one air mile of one another).

**Animals:** The location of a specimen collection or of a verified sighting; known or assumed to represent a breeding population. Additional collections or sightings are often appended to the original record.

**Other:** Significant biological features not included in the above categories, such as bird rookeries, peatlands, or state champion trees.

**Ecological Information:** Areas for which we have ecological information are represented on the map as either shaded polygons (where small and/or well defined) or simply as map labels (where they are large generally-defined landscapes). Descriptive information about these areas is contained in the associated report. Such information can be useful in assessing biological values and interpreting Species of Concern data.

The quantity and quality of data contained in MTNHP reports is dependent on the research and observations of the many individuals and organizations that contribute information to the program. Please keep in mind that the absence of information for an area does not mean the absence of significant biological features, since no surveys may have been conducted there. Reports produced by the Montana Natural Heritage Program summarize information documented in our databases at the time of a request. These reports are not intended as a final statement on the species or areas being considered, nor are they a substitute for on-site surveys, which may be required for environmental assessments.

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As a user of MTNHP, your contributions of data are essential to maintaining the accuracy of our databases. New or updated location information for all species of concern is always welcome.

We encourage you to visit our website at <http://mtnhp.org>. On-line tools include a species observation viewer: the Natural Heritage TRACKER and *The Montana Field Guide* which contains photos, illustrations, and supporting information on Montana's animals and plant species of concern. Additional data are available on most species and ecological areas identified in our reports.

**If you have questions or need further assistance, please contact us either by phone at (406/444-5354), e-mail ([mtnhp@mt.gov](mailto:mtnhp@mt.gov)) or**

## Data Descriptions

The section below lists the names and definitions for descriptions of the data fields used in the reports. Certain codes and abbreviations are used in Species Occurrence reports. Although many of these are very straightforward, the following explanations should answer most questions.

**Map Label:** The label for the species occurrence as it appears on the map.

**Element Subnational ID:** The unique code used by the state or province to identify a specific element (species).

**SO Number:** Number that identifies the particular occurrence of the element (species).

**Scientific Name:** Latin (scientific) name.

**Common Name:** Commonly recognized name.

**Species of Concern/Potential Concern:** This value indicates whether the species is a “Species of Concern” (Y) or of “Potential Concern” (W).

**Last Observation Date:** The date the Species Occurrence was last observed extant at the site (not necessarily the date the site was last visited).

**First Observation Date:** The date the Species Occurrence was first reported at the site.

**EO Rank:** indicates the relative value of the Species Occurrence (SO) with respect to other occurrences of the Species, based on an assessment of estimated viability (species).

### Values:

- A - Excellent estimated viability/ecological integrity
- A? - Possibly excellent estimated viability/ecological integrity
- AB - Excellent or good estimated viability/ecological integrity
- AC - Excellent, good, or fair estimated viability/ecological integrity
- B - Good estimated viability/ecological integrity
- B? - Possibly good estimated viability/ecological integrity
- BC - Good or fair estimated viability/ecological integrity
- BD - Good, fair, or poor estimated viability/ecological integrity
- C - Fair estimated viability/ecological integrity
- C? - Possibly fair estimated viability/ecological integrity
- CD - Fair or poor estimated viability/ecological integrity
- D - Poor estimated viability/ecological integrity
- D? - Possibly poor estimated viability/ecological integrity
- E - Verified extant (viability/ecological integrity not assessed)
- F - Failed to find
- F? - Possibly failed to find
- H - Historical
- H? - Possibly historical
- X - Extirpated
- X? - Possibly extirpated
- U - Unrankable
- NR - Not ranked

**SO Data:** Data collected on the biology of this Species Occurrence. Specific information may include number of individuals, vigor, habitat, soils, associated species, and other characteristics.

# Species Status Codes

Provided below are definitions for species conservation status ranks, categories and other codes designated by MTNHP, Federal and State Agencies and non-governmental organizations.

- [Montana Species of Concern](#)
- [Montana Potential Species of Concern](#)
- [Status Under Review](#)
- [Exotic Species](#)
- [Montana Species Ranking Codes](#)
- [U.S. Fish and Wildlife Service](#)
- [Forest Service](#)
- [Bureau of Land Management](#)
- [MFWP Conservation Need](#)
- [Partners In Flight \(PIF\)](#)
- [MNPS Threat Category](#)

## Species of Concern

Species of Concern are native taxa that are at-risk due to declining population trends, threats to their habitats, restricted distribution, and/or other factors. Designation as a Montana Species of Concern or Potential Species of Concern is based on the Montana Status Rank, and is not a statutory or regulatory classification. Rather, these designations provide information that helps resource managers make proactive decisions regarding species conservation and data collection priorities. See the latest [Species of Concern Reports](#) for more detailed explanations and assessment criteria.

## Potential Species of Concern

Potential Species of Concern are native taxa for which current, often limited, information suggests potential vulnerability. Also included are animal species which additional data are needed before an accurate status assessment can be made.

## Status Under Review

Species designated "Status Under Review" are plant species that require additional information and currently do not have a status rank but may warrant future consideration as Species of Concern. This category also includes plant species whose status rank is questionable due to the availability of new information or the availability of conflicting or ambiguous information or data. Species listed in this category will be reviewed periodically or as new information becomes available.

## Exotic Species

Exotic species are not native to Montana, but have either been reported in Montana or have established populations in Montana outside of their native range.

## Montana Species Ranking Codes

Montana employs a standardized ranking system to denote global (G) and state (S) status (NatureServe 2003). Species are assigned numeric ranks ranging from 1 (critically imperiled) to 5 (demonstrably secure), reflecting the relative degree to which they are "at-risk". Rank definitions are given below. A number of factors are considered in assigning ranks - the number, size and distribution of known "occurrences" or populations, population trends (if known), habitat sensitivity, life history traits and threats.

For example, Clustered lady's slipper (*Cypripedium fasciculatum*) is ranked G4 S2. Globally the species is uncommon but not vulnerable, while in Montana it is at risk because of limited and potentially declining numbers, extent and/or habitat.

### G1 S1

At high risk because of extremely limited and potentially declining numbers, extent and/or habitat, making it highly vulnerable to global extinction or extirpation in the state.

### G2 S2

At risk because of very limited and potentially declining numbers, extent and/or habitat, making it vulnerable to global extinction or extirpation in the state.

### G3 S3

Potentially at risk because of limited and potentially declining numbers, extent and/or habitat, even though it may be abundant in some areas.

### G4 S4

Uncommon but not rare (although it may be rare in parts of its range), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern.

### G5 S5

Common, widespread, and abundant (although it may be rare in parts of its range). Not vulnerable in most of its range.

### GX SX

Presumed Extinct or Extirpated - Species is believed to be extinct throughout its range or extirpated in Montana. Not located despite intensive searches of historical sites and other appropriate habitat, and small likelihood that it will ever be rediscovered.

### GH SH

Possibly Extinct or Extirpated - Species is known only from historical records, but may nevertheless still be extant; additional surveys are needed.

**GNR SNR**

Not yet ranked.

**GU SU**

Unrankable - Species currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

**GNA SNA**

A conservation status rank is not applicable for one of the following reasons:

The taxa is of Hybrid Origin; is Exotic or Introduced; is Accidental or is Not Confidently Present in the state. (see other codes below)

**Other Codes and Modifiers**

**HYB**

Hybrid-Entity not ranked because it represents an interspecific hybrid and not a species.

