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IMPROVE ONE, LLC

Lakeside Club

Wildlife Assessment

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Lakeside Club Wildlife Assessment

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ACRONYMS AND ABBREVIATIONS

BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
ESA	Endangered Species Act
Improve One	Improve One, LLC
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
MFWP	Montana Fish, Wildlife and Parks
MNHP	Montana Natural Heritage Program
NCDE	Northern Continental Divide Ecosystem
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
POWER	POWER Engineers, Inc.
Project	Lakeside Club commercial development
PSOC	Potential Species of Concern
SGCN	Species of Greatest Conservation Need
SOC	Species of Concern
SSS	Special Status Species
US-93	United States Highway 93
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
UT	unnamed tributary

1.0 INTRODUCTION

Improve One, LLC (Improve One) is proposing to develop the Lakeside Club commercial development (Project) on approximately 1,700 acres in Lakeside, Montana. POWER Engineers, Inc. (POWER) was retained by Improve One to complete a wildlife study to assess existing habitat, potential effects of the proposed Project to wildlife species and habitat, and mitigation measures to minimize/avoid impacts. The Project will include an approximate 361-unit master-planned residential community with an 18-hole golf course, kids' club/park, nature walk, spa, fitness center, general store, coffee shop/bistro, village green, field house, fishing pond, fishing dock, pond huts/camping, tennis/pickleball courts, and baseball/soccer field. The Project area is located directly west of United States Highway 93 (US-93) and Flathead Lake in Lakeside, Montana. A gated entrance along US-93 provides access to the eastern boundary of the property. An additional gated entrance along Eagles Crest Road provides access to the northern boundary of the property. The legal description of the Project area includes Section 25, Township 26 North, Range 21 West, and Sections 29 and 30, Township 26 North, Range 20 West. A topographic map of the Project area is provided as Figure 1 and an aerial imagery map of the Project area is provided as Figure 2. A proposed development site plan of the Project is included in Appendix A.

2.0 EXISTING WILDLIFE AND HABITAT

2.1 Habitat

POWER conducted a site visit on October 10, 11, and 12, 2023, to support this wildlife assessment. Data from that site visit are incorporated into this analysis. Representative site photographs are provided in Appendix B. The Project area is primarily undeveloped vacant land with an airstrip, hanger, and clubhouse located in the north central portion of the property. The Project area has been historically managed for timber production and improved access roads are located throughout the 1,700-acre site. The Project area is situated within the Natural Resources Conservation Service's (NRCS') Northern Rocky Mountains Major Land Resource Area (NRCS 2022) and primarily consists of multiple age-class mixed conifer forest among moderate to steeply sloping mountainous terrain. The Project area is located within the Salish Mountains. Elevations range from approximately 3,100 to 4,555 feet above mean sea level with slopes draining in every cardinal direction from the Project area. Landcover, as identified by the Montana Natural Heritage Program (MNHP) landcover classification (MNHP 2018), includes aspen (*Populus tremuloides*) and mixed conifer forest, Northern Rocky Mountain lower montane riparian woodland and shrubland, montane-foothill deciduous shrubland, mesic and dry-mesic montane mixed conifer forest, lower montane foothill and valley grassland, harvested forest-tree regeneration, and developed open space around the airfield.

The United States Geologic Survey (USGS) topographic maps (1994) and National Hydrography Dataset (NHD 2023) indicate the presence of multiple intermittent streams across the Project area. An aquatic resource delineation conducted across the Project area indicated that only one unnamed intermittent/perennial stream is present along the western area of the site. This unnamed tributary (UT) drains north into Stoner Creek approximately 1.5 miles north of the Project area boundary and eventually into Flathead Lake. Approximately 5,078 feet of this waterway was mapped within the site. According to the MNHP Montana Spatial Data Infrastructure digital wetland mapping by Ecological Mapping, Monitoring and Analysis Group ([EMMA] 2022), approximately 11.92 acres of wetland habitat has been mapped within the Project area. Mapped wetlands include approximately 11.73 acres of riverine habitat, 0.06 acres of freshwater pond, and 0.13 acres of freshwater emergent wetland. In general, the riverine habitat is associated with the NHD-mapped intermittent streams which, with the exception of the UT Stoner Creek, did not exhibit an ordinary high-water mark or wetland hydrology within the Project area.

An approximate two-acre wetland was delineated along UT Stoner Creek at its northern extent within the site. Two excavated ponds and a constructed waterway/wetland complex are located along the airfield. There were no other aquatic features identified within the Project area. In general, the 1,700-acre site exhibits dry conditions with limited surface water.

According to the Montana Cadastral database (Montana State Library 2023) and 2021 aerial imagery, most of the Project area is surrounded by rural, vacant land. Low-density residential development is located along select areas of the northern and southeast boundaries. A private bike park is located directly south of the Project area and includes an expanse of developed recreational trails with seasonal recreational activity. US-93 marks the eastern boundary of the site. A section of Montana State Land is located along the southwestern boundary and the Flathead National Forest abuts the western boundary, providing a direct connection to an expanse of undeveloped forest land.

The Project area provides habitat for a multitude of terrestrial wildlife species including mammals, birds, fish, amphibians, and reptiles. Wildlife observed during the site visit included white-tailed deer (*Odocoileus virginianus*), mountain cottontail (*Sylvilagus nuttallii*), red squirrel (*Tamiasciurus hudsonicus*), red-tailed hawk (*Buteo jamaicensis*), ruffed grouse (*Bonasa umbellus*), American crow (*Corvus brachyrhynchos*), and northern flicker (*Colaptes auratus*). Examples of other species that may occupy the Project area include elk (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), pine marten (*Martes americana*), yellow-bellied marmot (*Marmota flaviventris*), coyote (*Canis latrans*), striped skunk (*Mephitis mephitis*), red fox (*Vulpes vulpes*), bobcat (*Lynx rufus*), snowshoe hare (*Lepus americanus*), and smaller prey animals such as deer mouse (*Peromyscus maniculatus*), meadow vole (*Microtus pennsylvanicus*), and shrew (*Sorex* spp.). Migratory birds such as mountain chickadee (*Poecile gambeli*), cliff swallow (*Petrochelidon pyrrhonota*), Clark's nutcracker (*Nucifraga columbiana*), black-billed magpie (*Pica hudsonia*), and western tanager (*Piranga ludoviciana*) likely inhabit the area. The limited aquatic resources on the site constrains the potential presence of aquatic species such as fish and amphibians to the lower extent of UT Stoner Creek and the two ponds and one wetland area near the airfield. These ponds may provide minor habitat for a variety of waterfowl and waterbirds drawn to the area's expanse of open water associated with Flathead Lake.