**T**

**Infraspecific Taxon (trinomial)** - The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

**?**

**Inexact Numeric Rank** - Denotes inexact numeric rank.

**Q**

**Questionable** taxonomy that may reduce conservation priority-Distinctiveness of this entity as a taxon at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority (numerically higher) conservation status rank.

**C**

**Captive or Cultivated Only** - Species at present is extant only in captivity or cultivation, or as a reintroduced population not yet established.

**A**

**Accidental** - Species is accidental or casual in Montana, in other words, infrequent and outside usual range. Includes species (usually birds or butterflies) recorded once or only a few times at a location. A few of these species may have bred on the one or two occasions they were recorded.

**SYN**

**Synonym** - Species reported as occurring in Montana, but the Montana Natural Heritage Program does not recognize the taxon; therefore the species is not assigned a rank.

**B**

**Breeding** - Rank refers to the breeding population of the species in Montana.

**N**

**Nonbreeding** - Rank refers to the non-breeding population of the species in Montana.

**M**

**Migratory** - Species occurs in Montana on during migration.

**U.S. Fish and Wildlife Service**

**LE**

**Listed endangered** - Any species in danger of extinction throughout all or a significant portion of its range (16 U.S.C. 1532(6)).

**PE**

**Proposed endangered** - Any species for which a proposed rule has been published in the Federal Register to list the species as endangered.

**LT**

**Listed threatened** - Any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)).

**PT**

**Proposed threatened** - Any species for which a proposed rule has been published in the Federal Register to list the species as threatened.

**E(S/A) or T(S/A)**

Any species listed endangered or threatened because of similarity of appearance.

**C**

**Candidate** - Those taxa for which sufficient information on biological status and threats exists to propose to list them as threatened or endangered. We encourage their consideration in environmental planning and partnerships; however, none of the substantive or procedural provisions of the Act apply to candidate species.

**PDL**

**Proposed for delisting** - Any species for which a final rule has been published in the Federal Register to delist the species.

**DM**

**Recovered, delisted, and being monitored** - Any previously listed species that is now recovered, has been delisted, and is being monitored.

**NL**

**Not listed** - No designation.

**XE**

**Essential experimental population** - An experimental population whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild.

**XN**

**Nonessential experimental population** - An experimental population of a listed species reintroduced into a specific area that receives more flexible management under the Act.

**CH**

**Critical Habitat** - The specific areas (i) within the geographic area occupied by a species, at the time it is listed, on which are found those physical or biological features (I) essential to conserve the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed upon determination that such areas are essential to conserve the species.

**PS**

**Partial status** - status in only a portion of the species' range. Typically indicated in a "full" species record where an infraspecific taxon or population, that has a record in the database has USESA status, but the entire species does not.

**PS:value**

**Partial status** - status in only a portion of the species' range. The value of that status appears in parentheses because the entity with status is not recognized as a valid taxon by Central Sciences (usually a population defined by geopolitical boundaries or defined administratively, such as experimental populations).

## Forest Service

The status of species on Forest Service lands as defined by the U.S. Forest Service manual (2670.22). These taxa are listed as such by the Regional Forester (Northern Region). The Forest Service lists animal species as:

**Endangered**

Listed as Endangered (LE) by the USFWS.

**Threatened**

Listed as Threatened (LT) by the USFWS.

**Sensitive**

Any species for which the Regional Forester has determined there is a concern for population viability within the state, as evidenced by a significant current or predicted downward trend in populations or habitat.

**Species of Concern**

USFS Species-of-Concern (FSH 1909.12, 43.22b) are species for which the Responsible Official determines management actions may be necessary to prevent listing under the Endangered Species Act (ESA). The Responsible Official, as appropriate, may identify the following plant and animal species, including macro-lichens, as species-of-concern:

1. Species identified as proposed and candidate species under the ESA.
2. Species with ranks of G-1 through G-3 on the NatureServe ranking system.
3. Infraspecific (subspecific) taxa with ranks of T-1 through T-3 on the NatureServe ranking system.
4. Species that have been petitioned for federal listing and for which a positive "90-day finding" has been made (a 90-day finding is a preliminary finding that substantive information was provided indicating that the petition listing may be warranted and a full status review will be conducted).
5. Species that have been recently delisted (these include species delisted within the past five years and other delisted species for which regulatory agency monitoring is still considered necessary).

**Species of Interest**

USFS Species-of-Interest (FSH 1909.12, 43.22c) are species for which the Responsible Official determines that management actions may be necessary or desirable to achieve ecological or other multiple-use objectives. The Responsible Official may review the following sources for potential species-of-interest:

1. Species with ranks of S-1, S-2, N1, or N2 on the NatureServe ranking system.
2. State listed threatened and endangered species that do not meet the criteria as species-of-concern.
3. Species identified as species of conservation concern in State Comprehensive Wildlife Strategies.
4. Bird species on the U.S. Fish and Wildlife Service Birds of Conservation Concern National Priority list (for the U.S. portion of the northern Rockies that occur on National Forest system lands).
5. Additional species that valid existing information indicates are of regional or local conservation concern (this includes all Forest Service Northern Region sensitive species) due to factors that may include:
  - a. Significant threats to populations or habitat.
  - b. Declining trends in populations or habitat.
  - c. Rarity.
  - d. Restricted ranges (for example, narrow endemics, disjunct populations, or species at the edge of their range).
6. Species that are hunted or fished and other species of public interest. Invasive species may also be considered.

## Bureau of Land Management

BLM Sensitive Species are defined by the BLM 6840 Manual as those that normally occur on Bureau administered lands for which BLM has the capability to significantly affect the conservation status of the species through management. The State Director may designate additional categories of special status species as appropriate and applicable to his or her state's needs. The sensitive species designation, for species other than federally listed, proposed, or candidate species, may include such native species as those that:

1. could become endangered in or extirpated from a state, or within a significant portion of its distribution in the foreseeable future,
2. are under status review by FWS and/or NMFS,
3. are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution,

4. are undergoing significant current or predicted downward trends in population or density such that federally listed, proposed, candidate, or State listed status may become necessary,
5. have typically small and widely dispersed populations,
6. are inhabiting ecological refugia, specialized or unique habitats, or
7. are State listed but which may be better conserved through application of BLM sensitive species status. Such species should be managed to the level of protection required by State laws or under the BLM policy for candidate species, whichever would provide better opportunity for its conservation.

## MFWP Conservation Need

In recent years states have received federal funding to develop Comprehensive Fish and Wildlife Conservation Strategies. Montana Fish, Wildlife, and Parks completed [Montana's Comprehensive Fish and Wildlife Conservation Strategy](#) in 2005. Under this conservation strategy individual animal species were assigned levels of conservation need as follows:

### Tier I:

**Tier I:** Greatest conservation need. Montana Fish, Wildlife & Parks has a clear obligation to use its resources to implement conservation actions that provide direct benefit to these species, communities, and focus areas.

### Tier II:

**Tier II:** Moderate conservation need. Montana Fish, Wildlife & Parks could use its resources to implement conservation actions that provide direct benefit to these species, communities, and focus areas.

### Tier III:

**Tier III:** Lower conservation need. Although important to Montana's wildlife diversity, these species, communities, and focus areas are either abundant and widespread or are believed to have adequate conservation already in place.

### Tier IV:

**Tier IV:** Species that are non-native, incidental, or on the periphery of their range and are either expanding or very common in adjacent states.

## Partners In Flight (PIF)

[Partners In Flight \(PIF\)](#) is a partnership of federal and state agencies, industry, non-governmental organizations, and many others, with the goal of conserving North American birds. In 1991, PIF began developing a formal species assessment process that could provide consistent, scientific evaluations of conservation status across all bird species in North America, and identify areas most important to the conservation of each species. This process applies quantitative rule sets to complex biological data on the population size, distribution, population trend, threats, and regional abundance of individual bird species to generate simple numerical scores that rank each species in terms of its biological vulnerability and regional status. The process results in global and regional conservation assessments of each bird species that, among other uses, can be used to objectively assign regional and continental conservation priorities among birds. The species assessment scores and process has recently been updated! Check out the [new scores](#) and make sure to download and read the updated [Handbook on Species Assessment](#), which contains important information on the how scores are derived and used in the assessment process. Note that currently only breeding-season regional scores are available for BCRs. We hope to have non-breeding scores available soon. For those needing access to the previous versions of the PIF Species Assessment Database, including past regional scores for physiographic areas, [click here](#).

## Montana Native Plant Society (MNPS) Threat Category

The MNPS Threat Category process was initiated in 2006 at the Montana Plant Conservation Conference with the formation of a committee represented by federal, state and private botanists, ecologists and biologists. The objectives were to: 1) Evaluate threats impacting Montana's Plant Species of Concern and to classify species according to their level of imperilment/risk as a result of these threats. 2) Develop a ranking system based on the impacts of the identified threats to the species' viability in the state. The result of this process is a 4-tier threat ranking system for Plant Species of Concern in Montana. The threat categories are:

### Category 1:

The viability of the species in the state is Highly Threatened by one or more activities. Associated threats have caused or are likely to cause a major reduction of the state population or its habitat that will require 50 years or more for recovery, 20% or more of the state population has been or will be affected, and the negative impact is occurring or is likely to occur within the next 5 years.

### Category 2:

The viability of the species or a portion of the species habitat in the state is Threatened by one or more activities, though impacts to the species are expected to be less severe than those in Category 1. Associated threats exist but are not as severe, wide-ranging or immediate as for Category 1, though negative impacts are occurring or are likely to occur.

### Category 3:

The viability of the species in the state is Not Threatened or the Threats are Insignificant. Associated threats are either not known to exist, are not likely to occur in the near future or are not known to be having adverse impacts that will severely affect the species' viability in the state.

### Category 4:

Assessment not possible due to insufficient and/or conflicting information on potential threats to the species.

Please visit the MNPS website at <http://www.mtnativeplants.org> for additional information on MNPS Threat Categories or for MNPS contact information.

## Suggested Contacts for State and Federal 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 and federal 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 <http://ecos.fws.gov/ipac/> regarding U.S. Endangered Species Act listed Threatened, Endangered, or Candidate species. For your convenience, we have compiled a list of relevant agency contacts and links below:

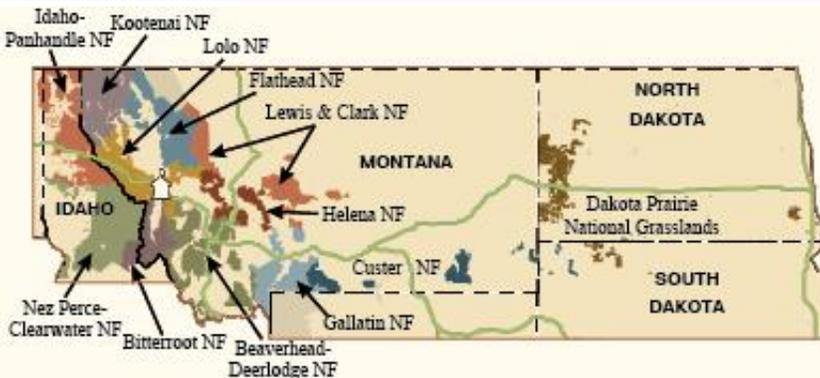
Montana Fish, Wildlife & Parks																							
Regional Contacts 	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;"><a href="#">Region 1</a></td><td style="padding: 2px;">(Kalispell)</td><td style="padding: 2px;">(406) 752-5501</td></tr> <tr><td style="padding: 2px;"><a href="#">Region 2</a></td><td style="padding: 2px;">(Missoula)</td><td style="padding: 2px;">(406) 542-5500</td></tr> <tr><td style="padding: 2px;"><a href="#">Region 3</a></td><td style="padding: 2px;">(Bozeman)</td><td style="padding: 2px;">(406) 994-4042</td></tr> <tr><td style="padding: 2px;"><a href="#">Region 4</a></td><td style="padding: 2px;">(Great Falls)</td><td style="padding: 2px;">(406) 454-5840</td></tr> <tr><td style="padding: 2px;"><a href="#">Region 5</a></td><td style="padding: 2px;">(Billings)</td><td style="padding: 2px;">(406) 247-2940</td></tr> <tr><td style="padding: 2px;"><a href="#">Region 6</a></td><td style="padding: 2px;">(Glasgow)</td><td style="padding: 2px;">(406) 228-3700</td></tr> <tr><td style="padding: 2px;"><a href="#">Region 7</a></td><td style="padding: 2px;">(Miles City)</td><td style="padding: 2px;">(406) 234-0900</td></tr> </table>	<a href="#">Region 1</a>	(Kalispell)	(406) 752-5501	<a href="#">Region 2</a>	(Missoula)	(406) 542-5500	<a href="#">Region 3</a>	(Bozeman)	(406) 994-4042	<a href="#">Region 4</a>	(Great Falls)	(406) 454-5840	<a href="#">Region 5</a>	(Billings)	(406) 247-2940	<a href="#">Region 6</a>	(Glasgow)	(406) 228-3700	<a href="#">Region 7</a>	(Miles City)	(406) 234-0900	<b>Fish and Wildlife Recommendations for Subdivision Development:</b> Renee Lemon <a href="mailto:RLemon@mt.gov">RLemon@mt.gov</a> (406) 444-3738 and see:  <a href="http://fwp.mt.gov/fishAndWildlife/livingWithWildlife/buildingWithWildlife/subdivisionRecommendations/">http://fwp.mt.gov/fishAndWildlife/livingWithWildlife/buildingWithWildlife/subdivisionRecommendations/</a>
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<a href="#">Region 7</a>	(Miles City)	(406) 234-0900																					
<b>American Bison, Black-footed Ferret, Black-tailed Prairie Dog, Bald Eagle, Golden Eagle, Common Loon, Least Tern, Piping Plover, Whooping Crane:</b> Lauri Hanauska-Brown <a href="mailto:LHanauska-Brown@mt.gov">LHanauska-Brown@mt.gov</a> (406) 444-5209																							
<b>Grizzly Bear, Greater Sage Grouse, Trumpeter Swan, Big Game, Upland Game Birds, or Furbearers:</b> John Vore <a href="mailto:jvore@mt.gov">jvore@mt.gov</a> (406) 444-3940																							
<b>Managed Terrestrial Game and Nongame Animal Data:</b> Adam Messer <a href="mailto:amesser@mt.gov">amesser@mt.gov</a> (406) 444-0095																							
<b>Fish Species:</b> Zachary Shattuck <a href="mailto:zshattuck@mt.gov">zshattuck@mt.gov</a> (406) 444-1231 or Lee Nelson <a href="mailto:leenelson@mt.gov">leenelson@mt.gov</a> (406) 444-2447																							
<b>Fisheries Data:</b> Jane Horton <a href="mailto:jhorton@mt.gov">jhorton@mt.gov</a> (406) 444-3759																							
<b>Wildlife and Fisheries Scientific Collector's Permits:</b> <a href="http://fwp.mt.gov/doingBusiness/licenses/scientificWildlife/default.html">http://fwp.mt.gov/doingBusiness/licenses/scientificWildlife/default.html</a> Merissa Hayes for Wildlife <a href="mailto:merhayes@mt.gov">merhayes@mt.gov</a> (406) 444-7320 or Beth Giddings for Fisheries <a href="mailto:begiddings@mt.gov">begiddings@mt.gov</a> (406) 444-7319																							