Montana Fish, Wildlife and Parks (MFWP) has developed geographic distributions for a multitude of wildlife species throughout the state. An analysis of MFWP's published distribution data indicates the Project area is within the general and winter range for white-tailed deer, mule deer, moose (*Alces alces*), elk, gray wolf (*Canis lupus*), and black bear (*Ursus americanus*). MFWP Kalispell area wildlife biologists indicate south and southwest facing aspects are important topographic features for winter range and ridges and valleys can be important movement pathways across the landscape. The Project area is located along the eastern boundary of Heart of the Salish big game habitat priority area and along the Pacific flyway.

2.2 Sensitive Species

Sensitive species addressed in this wildlife assessment report include species protected under the Endangered Species Act (ESA), Bald and Golden Eagle Protection Act (BGEPA), and species identified by MNHP as Species of Concern (SOC) within the vicinity of the Project area (Table 1). The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) report for the Project area includes ESA-listed (threatened, endangered, proposed) species having potential to occur within the general vicinity (one-mile buffer) of the Project area. The one-mile buffer surrounding the Project area does not overlap with any federally designated critical habitat. The IPaC report for the Project area is included in Appendix C.

Species tracked by the MNHP include those listed by the MNHP as SOC, Potential Species of Concern (PSOC), and Special Status Species (SSS), and by the State Wildlife Action Plan as Species of Greatest Conservation Need (SGCN). The MNHP Montana Field Guide defines SOC as native taxa that are at-risk due to declining population trends, threats to their habitats, restricted distribution, and/or other factors. PSOC are native taxa for which current, often limited, information suggests potential vulnerability. SSS are species that have some legal protections in place but are otherwise not Montana SOC. Designation as a SOC or PSOC is based on the Montana Status Rank and is not a statutory or regulatory classification. The Montana State Wildlife Action Plan defines SGCN as species whose needs be specifically addressed through broad or fine scale actions (MFWP 2015).

MNHP provided an environmental summary of potential species occurrences for all one-square mile hexagons intersected by the Project area (MNHP 2023b; Appendix D). Note that species occurrences provided by MNHP includes large buffers around documented occurrences to both encompass lands that individual may occupy and to disguise the precise location of the occurrence. A review of the MNHP species occurrence spatial data for animal species of concern (MNHP 2023a) did not identify any documented occurrences of these species within the Project area. MNHP’s definition of a species occurrence varies by species. For example, grizzly bear species occurrence is defined as all areas within the USFWS designated recovery zone, not necessarily where a grizzly bear was documented to be observed; whereas bald eagle occurrences include confirmed nesting observations buffered by a minimum distance of 2,000 meters in order to be conservative about encompassing the breeding territory and area commonly used for renesting (MNHP 2023a).

A summary of USFWS-listed and MNHP SOC wildlife addressed in this report is provided in Table 1 and are discussed in detail below.

TABLE 1 SENSITIVE SPECIES

SPECIES ¹	FEDERAL STATUS ²	STATE STATUS ²	HABITAT SUMMARY ³
Birds			
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	BGEPA	SSS; S4	Riparian and lacustrine habitats. Typically, close to larger water bodies with fish populations.
Cassin's Finch (<i>Haemorhous cassinii</i>)	MBTA	SOC; S3; SGCN	Occur in every major forest type and timber-harvest regime in Montana.
Evening Grosbeak (<i>Coccothraustes vespertinus</i>)	MBTA	SOC; S3; SGCN	Breeds in mixed coniferous and spruce-fir forest of western Montana. Winter habitat includes coniferous forest as well as urban and suburban areas statewide.
Pileated Woodpecker (<i>Dryocopus pileatus</i>)	MBTA	SOC; S3; SGCN	Late successional stages of coniferous forest with large dead trees.
Brown Creeper (<i>Certhia americana</i>)	MBTA	SOC; S3; SGCN	Prefers mature and old-growth coniferous and mixed coniferous-deciduous forests.
Varied Thrush (<i>Ixoreus naevius</i>)	MBTA	SOC; S3B; SGCN	Shrubsteppe habitats dominated by sagebrush.
Mammals			
Canada Lynx (<i>Lynx canadensis</i>)	Threatened	SOC; S3; SGCN	Subalpine forests of lodgepole pine, mixed stands of subalpine fir, Douglas fir, grand fir, western larch, and hardwood.

SPECIES ¹	FEDERAL STATUS ²	STATE STATUS ²	HABITAT SUMMARY ³
Grizzly Bear (<i>Ursus arctos</i>)	Threatened	SOC; S2S3; SGCN	Habitat generalist highly variable by season. Meadows, seeps, riparian zones, timber, mixed-shrub fields, sidehill parks, snow chutes, and alpine slabrock.
North American Wolverine (<i>Gulo gulo</i>)	Proposed Threatened	SOC; S3; SGCN	Alpine tundra and boreal and mountain forest.
Fisher (<i>Pekania pennanti</i>)	--	SOC; S3; SGCN	Dense coniferous or mixed forest with a dense understory of young conifers, shrubs, and herbaceous cover.
Little Brown Myotis (<i>Myotis licifugus</i>)	--	SOC; S3; SGCN	Variety of habitats. Summer roosts include attics, barns, bridges, snags, loose bark, and bat houses. Hibernacula include caves and mines.
Reptiles			
Western Skink (<i>Plestiodon skiltonianus</i>)	--	SOC; S3; SGCN	Open conifer forest and adjacent grasslands
Northern Alligator Lizard (<i>Elgaria coerulea</i>)	--	SOC; S3; SGCN	Talus slopes / rock outcrops
Fish			
Westslope Cutthroat Trout (<i>Oncorhynchus clarkii lewisii</i>)	--	SOC; S2; SGCN	Mountain streams, rivers, lakes
Bull Trout (<i>Salvelinus confluentus</i>)	--	SOC; S2; SGCN	Mountain streams, rivers, lakes
Pygmy Whitefish (<i>Prosopium coulterii</i>)	--	SOC; S3; SGCN	Deep mountain lakes and tributaries

¹Includes species provided by MNHP Environmental Summary and USFWS IPaC with potential occurrence within vicinity of Project area.

² MBTA = Migratory Bird Treaty Act; SSS = Special Status Species; SOC = Species of Concern; PSOC = Potential Species of Concern; SGCN = Species of Greatest Conservation Need.

³MNHP 2023; MFWP 2023.

2.2.1 Federally Listed Species

The IPaC report (IPaC 2023) identifies three wildlife species that are federally listed or proposed for listing with potential to occur within the Project area. These species include Canada lynx (*Lynx canadensis*), grizzly bear (*Ursus arctos*), and the North American wolverine (*Gulo gulo luscus*). While specific habitat requirements vary by species, all three species are large carnivores that require large expanses of relatively undisturbed wilderness. The direct abutment of the Project area's western boundary to the broad expanse of the Flathead National Forest provides a travel corridor that may promote incidental use of the area by these species. Potential disturbance from human presence and/or conflict with humans may be increased by Project development, effectively reducing the overall habitat quality for these species. It is anticipated that suitability of habitat for these species may be reduced within the proposed Project area during and following build-out.