Montana Department of Environmental Quality
<b>Permitting and Compliance Division:</b> <a href="http://svc.mt.gov/deq/staffdirectory#pca">http://svc.mt.gov/deq/staffdirectory#pca</a> (406) 444-4323
<b>Wetlands:</b> Lynda Saul <a href="mailto:lsaul@mt.gov">lsaul@mt.gov</a> (406) 444-6836

U.S. Fish and Wildlife Service
<b>Information Planning and Conservation (IPAC) website:</b> <a href="http://ecos.fws.gov/ipac/">http://ecos.fws.gov/ipac/</a>
<b>Montana Ecological Services Field Office:</b> <a href="http://www.fws.gov/montanafieldoffice/">http://www.fws.gov/montanafieldoffice/</a> (406) 449-5225

Bureau of Land Management

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

United States Forest Service

<b>USFS Regional Office – Missoula, Montana Contacts</b> Wildlife Program Leader: Tammy Fletcher <a href="mailto:tammyfletcher@fs.fed.us">tammyfletcher@fs.fed.us</a> (406) 329-3588 Wildlife Ecologist: Cara Staab <a href="mailto:cstaab@fs.fed.us">cstaab@fs.fed.us</a> (406) 329-3677 Fish Program Leader: Scott Spaulding <a href="mailto:scottspaulding@fs.fed.us">scottspaulding@fs.fed.us</a> (406) 329-3287 Fish Ecologist: Cameron Thomas <a href="mailto:cathomas@fs.fed.us">cathomas@fs.fed.us</a> (406) 329-3087 TES Program: Kristi Swisher <a href="mailto:kswisher@fs.fed.us">kswisher@fs.fed.us</a> (406) 329-3558 Interagency Grizzly Bear Coordinator: Scott Jackson <a href="mailto:sjackson03@fs.fed.us">sjackson03@fs.fed.us</a> (406) 329-3664 Regional Botanist: Steve Shelly <a href="mailto:sshelly@fs.fed.us">sshelly@fs.fed.us</a> (406) 329-3041

# A GUIDE TO WETLAND AND DEEPWATER HABITATS CLASSIFICATION USED IN THE NATIONAL WETLAND INVENTORY (NWI) MAPPING IN MONTANA



## **Purpose:**

The Montana Wetland and Riparian Mapping Center uses the Cowardin classification system (Cowardin et al. 1979) adopted by the National Wetland Inventory (NWI) for wetlands (FGDC Wetlands Subcommittee, 2009). The riparian system follows the U.S. Fish and Wildlife Service (USFWS) standard (U.S. Fish and Wildlife Services, 2009). NWI is the standard classification system for wetland mapping across the United States. For ease of display and interpretation the NWI attributes have been grouped into major wetland and riparian types.

## **Wetlands**

In Montana, there are three NWI wetland systems: Palustrine, Lacustrine, and Riverine.

### **PALUSTRINE:**

- In Montana, this system includes all wetlands dominated by trees, shrubs, and emergent, herbaceous vegetation.
- Wetlands lacking vegetation are included if they are less than 8 hectares (20 acres) in size and are less than 2 meters (6.6 feet) deep in the deepest portion of the wetland.

#### ***Freshwater pond:***

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

#### ***Freshwater Emergent Wetland:***

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

#### ***Freshwater Shrub Wetland:***

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

#### ***Freshwater Forested Wetland:***

- Wetlands dominated by woody vegetation greater than 6 meters (20 feet) tall.

**LACUSTRINE (Lakes):**

- This system includes any large body of water that is greater than 8 hectares (20 acres) in size OR is more than 2 meters (6.6 feet) deep.
- This system is usually found in a topographic depression. It may also be formed by damming of a river channel.

**RIVERINE (Rivers and streams and shore):**

- This system includes all wetlands and deepwater habitats that are within natural and artificial channels.
- These systems contain either continuous (perennial) or intermittently flowing water.

**RIPARIAN:**

The Wetland and Riparian Mapping Center uses the riparian classification system developed by the U.S. Fish and Wildlife Service to map riparian areas in Montana. The riparian classification types listed below are followed by the coding convention used for mapping purposes.

- Plant communities (trees, shrubs and/or herbaceous plants) contiguous to rivers, streams, lakes, or drainage ways.
- Riparian areas are influenced by both surface and below surface hydrology.
- The plant species present in riparian areas are distinctly different from plant species found in adjacent areas.
- Plants in riparian areas demonstrate more vigorous or robust growth forms than in adjacent areas.

**Riparian Classes:*****Scrub-Shrub (SS):***

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

***Forested (FO):***

- This riparian class has woody vegetation that is greater than 6 meters (20 feet) tall.

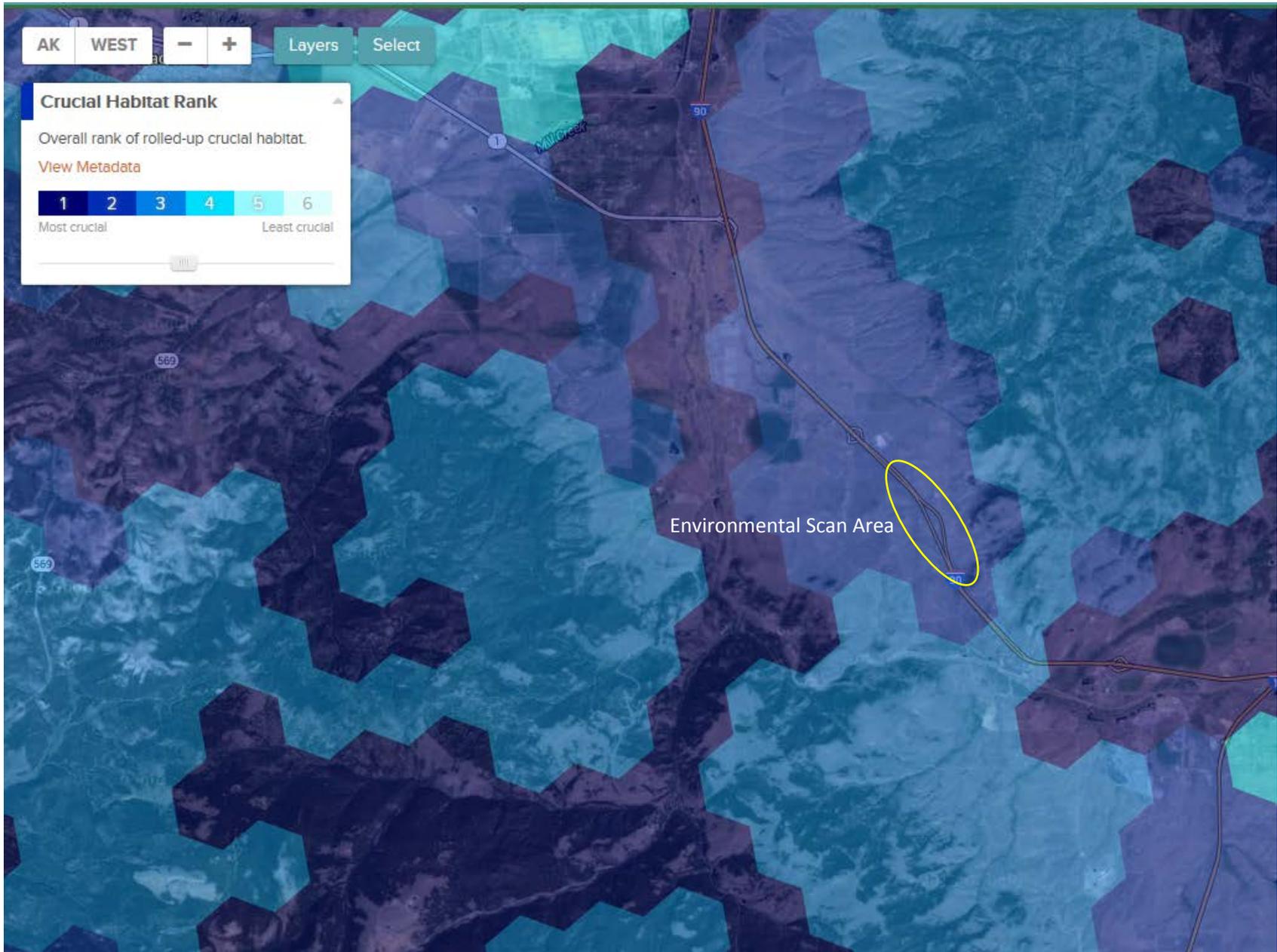
***Emergent (EM):***

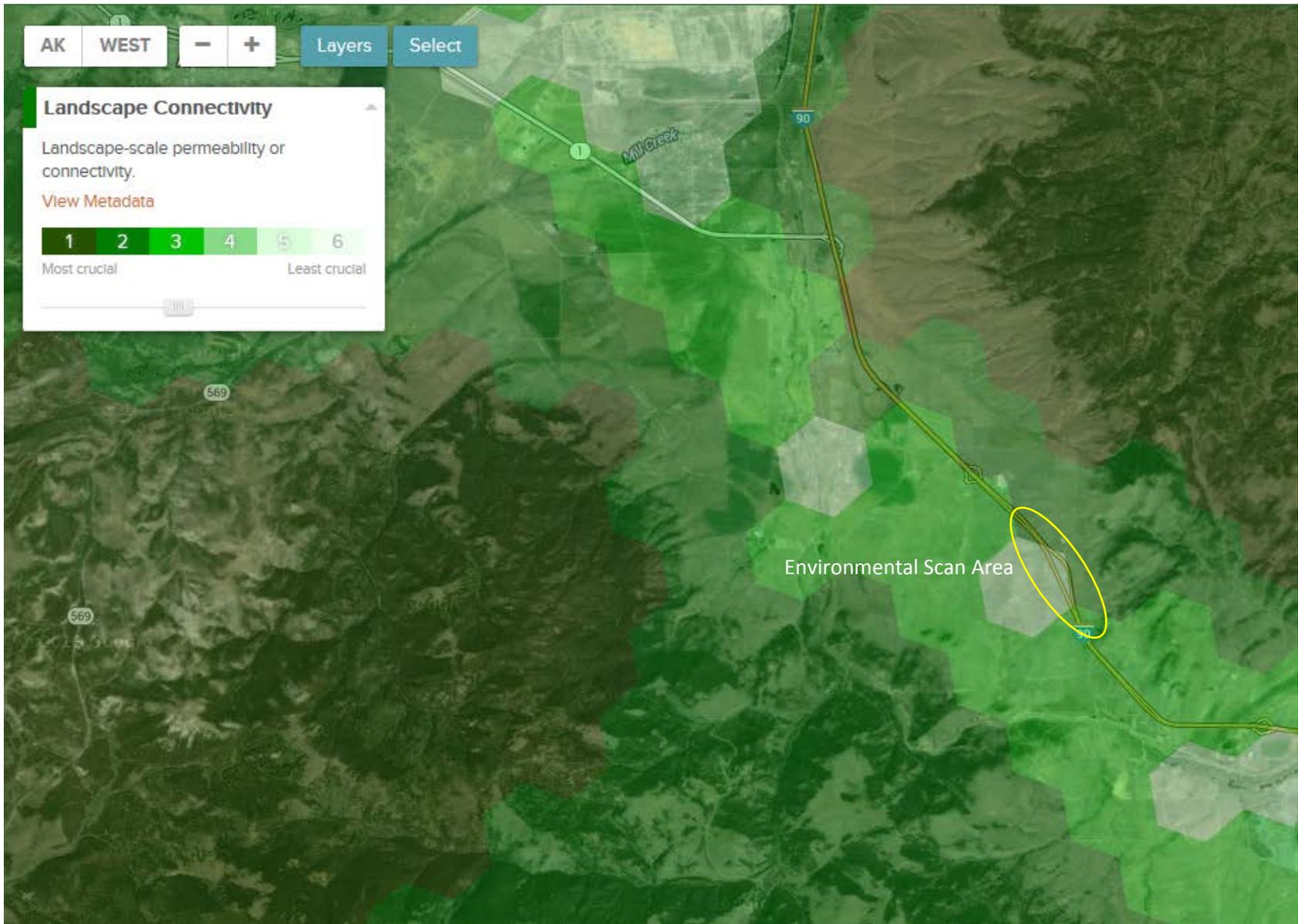
- Riparian areas that have erect, rooted herbaceous vegetation during most of the growing season.