Grizzly Bear

In 1975, the Grizzly bear was designated as threatened in the lower 48 states under the ESA. The species was delisted due to recovery in 2007 but relisted as threatened in 2009 due to concerns over inadequate

conservation plans and declines in whitebark pine, an important source of food for grizzly bears. The recovery plan for this species identifies six ecosystem recovery zones, which represent areas large enough and of sufficient habitat quality to support a recovered grizzly bear population. Grizzly bears utilize a variety of open and forested vegetation types. They range over large areas, with home ranges of hundreds of square kilometers, and often move seasonally in response to food availability. Important food resources include carrion, fish, berries, roots, and succulent green vegetation. Grizzly bears require large blocks of wilderness and typically avoid roads and areas of high human population (MNHP 2023a).

According to MNHP data, the Project area is located within the Northern Continental Divide Ecosystem (NCDE) although this boundary is depicted by USFWS spatial data approximately eight miles east of the site. This NCDE the Bob Marshall, Scapegoat, and Great Bear Wilderness Areas, the Mission, Whitefish, and Salish Ranges and Glacier National Park and has relatively continuous grizzly habitat. Species occurrence polygons provided by MNHP for grizzly bear represent the NCDE recovery zone boundaries but does not indicate any specific occurrence of grizzly bears. By most recent USFWS estimates (2018), a population of approximately 1,029 bears occur within the NCDE recovery zone (MNHP 2023a). A total of 1,417 grizzly observations have been catalogued by MNHP in and around this area.

Canada Lynx

In 2000, Canada lynx became a federally listed threatened species. They primarily occur in subalpine forest with deep snow. Their main prey species is snowshoe hare (*Lepus americanus*), so disturbances that create early successional forest are often used for hunting as is the dense cover near the edges of openings. These habitats often support higher populations of snowshoe hares, though mature forest also provides habitat for snowshoe hares and lynx. Lynx require cover for hunting and for security, and rarely cross openings wider than 100 meters. Typical home range sizes are 16 to 20 square kilometers. Canada lynx are non-migratory, but dispersal movements of over 100 miles have been recorded (MNHP 2023a).

There were no species occurrence records catalogued by MNHP for Canada lynx within the vicinity of the Project area. The nearest designated critical habitat for this species is in the Mission Mountain Range located east of Flathead Lake. Suitable habitat for Canada lynx, including prey species, was identified within the Project area and may provide incidental Canada lynx habitat.

Wolverine

At the time of this report, the North American Wolverine is currently proposed for listing as a threatened species but will be listed as threatened on January 2, 2024 (USFWS 2023). This species was nearly extirpated from the contiguous United States by 1930 but has recovered to approximately 300 individuals as of 2013. Wolverines are associated with alpine tundra and subalpine forest in steep terrain with talus and deep snow, and they require large tracts of wilderness with a diverse prey base (MNHP 2023a). Home ranges of wolverines are typically large, ranging from 40 to 350 square miles.

Wolverine have been observed approximately eight miles from the Project area within the Mission Mountains situated on the east side of Flathead Lake, but MNHP does not provide more specific occurrence information. A total of 467 observations of wolverine have been catalogued by MNHP in the Mission Mountains including direct observation, animal sign, and harvest reports. MNHP geodata did not indicate wolverine occurrence within the Project vicinity. Limited suitable habitat for the wolverine was identified within the Project area.

2.2.2 Special-Status Species/Species of Concern

Special-status and species of concern data provided by MNHP included six birds, three mammals, two reptiles, and three fish within the vicinity of the Project area (Table 1, Appendix D). All six bird species are protected under Migratory Bird Treaty Act (MBTA) and, aside from the varied thrush (*Ixoreus naevius*), are year-round residents of the area. All six species have been documented to breed within the vicinity of the Project area (MNHP 2023b).

The bald eagle is listed as SSS in Montana and is federally protected under BGEPA and MBTA. The MNHP database catalogues 76 bald eagle occurrences around the Flathead Lake area and have noted a steady increase in population numbers since the 1980s. The nearest documented bald eagle nests to the Project area are approximately one mile northeast of the Project boundary along the shoreline of Flathead Lake and include confirmed nesting area.

Brown creeper (*Certhia americana*) is a small cryptic brown songbird that habitually creeps up tree trunks in search of bark-dwelling invertebrates. They inhabit mature coniferous and mixed coniferous-deciduous forests. Breeding bird survey data indicate a slight range-wide decline for the species since 1980, with no decline detected in Montana. The MNHP database records the nearest brown creeper occurrence on State Land approximately 0.5 miles southwest of the Project area boundary.

Evening grosbeak (*Coccothraustes vespertinus*) is a distinctive large yellow, black, and white finch, with a massive greenish-yellow bill. The species breeds in mixed-coniferous and spruce-fir forests and winter in a variety of habitats, including coniferous forests and urban/suburban areas where they often congregate in large flocks at bird feeders. Several studies suggest this species is most abundant in mature, structurally diverse forest. The Cabinet, Salish and Purcell Mountain Ranges have relatively continuous habitat for this species. The nearest recorded occurrence of this species to the Project area is approximately 1.5 miles north along Stoner Creek.

Pileated woodpecker (*Drycopus pileatus*) relies on large-diameter trees for nesting and is most commonly associated with mature and old-growth forest but will also occur in younger forest with scattered large trees. Timber harvest has the most significant impact on the species, especially removal of large diameter live or dead trees (MNHP 2023a). MNHP documents 59 pileated woodpecker occurrences around the Flathead Lake vicinity with the nearest occurrence approximately one mile east of the Project area.

Cassin's finch (*Haemorhous cassinii*) is a small, rose-colored finch with a conical bill. The species is widespread and abundant in coniferous forests throughout the Intermountain West, and regularly visits bird feeders. Cassin's finches were one of three finch species that regularly appeared in flocks during summer on the grounds of the University of Montana's Biological Station on Flathead Lake (MNHP 2023a). Breeding bird survey data indicate substantial declines since 1980 within Montana and range-wide, though reasons for the decline have not been identified (MNHP 2023). MNHP documents 25 occurrences of Cassin's finches within the Project vicinity with the nearest occurrence on State Land approximately 0.25 mile southwest of the Project area boundary.

Varied thrush is a large, brightly colored thrush with black and orange plumage and ethereal song. This species breeds in mixed-coniferous forests and is more abundant in mature and old-growth stands than in younger forest (MNHP 2023b). The varied thrush has undergone recent population declines in Montana and across the Northern Rockies where timber harvest, insect outbreak, and fire result in a loss of suitable breeding habitat (MNHP 2023b). MNHP documents three occurrences of this species within the Project vicinity with the nearest occurrence approximately 1.9 miles southeast of the Project boundary.