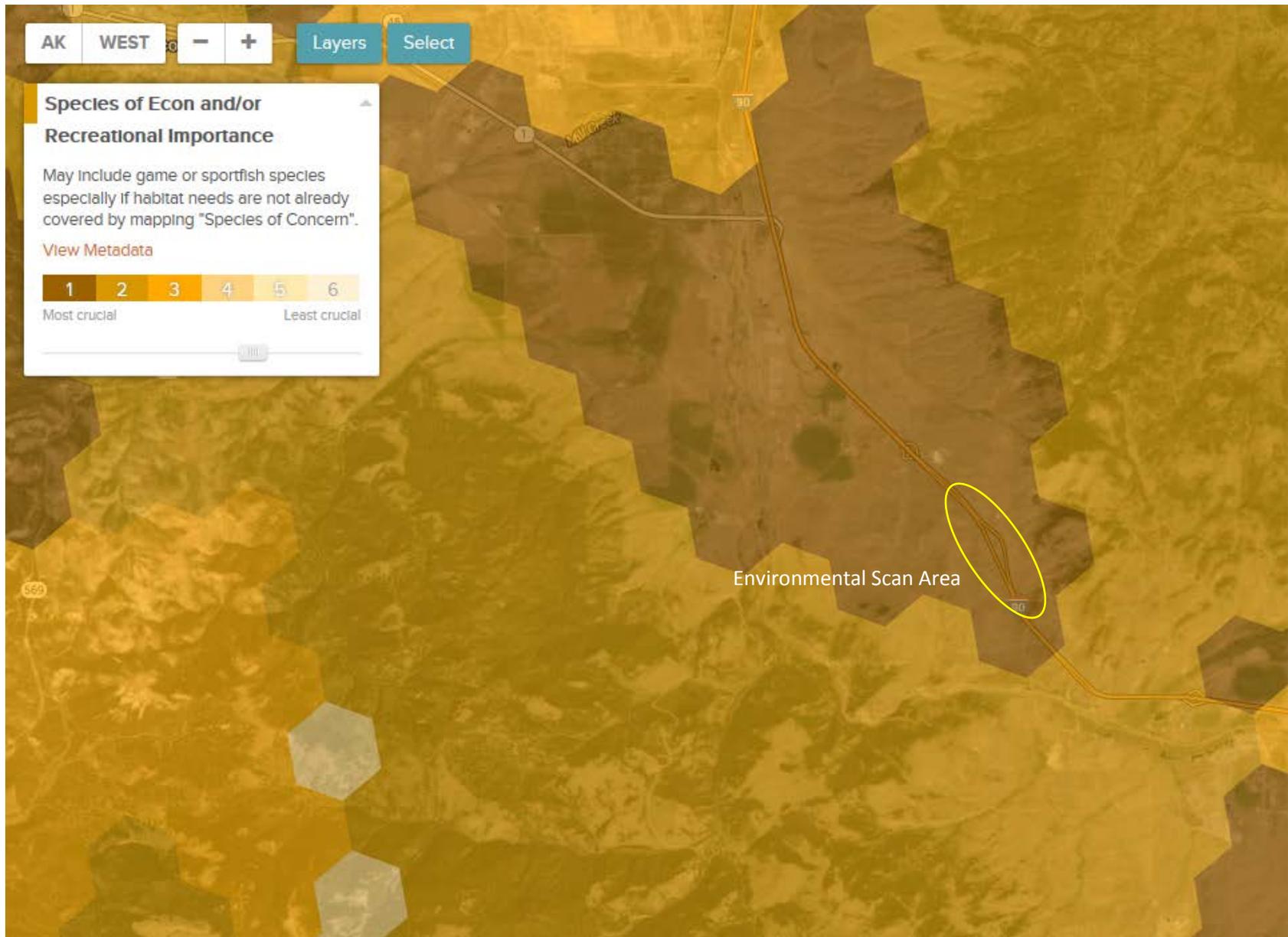
## References

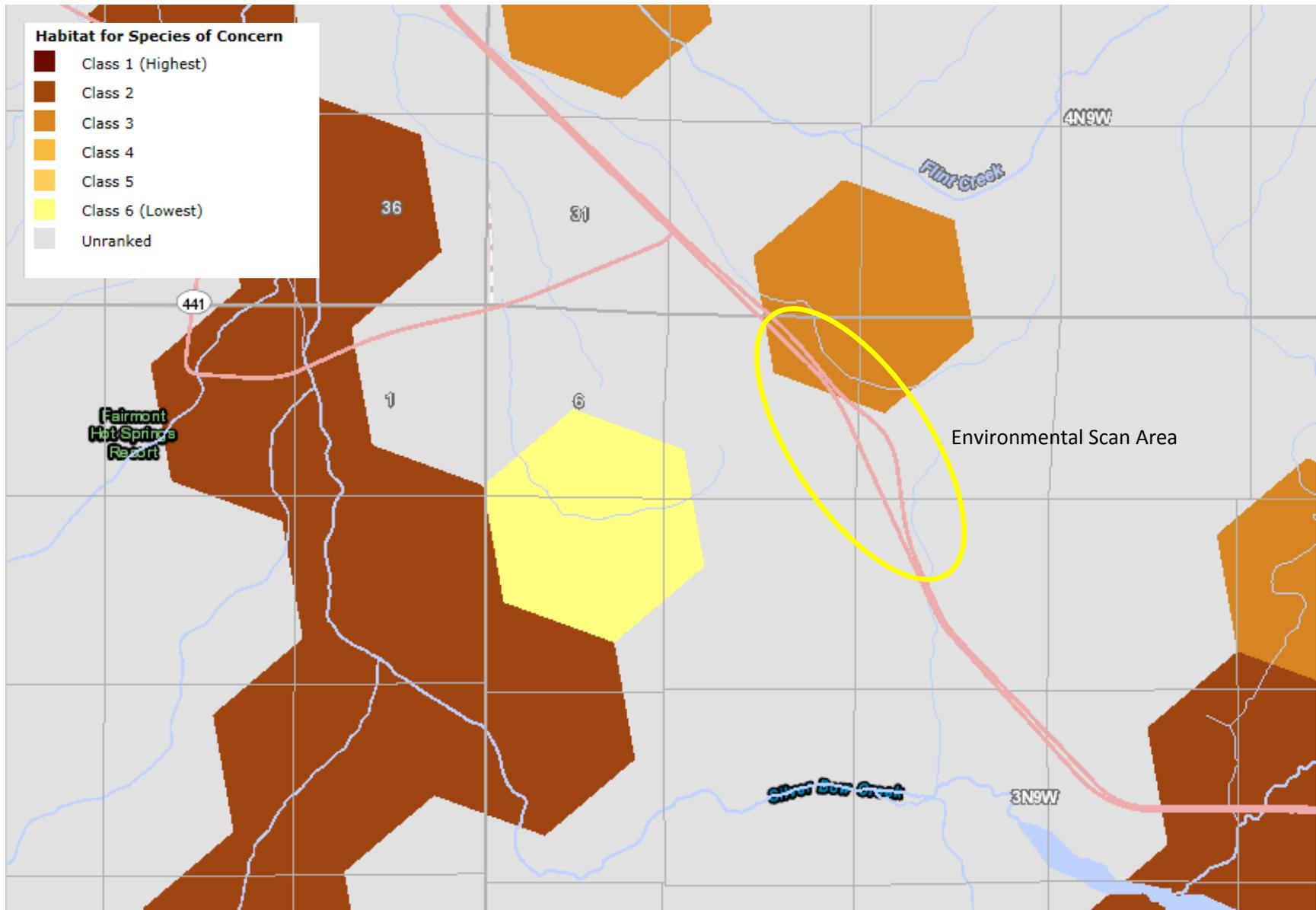
- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C. FWS/OBS-79/31.
- FGDC Wetlands Subcommittee. 2009. Wetlands Mapping Standard. U.S. Geological Survey, Reston, Virginia.
- 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.

## **APPENDIX D: CRUCIAL AREAS PLANNING INFORMATION**









## **APPENDIX E: INVADERS DATABASE SEARCH RESULTS AND MONTANA NOXIOUS WEED LIST**



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## Query By Area

### 5 Northwestern

#### States:

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• [Query From](#)

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**You queried the area of Silver Bow County in Montana from 1875 to 2015 for **Noxious** Species.**

## Results of Query

**There are 25 species for this query.**

### Exotic

22

**Database queried on: October 21, 2015 Database last updated on: July 27, 2014**

Genus	Species	Common Name	Noxious In	Exotic
Agropyron	repens	quackgrass	OR, WY	×
Artemisia	absinthium	absinth wormwood	WA	×
Cardaria	draba	hoary cress	ID, MT, OR, WA, WY	×
Cenchrus	longispinus	longspine sandbur	WA	
Centaurea	diffusa	diffuse knapweed	ID, MT, OR, WA, WY	×
Centaurea	maculosa	spotted knapweed	ID, MT, OR, WA, WY	×
Centaurea	repens	Russian knapweed	ID, MT, OR, WA, WY	×
Chrysanthemum	leucanthemum	oxeye daisy	MT, WA, WY	×
Cirsium	arvense	Canada thistle	ID, MT, OR, WA, WY	×
Cirsium	vulgare	bull thistle	OR, WA	×
Conium	maculatum	poison hemlock	ID, OR, WA	×
Convolvulus	arvensis	field bindweed	ID, MT, OR, WA, WY	×
Equisetum	arvense	field horsetail	OR	
Euphorbia	esula	leafy spurge	ID, MT, OR, WA, WY	×
Gypsophila	paniculata	baby's breath	WA	×
Hyoscyamus	niger	black henbane	ID, WA	×
Isatis	tinctoria	dyer's woad	ID, MT, OR, WA, WY	×
Lepidium	latifolium	perennial pepperweed	ID, MT, OR, WA, WY	×
Linaria	dalmatica	dalmatian toadflax	ID, MT, OR, WA, WY	×
Linaria	vulgaris	yellow toadflax	ID, MT, OR, WA, WY	×

Panicum	miliaceum	wild proso millet	OR	×
Polygonum	sachalinense	giant knotweed	OR, WA	×
Ranunculus	acris	tall buttercup	MT	×
Solanum	rostratum	buffalobur	ID, OR, WA	
Tanacetum	vulgare	common tansy	MT, WA, WY	×

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You queried the area of Silver Bow County in Montana from 1875 to 2015 for Exotic Species.

## Results of Query

There are 94 species for this query.

### Noxious

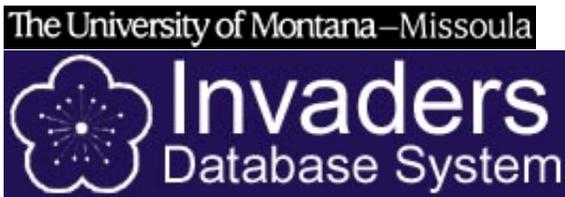
22

Database queried on: October 21, 2015 Database last updated on: July 27, 2014

Genus	Species	Common Name	Noxious In
Agropyron	cristatum	crested wheatgrass	
Agropyron	repens	quackgrass	OR,WY
Agrostemma	githago	corn cockle	
Agrostis	stolonifera	creeping bentgrass	
Agrostis	tenuis	colonial bentgrass	
Alyssum	alyssoides	yellow alyssum	
Alyssum	desertorum	dwarf alyssum	
Amaranthus	hybridus	smooth pigweed	
Arabis	glabra	tower mustard	
Artemisia	absinthium	absinth wormwood	WA
Astragalus	cicer	chick pea milk vetch	
Atriplex	hortensis	garden orach	
Barbarea	vulgaris	yellow rocket	
Berteroa	incana	hoary alyssum	
Borago	officinalis	common borage	
Bromus	briziformis	rattlesnake brome	
Bromus	commutatus	hairy chess	
Bromus	tectorum	downy brome	
Camelina	microcarpa	smallseed false flax	
Campanula	rapunculoides	creeping bellflower	

Capsella	bursa-pastoris	shepherd's purse	
Cardaria	draba	hoary cress	ID,MT,OR,WA,WY
Carum	carvi	common caraway	
Centaurea	diffusa	diffuse knapweed	ID,MT,OR,WA,WY
Centaurea	maculosa	spotted knapweed	ID,MT,OR,WA,WY
Centaurea	repens	Russian knapweed	ID,MT,OR,WA,WY
Cerastium	vulgatum	mouseear chickweed	
Chenopodium	album	common lambsquarters	
Chrysanthemum	balsamita	costmary chrysanthemum	
Chrysanthemum	leucanthemum	oxeye daisy	MT,WA,WY
Cirsium	arvense	Canada thistle	ID,MT,OR,WA,WY
Cirsium	vulgare	bull thistle	OR,WA
Conium	maculatum	poison hemlock	ID,OR,WA
Convolvulus	arvensis	field bindweed	ID,MT,OR,WA,WY
Coronilla	varia	trailing crownvetch	
Cotoneaster	acutifolius	Peking cotoneaster	
Crepis	tectorum	rooftop hawksbeard	
Dactylis	glomerata	orchardgrass	
Descurainia	sophia	flixweed	
Elymus	junceus	Russian wildrye	
Euphorbia	esula	leafy spurge	ID,MT,OR,WA,WY
Festuca	rubra	red fescue	
Gypsophila	paniculata	baby's breath	WA
Hesperis	matronalis	damesrocket	
Hyoscyamus	niger	black henbane	ID,WA
Isatis	tinctoria	dyer's woad	ID,MT,OR,WA,WY
Lactuca	serriola	prickly lettuce	
Lamium	amplexicaule	henbit	
Lepidium	latifolium	perennial pepperweed	ID,MT,OR,WA,WY
Lepidium	perfoliatum	clasping pepperweed	
Linaria	dalmatica	dalmatian toadflax	ID,MT,OR,WA,WY
Linaria	vulgaris	yellow toadflax	ID,MT,OR,WA,WY
Lithospermum	arvense	corn gromwell	
Lolium	multiflorum	Italian ryegrass	
Lolium	perenne	perennial ryegrass	
Lonicera	tatarica	Tatarian honeysuckle	
Lycium	halimifolium	matrimonyvine	
Malva	parviflora	little mallow	
Matricaria	matricarioides	pineapple weed	
Medicago	falcata	sickle medic	
Medicago	sativa	alfalfa	

Melilotus	officinalis	yellow sweetclover	
Mentha	piperita	peppermint	
Nasturtium	officinale	watercress	
Panicum	miliaceum	wild proso millet	OR
Phleum	pratense	timothy	
Poa	annua	annual bluegrass	
Poa	compressa	Canada bluegrass	
Poa	pratensis	Kentucky bluegrass	
Polygonum	aviculare	prostrate knotweed	
Polygonum	sachalinense	giant knotweed	OR,WA
Ranunculus	acris	tall buttercup	MT
Reseda	lutea	yellow mignonette	
Rhamnus	cathartica	European buckthorn	
Rumex	acetosella	red sorrel	
Rumex	crispus	curly dock	
Salsola	iberica	Russian thistle	
Saponaria	officinalis	bouncingbet	
Senecio	vulgaris	common groundsel	
Silene	csereii	smooth catchfly	
Sisymbrium	altissimum	tall tumbledustard	
Solanum	dulcamara	bittersweet nightshade	
Spergula	arvensis	corn spurry	
Syringa	villosa	late lilac	
Tanacetum	vulgare	common tansy	MT,WA,WY
Taraxacum	officinale	dandelion	
Thlaspi	arvense	field pennycress	
Tragopogon	dubius	western salsify	
Trifolium	hybridum	alsike clover	
Trifolium	pratense	red clover	
Trifolium	repens	white clover	
Verbascum	thapsus	common mullein	
Veronica	biloba	bilobed speedwell	
Viola	arvensis	field violet	



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## Results of your query

**You requested the list of noxious weeds in Montana, where the categories for noxious weeds are as follows:**

Category	Definition
1	Noxious weed: currently established and generally widespread in many counties
2	Noxious weed: recently introduced and rapidly spreading
3	Noxious weeds: not detected in MT or found only in small, scattered, localized infestations

**Below is the list of noxious weeds in Montana and their categories:**

NOTES: This list was last updated on 6/10/2004.  
 You can follow the links for state/provincial noxious status and a list of other known names.  
 The [GRIN](#) button will take you to the GRIN web site for more information.