Little brown myotis (*Myotis licifugus*) is a habitat generalist when foraging; however, it has been known to favor areas over water. This species is under significant threat of catastrophic declines due to white-nose syndrome. Thirteen occurrences of this species have been documented around Flathead Lake with the nearest occurrence around the town of Lakeside approximately 1.9 miles north of the Project area. Data provided by MNHP included five documented bat roost (one cave, four non-cave) with the nearest roosts approximately eight miles away near the town of Big Fork. The Project area does not appear to include suitable winter roosting habitat for these species but provides opportunity for summer roosts under loose bark or snags. Foraging habitat for this species is limited to the two small ponds near the airfield.

Fisher (*Pekania pennanti*) is a medium-sized mammal with a long, low stocky body. They are primarily terrestrial but well adapted for climbing. When inactive, they occupy dens in tree hollows, under logs, or in ground or rocky crevices or rest in branches of conifers. Forest structure, which affects prey abundance and vulnerability and provides denning and resting sites, is probably more important than tree species composition with large snags important as maternal den sites (MNHP 2023b). Fishers are generally solitary except during the breeding season and home ranges have been estimated at 10 to 800 square kilometers (MNHP 2023b). Generally, the ranges of adults of the same sex do not overlap. Fishers were extinct in Montana by the 1930's with reintroduction efforts in the Cabinet Mountains between 1988 and 1991 (MNHP 2023b). The Cabinet, Salish and Purcell Mountain Ranges have relatively continuous habitat for this species with a total of 91 observations catalogued in this area. The Flathead National Forest located west of the Project area provides core habitat for this species. The species is currently managed as a furbearer with a limited harvest of 7 animals.

MNHP identifies two reptile species of concern within the Project vicinity: the western skink (*Plestiodon skiltonianus*) and northern alligator lizard (*Elgaria coerulea*). The western skink is the only lizard in Montana that appears to have a smooth and shiny body, and whose tail is blue in juveniles and young adults. Western skinks have been found in open ponderosa pine (*Pinus ponderosa*) woodland in or near talus and feed primarily on insects and spiders (MNHP 2023b). MNHP observation data document to occurrence of western skink approximately 0.75 miles southeast of the Project area along Flathead Lake in an open conifer forest with adjacent grasslands.

The northern alligator lizard occurs in areas cooler and more humid than tolerated by most lizards but does require sunny clearings. Records associated with encounters of this species indicate occurrence on south-facing slopes in or at the margins of fine to coarse talus (MNHP 2023b). The nearest MNHP-recorded occurrence of this species is approximately 0.9 miles southeast of the Project area boundary. Suitable habitat for both of these reptile species were identified within the Project area.

Three fish species of concern have been recorded within the vicinity of the Project area by MNHP. These species include westslope cutthroat trout (*Oncorhynchus clarkii lewisi*), bull trout (*Salvelinus confluentus*), and pygmy whitefish (*Prosopium coulterii*). As noted above, suitable fish habitat was not identified during a delineation of aquatic resources within the Project area. In general, these species are found in deep mountain lakes, streams, and rivers and are reported within Flathead Lake.

3.0 IMPACTS ON WILDLIFE AND HABITAT

3.1 Direct Impacts

The proposed Project will result in disturbance to wildlife habitat throughout the 1,700-acre site. The development of 320 individual homesites, approximately 40 additional dwelling structures (cabins, casitas), an 18-hole golf course, a central core village, and associated infrastructure across the site will

directly reduce the quantity and quality of existing habitat within the Project area by increasing fragmentation of the landscape and creating structural barriers to animal movement. Increased human activity and structures will increase the potential for wildlife collisions with vehicles and building windows (migratory birds). Species sensitive to human presence may be displaced from the Project area into adjacent habitats during and following Project development. Foraging habitat for carnivores may be impacted by potential decreased prey habitat. Construction of the golf course along UT Stoner Creek may result in adverse effects to existing aquatic habitat. UT Stoner Creek is generally characterized by intermittent hydrology with pool/drops and discontinuous surface water along its upper reach and exhibiting perennial hydrology along the lower extent of this waterway near the northern Project boundary. This stream did not appear to support fish habitat when the aquatic survey was completed. Aquatic macroinvertebrates and other lower trophic organisms within this waterway may be displaced and result in lower food sources for amphibians and downstream consumers. Based on the proposed site plan, a handful of steep slopes will be preserved as a refugium for wildlife accustomed to steep mountainous terrain.

3.2 Indirect Impacts

Indirect impacts will result from decreased habitat quality and human disturbance leading to altered behavior or displacement of wildlife species in surrounding habitat beyond the boundaries of the infrastructure footprints. This will include short-term impacts during construction and long-term impacts from occupancy of the development. Completion of the Project will result in an increase in human activity and a likely increase in pet activity within the Project area. This may lead to increased interaction and disturbance to wildlife that continue to use the Project area. Increased disturbance from humans and pets can lead to increased energy expenditure for wildlife and may cause wildlife to avoid otherwise suitable habitat. The Project may lead to increased sedimentation during construction phases of the Project and an increase in impermeable surfaces leading to increased run-off after construction is complete. Application of best management practices (BMPs) to limit sedimentation and run-off would reduce these impacts to a minimal level.

4.0 AVOIDANCE AND MINIMIZATION MEASURES

Protection measures described in this section would reduce potential impacts to wildlife species and general wildlife habitat. Such measures that will be particularly valuable include leaving as much native vegetation in place to the extent practicable, including large-diameter trees and snags; applying standard BMPs during construction to minimize sedimentation and excess run-off; minimizing the use of fencing to that which is required to contain pet/livestock or exclude wildlife from attractants; minimizing and requiring dogs to be fenced, on-leash, or otherwise supervised/restrained; revegetating temporarily disturbed areas with native species suitable for the site as soon as practicable following disturbance; and controlling weed species throughout the Project area.

While the proposed Project will impact existing wildlife habitat across the 1,700-acre property, open space will remain between development clusters along steeper slopes, some ridges, and prominent drainages, providing potential habitat connectivity throughout the site. A 30-foot buffer will be applied to all aquatic resources surveyed along UT Stoner Creek. This buffer will be a “no build zone” intended to protect existing riparian vegetation and minimize impact to this waterway. Applicable BMPs should be applied to Project design to maintain natural hydrological and ecological functions.

Informal consultation with MFWP regarding this proposed Project provided general recommendations for subdivision development in Montana to minimize the impacts of the Project to wildlife resources. MFWP recommends that development is consolidated to limit habitat fragmentation. MFWP provides a set of

non-binding fish and wildlife recommendations for subdivision development to avoid and minimize impacts to fish and wildlife and their habitats (MFWP 2012). Some of the key MFWP recommendations and their applicability to Project are briefly summarized in the following bullets:

- **Approach to Subdivision Design:** MFWP encourages consultation between local MFWP wildlife biologist and the subdivision's representative to verify the preliminary assessment, provide site-specific information and recommendations on minimizing impacts to big game winter range to be incorporate into the design of proposed Project. General design standards recommended by FWP include:
 - Cluster the subdivision design features on as small a footprint as possible, as far from winter as possible, and as close to existing development as possible.
 - Locate areas of proposed open space immediately adjacent to existing winter range or open space on adjacent lands, in order to maintain the functional connection with other open space and winter range on public and private lands.
 - Provide or maintain linkage within a winter range patch, between isolated patches of winter range, or between summer range and winter range.
- **Perennial Streams:** A minimum of 150 feet of vegetated buffer plus 50 additional feet of building setback. Total building setback equals at least 200 feet from each side of a perennial stream. If the riparian area associated with a water body extends beyond the pertinent vegetated buffer outlined above, extend the vegetated buffer to encompass all of the riparian area. UT Stoner Creek functions as an intermittent waterway throughout most of the Project area and exhibits perennial hydrology near the northern boundary of the site.
- **Other Water Bodies:** A minimum of 100 feet of vegetated buffer plus 30 additional feet of building setback. Total building setback equals at least 130 feet from the boundary of a wetland or pond, or the ordinary high-water mark of an intermittent stream, lake, or reservoir. If the riparian area associated with a water body extends beyond the pertinent vegetated buffer outlined above, extend the vegetated buffer to encompass all of the riparian area.
- **Human/Bear Conflicts:** Covenants for the completed development should include specifications regarding human/bear conflicts. Provide adequate bear-resistant facilities for garbage collection. MFWP has recommended specifications for such facilities (see MFWP 2012), and the local MFWP bear management specialist is encouraged to work with the subdivider to install an effective facility. A compactor site may also be considered for trash from both the residential and commercial developments.
- **Native Grassland and Shrub Habitats:** Consult with a local MFWP wildlife biologist or other biologist to confirm the approximate boundaries of any native grassland or native shrub habitat patches on or adjacent to the proposed development. For the Project Area, this may require a site visit as the existing land cover data does not appear to accurately identify native shrub and grassland patches and may overestimate the actual amount of habitat.
 - For native grass/shrub patches greater than 25 acres in size, it is recommended that not more than 5 percent of the patch be developed.
 - For native grass/shrub patches greater than 100 acres in size, the developer is advised to consult with MFWP for site-specific recommendations.

- If subdivision design features (e.g., buildings, roads, utilities) are located inside native grass/shrub habitat patches, place them adjacent to, or as close as possible to, existing development located outside of the habitat patches. Cluster the subdivision design features on as small a footprint as possible.
 - Locate areas of proposed open space immediately adjacent to existing native vegetation or open space on adjacent lands in order to maintain the functional connection with other open space and native grassland and native shrub habitat patches on public and private lands.
 - Minimize the extent of subdivision roads needed to provide access to all areas proposed for development.
 - Install new utility lines underground.
 - Revegetate with native seed after road construction and utility installation.
 - Develop a weed control plan, approved by the local weed district, for the entire property proposed for subdivision.
- **Migratory Birds—Raptors:** Install power lines in a manner that protects raptors from electrocutions if the lines are located within vegetated buffers for bald eagle, golden eagle, and ferruginous hawk. Raptor power line design standards can be found in Suggested Practices for Raptor Protection on Power Lines (Avian Power Line Interaction Committee 2006).
 - **Big Game Winter Range:**
 - Minimize habitat fragmentation and loss of winter range by clustering the subdivision design features on as small a footprint as possible, locating areas of proposed open space immediately adjacent to existing winter range or open space on adjacent lands, and provide linkage to habitat components.
 - Maintain the ability of big game animals to travel freely within a winter range habitat patch, and between winter range habitat patches and other seasonal ranges.
 - Maintain MFWP's ability to manage wildlife effectively and as non-habituated herds.
 - Minimize the potential for subdivisions to lead to problematic concentrations of big game.
 - Minimize wildlife/human conflicts, including negative impacts on adjacent property (e.g., game damage on agricultural lands).
 - Consult with the local MFWP wildlife biologist to verify preliminary assessment.

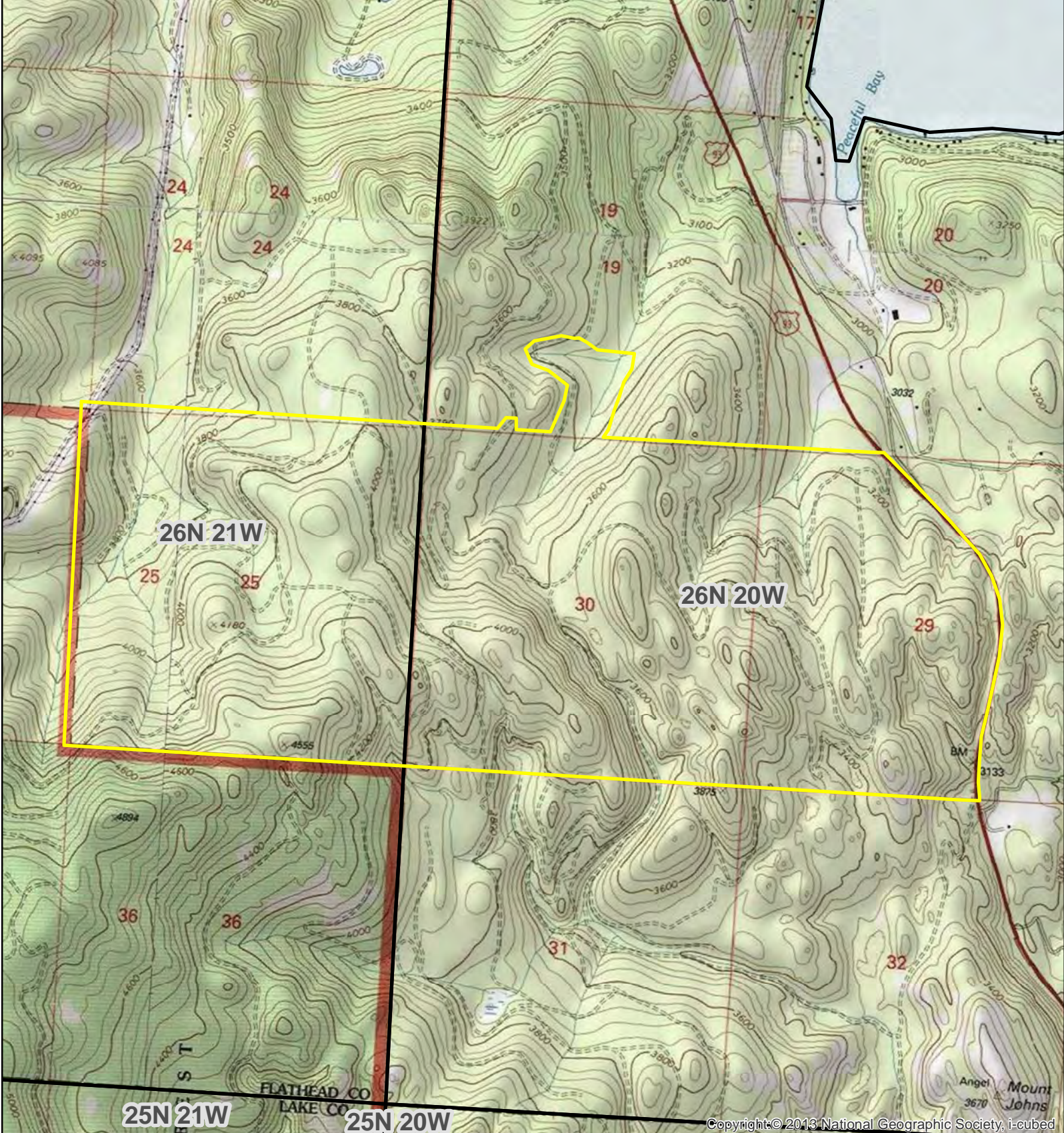
Although a preliminary site plan has been developed, consideration should be given to how animals use and move across the landscape to minimize fragmentation and preserve movement corridors. As designed, this Project provides a buffer from development along the USFS and State Forest boundaries. Additional consideration has been afforded to providing a buffer from disturbance along UT Stoner Creek. Implementing wildlife protection measures via subdivision covenants for occupants of the development may minimize impacts. Other general recommendations include:

- Minimize new construction of roads where possible.
- Fences, when necessary, should be of wildlife-friendly construction.
- Property owners should be aware that feed or supplements (i.e., salt blocks) are attractants and are against state law (MCA 87-3-130) for public safety and wildlife health.
- Pets should be controlled and not be allowed to roam. Under current state law it is illegal for dogs to chase hoofed game animals and the owner may be held guilty for their dogs' behavior (MCA 87-3-124).

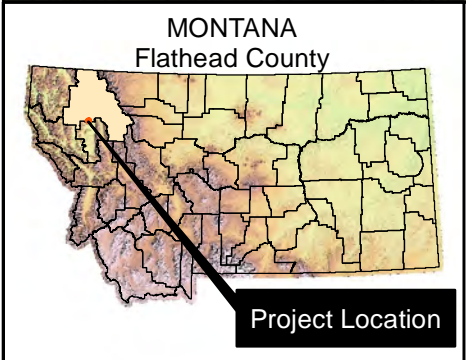
- Homeowners must be aware that wildlife, particularly deer and elk, will feed on green lawns, gardens, flowers, ornamental shrubs, and trees. Homeowners should consider landscaping with native vegetation that is less likely to suffer extensive feeding damage, and/or providing structural protection for their new landscaping.
- Landowners should be aware of the predator component in the area and take appropriate precautions with children, pets, and when recreating.

5.0 REFERENCES



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- Montana State Library. 2023. Montana Cadastral Framework. Online linkage: [Montana Cadastral Framework](#)
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- Information for Planning and Consultation (IPAC). 2023. U.S. Fish and Wildlife Service (USFWS) Website available at: <https://ecos.fws.gov/ipac/>. Project-specific report generated on 11/13/2023.
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- _____. 1994. 7.5-minute Topographic Quadrangle Map. Proctor, Montana.
- _____. 1994. 7.5-minute Topographic Quadrangle Map. Rollins, Montana.



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Legend

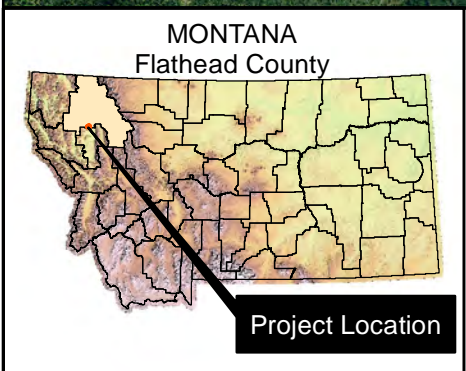
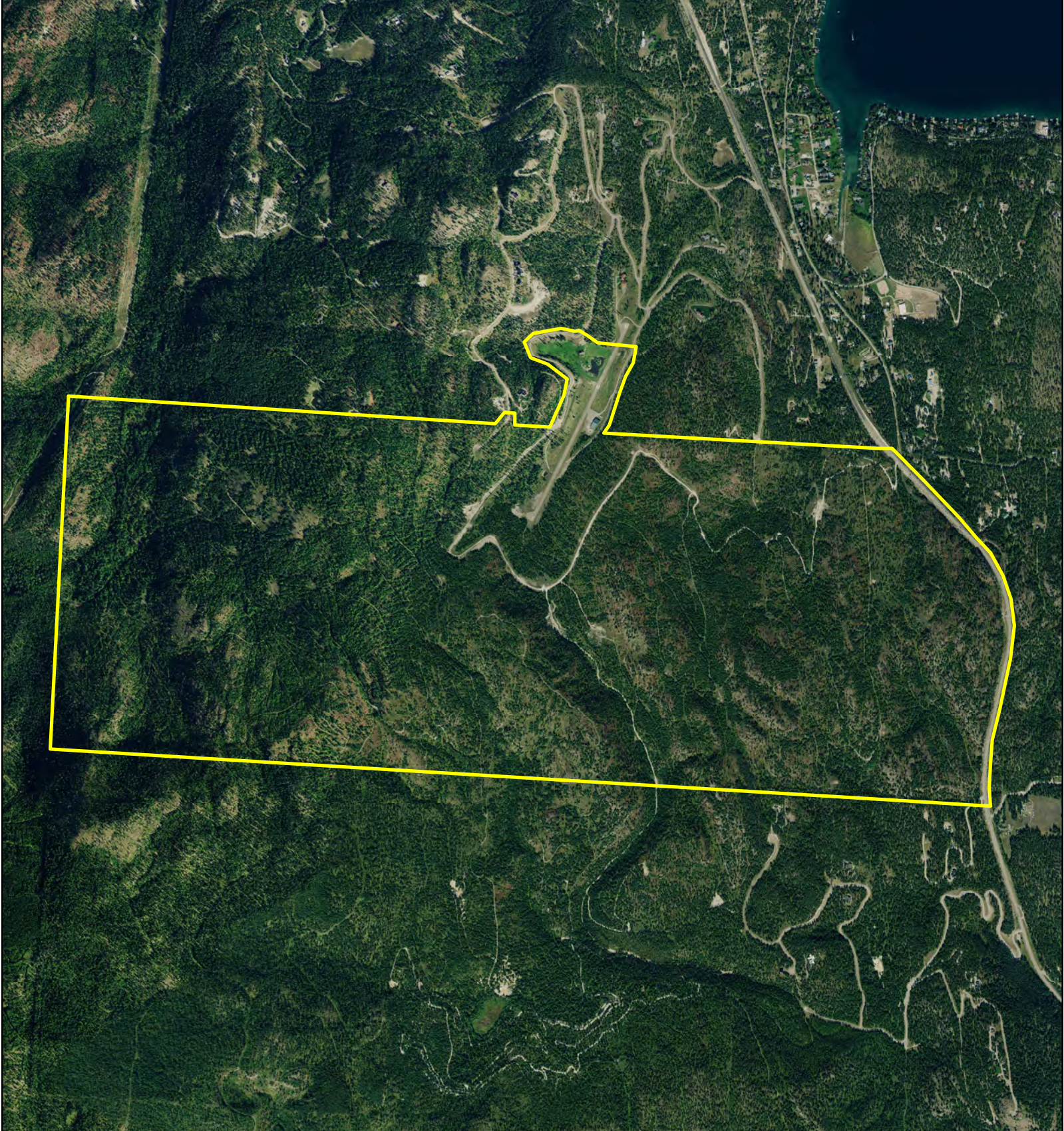
-  Lakeside Club Project Area
-  PLSS Township/Range