[Contact Info-Montana](#)

Plant name	GRIN	Category
<a href="#">Cardaria draba</a> (whitetop)	<a href="#">GRIN</a>	1
<a href="#">Cardaria spp.</a> (Cardaria complex (combined))		1
<a href="#">Centaurea diffusa</a> (diffuse knapweed)	<a href="#">GRIN</a>	1
<a href="#">Centaurea maculosa</a> (spotted knapweed)	<a href="#">GRIN</a>	1
<a href="#">Centaurea repens</a> (Russian knapweed)	<a href="#">GRIN</a>	1
<a href="#">Centaurea solstitialis</a> (yellow starthistle)	<a href="#">GRIN</a>	3
<a href="#">Chondrilla juncea</a> (rush skeletonweed)	<a href="#">GRIN</a>	3
<a href="#">Chrysanthemum leucanthemum</a> (oxeye daisy)	<a href="#">GRIN</a>	1
<a href="#">Cirsium arvense</a> (Canada thistle)	<a href="#">GRIN</a>	1
<a href="#">Convolvulus arvensis</a> (field bindweed)	<a href="#">GRIN</a>	1

<u><i>Crupina vulgaris</i></u> (common crupina)	GRIN	3
<u><i>Cynoglossum officinale</i></u> (houndstongue)	GRIN	1
<u><i>Euphorbia esula</i></u> (leafy spurge)	GRIN	1
<u><i>Hieracium aurantiacum</i></u> (orange hawkweed)	GRIN	2
<u><i>Hieracium floribundum</i></u> (meadow hawkweed)	GRIN	2
<u><i>Hieracium piloselloides</i></u> (meadow hawkweed)	GRIN	2
<u><i>Hieracium pratense</i></u> (meadow hawkweed)	GRIN	2
<u><i>Hypericum perforatum</i></u> (St. Johnswort)	GRIN	1
<u><i>Iris pseudacorus</i></u> (yellowflag iris)	GRIN	3
<u><i>Isatis tinctoria</i></u> (Dyer's woad)	GRIN	2
<u><i>Lepidium latifolium</i></u> (perennial pepperweed)	GRIN	2
<u><i>Linaria dalmatica</i></u> (Dalmatian toadflax)	GRIN	1
<u><i>Linaria vulgaris</i></u> (yellow toadflax)	GRIN	1
<u><i>Lythrum spp.</i></u> (purple loosestrife)		
Note: <i>Lythrum salicaria</i> , <i>L. virgatum</i> , and any hybrid crosses thereof		2
<u><i>Lythrum virgatum</i></u> (wandlike loosestrife)	GRIN	2
<u><i>Myriophyllum spicatum</i></u> (Eurasian watermilfoil)	GRIN	3
<u><i>Potentilla recta</i></u> (sulfur cinquefoil)	GRIN	1
<u><i>Ranunculus acris</i></u> (tall buttercup)	GRIN	2
<u><i>Senecio jacobaea</i></u> (tansy ragwort)	GRIN	2
<u><i>Tamarix spp.</i></u> (Tamarix complex (combined))		2
<u><i>Tanacetum vulgare</i></u> (common tansy)	GRIN	1

You can make a new [noxious weed query](#), or [return](#) to the INVADERS Database home page.

## APPENDIX F: SHPO FILE SEARCH RESULTS

## Dan Norderud

---

**From:** Murdo, Damon <dmurdo@mt.gov>  
**Sent:** Tuesday, October 13, 2015 4:31 PM  
**To:** Dan Norderud  
**Subject:** RE: I-90 EB Scale Site - Ramsay; STPX 90-4(73)214; UPN 8797000  
**Attachments:** CRABS.pdf; CRIS.pdf; 2015101301.pdf



October 13, 2015

Daniel Norderud  
RP&A Inc.  
PO Box 5653  
Helena MT 59604

RE: I-90 EB SCALE SITE –RAMSAY STPX 90-4(73)214; UPN 8797000. SHPO Project #: 2015101301

Dear Mr. Norderud:

I have conducted a cultural resource file search for the above-cited project. According to our records there have been a few previously recorded sites within the designated search locale. In addition to the sites there have been a few previously conducted cultural resource inventories done in the areas. I've attached a list of the sites and reports. If you would like any further information regarding the sites or reports you may contact me at the number listed below.

It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are to be altered and are over fifty years old we would recommend that they be recorded and a determination of their eligibility be made.

Based on the ground disturbance required by this undertaking we feel that this project has the potential to impact cultural properties. We would ask that you contact Steve Platt at the Dept. of Transportation for any concerns that he may have regarding this project and any proposed alternative alignments. We recommend that a cultural resource inventory be conducted once an alternative is selected in order to determine whether or not sites exist and if they will be impacted.

If you have any further questions or comments you may contact me at (406) 444-7767 or by e-mail at [dmurdo@mt.gov](mailto:dmurdo@mt.gov). I have attached an invoice for the file search. Thank you for consulting with us.

Sincerely,

Damon Murdo  
Cultural Records Manager  
State Historic Preservation Office

File: MDT/2015

Township: 3 N Range: 9 W Section: 4

WILDE JAMES D., ET AL.

9 /14/1977 ARCHAEOLOGICAL INVESTIGATION DEERLODGE FLEX SELECTED TRACTS

CRABS Document Number: SB 1 9538

Agency Document Number:

Township: 3 N Range: 9 W Section: 4

BECK BARB S.

8 /3/1981 WARD LAND EXCHANGE

CRABS Document Number: ZZ 1 10751

Agency Document Number: 81-DL-S0-1

Township: 3 N Range: 9 W Section: 4

SHIVE JAMES J. ET AL.

1 / /2001 SILVER BOW GENERATION PROJECT APPLICATION TO THE DEPARTMENT OF ENVIROMENTAL QUALITY CULTUAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT TECHNICAL DATA

CRABS Document Number: ZZ 6 32883

Agency Document Number:

Township: 3 N Range: 9 W Section: 8

LEETZ GREG

8 /5/2003 FEDERATION AVIATION ROAD USE

CRABS Document Number: SB 1 36250

Agency Document Number: 03-BD-4-10

Township: 3 N Range: 9 W Section: 8

CHERULLO TAMMY L. AND GREG LEETZ

4 /13/2004 DEERLODGE NATIONAL FOREST HISTORIC PRESERVATION AND MANAGEMENT PLAN, 2003

CRABS Document Number: ZZ 1 28942

Agency Document Number: 03-BD-4-25

Township: 3 N Range: 9 W Section: 9

SHIVE JAMES J. ET AL.

1 / /2001 SILVER BOW GENERATION PROJECT APPLICATION TO THE DEPARTMENT OF ENVIROMENTAL QUALITY CULTUAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT TECHNICAL DATA

CRABS Document Number: ZZ 6 32883

Agency Document Number:

Township: 4 N Range: 9 W Section: 32

SHIVE JAMES J. ET AL.

1 / /2001 SILVER BOW GENERATION PROJECT APPLICATION TO THE DEPARTMENT OF ENVIROMENTAL QUALITY CULTUAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT TECHNICAL DATA

CRABS Document Number: ZZ 6 32883

Agency Document Number:

Township: 4 N Range: 9 W Section: 32

HOPE SHANE S.

4 /8/2014 MERCURY TOWERS: VISUAL IMPACT ASSESSMENT AND CLASS III CULTURAL RESOURCE INVENTORY OF THE PROPOSED MT SHEEP GULCH COMMUNICATION TOWER, SILVER BOW COUNTY, MONTANA

CRABS Document Number: SB 6 36950

Agency Document Number:

Site #	Twp	Rng	Sec	Qs	Site Type1	Site Type 2	Time Period	Owner	NR Status
24SB0634	3 N	9 W	9	NW	Historic Depression(s)	Historic Material Concentration		Private	undetermined
24SB0926	3 N	9 W	9	SE	Lithic Material Concentration	Null	No Indication of Time	Private	undetermined
24SB0635	3 N	9 W	9	SW	Historic Irrigation System	Null		Private	undetermined
24SB0633	3 N	9 W	9	SW	Lithic Material Concentration	Null		Private	undetermined