Lakeside Club


Figure 1:
Topographic/Vicinity Map

0 750 1,500 3,000
Feet




Legend

 Lakeside Club Project Area


Lakeside Club

Figure 2:
2021 NAIP Map

0 750 1,500 3,000
Feet



POWER
ENGINEERS



APPENDIX A CONCEPTUAL SITE PLAN



LEGEND

- 1 Entry / Gate House
 - 2 Pocket Park
- Kids Play
- Nature Walk
 - 3 Recreation Amenity
 - 4 Central Core Village ± 23,000 S.F.
- General Store
- Coffee / Bistro
- Sales and Development Offices
- Village Green
- Field House
- Farm to Table
- Kids Club
- Fishing Pond
- Fishing Dock
- Pond Huts / Camping
- Tennis Courts
- Pickleball Courts
- Padel Courts
- Baseball / Soccer Field
 - 5 BOH - Development Office
 - 6 EVA (Access to Bike Park)
 - 7 Amenity ± 12,000 S.F.
- Signature Dining
- Lake View
- Wellness / Fitness
 - 8 Gate / EVA Access
 - 9 Summit F & B ± 6,000 S.F.
- Signature Dining
- Lake Views
- Connection back to Golf Club
 - 10 Golf House ± 10,000 S.F.
 - 11 Access to State Land
 - 12 Golf Maintenance
-
- TOTAL** ± 51,000 S.F.

DEVELOPMENT SUMMARY

SITE SUMMARY	AC	DU/AC	DU
Lake View Homesites (±1 AC - ±3 AC)	-	-	283
Non - Lake View Homesites (±1 AC - ±3 AC)	-	-	37
Cabins (90'-110'W x 110'L)	-	-	20
Golf Casitas (90'-110'W x 110'L)	-	-	21
TOTAL UNITS			361

APPENDIX B REPRESENTATIVE SITE PHOTOS



Photo 1: Existing pond with wetland habitat near airfield.



Photo 2: Constructed wetland habitat near airfield.



Photo 3: Existing pond near airfield.



Photo 4: Upper intermittent reach of UT Stoner Creek.



Photo 5: Lower reach of UT Stoner Creek.



Photo 6: Approximate 2-acre wetland area located along UT Stoner Creek at northern boundary of Project area.



Photo 7: View of typical forest habitat from ridge.



Photo 8: View showing forested mountainous terrain with dispersed forest openings.



Photo 9: View west at adjacent Flathead National Forest property.



Photo 10: View of ridge with forest and grassland habitat.



Photo 11: View showing forested property to south of Project area.

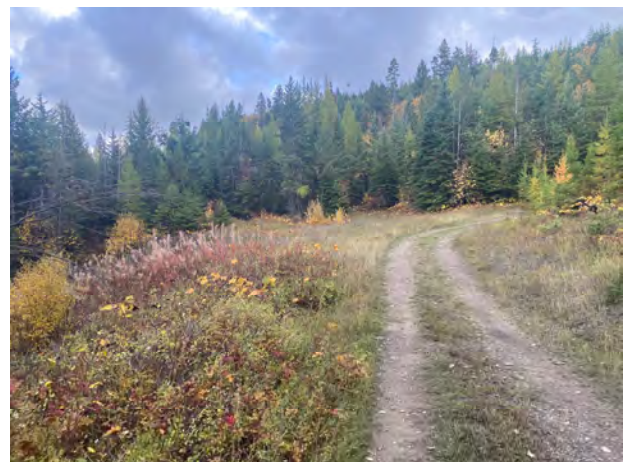


Photo 12: Typical existing access road through Project area.

APPENDIX C USFWS IPAC RESULTS

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Flathead County, Montana



Local office

Montana Ecological Services Field Office

☎ (406) 449-5225

📄 (406) 449-5339

585 Shephard Way, Suite 1
Helena, MT 59601-6287

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

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

Insects

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

Flowering Plants

NAME	STATUS
Spalding's Catchfly <i>Silene spaldingii</i> Wherever found There is proposed critical habitat for this species. https://ecos.fws.gov/ecp/species/3681	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

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

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the

probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

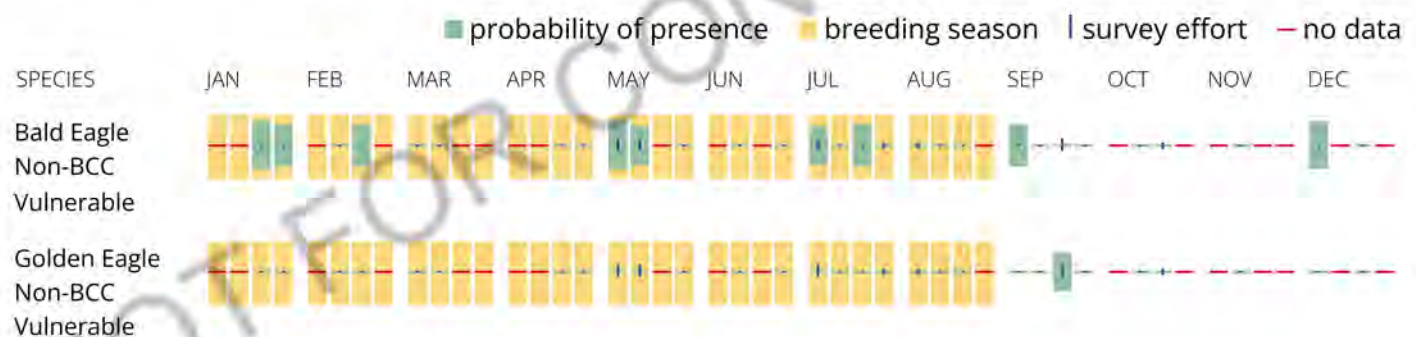
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see

exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Jan 1 to Aug 31
<p>California Gull <i>Larus californicus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p>Cassin's Finch <i>Carpodacus cassinii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462</p>	Breeds May 15 to Jul 15
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Aug 10
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lewis's Woodpecker <i>Melanerpes lewis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30

Rufous Hummingbird *selasphorus rufus*

Breeds Apr 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Western Grebe
BCC Rangewide
(CON)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key

component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

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.

APPENDIX D MNHP ENVIRONMENTAL SUMMARY



MONTANA STATE LIBRARY

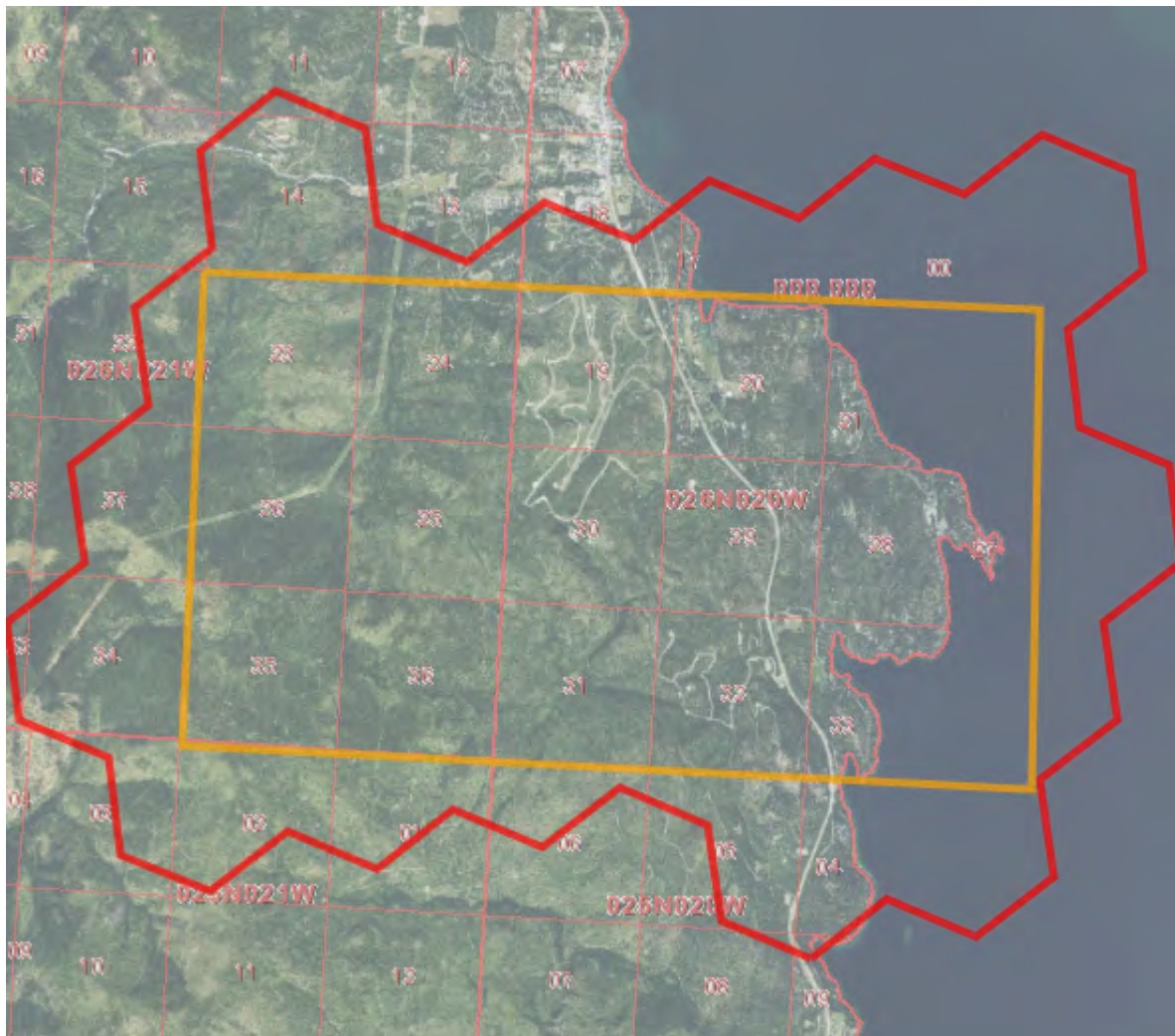
NATURAL HERITAGE PROGRAM mtnhp.org

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



Latitude	Longitude
47.94118	-114.14681
48.02763	-114.30054

Summarized by:
24PRVT0118 - Lakeside
(Custom Area of Interest)



Suggested Citation

Montana Natural Heritage Program. Environmental Summary Report.
for Latitude 47.94118 to 48.02763 and Longitude -114.14681 to -114.30054. Retrieved on 11/13/2023.

The Montana Natural Heritage Program is part of the Montana State Library's Natural Resource Information System. Since 1985, it has served as a neutral and non-regulatory provider of easily accessible information on Montana's species and biological communities to inform all stakeholders in environmental review, permitting, and planning processes. The program is part of the NatureServe network that is composed of over 60 member programs across North America that work to provide current and comprehensive distribution and status information on species and biological communities.



Environmental Summary

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- [Species Report](#)
- [Structured Surveys](#)
- [Land Cover](#)
- [Wetland and Riparian](#)
- [Land Management](#)
- [Biological Reports](#)
- [Invasive and Pest Species](#)
- [Introduction to Montana Natural Heritage Program](#)
- [Data Use Terms and Conditions](#)
- [Suggested Contacts for Natural Resource Agencies](#)
- [Introduction to Native Species](#)
- [Introduction to Land Cover](#)
- [Introduction to Wetland and Riparian](#)
- [Introduction to Land Management](#)
- [Introduction to Invasive and Pest Species](#)
- [Additional Information Resources](#)

Introduction to Environmental Summary Report

Environmental Summary Reports from the Montana Natural Heritage Program (MTNHP) provide information on species and biological communities to inform all stakeholders in environmental review, permitting, and planning processes. For information on environmental permits in Montana, please see permitting overviews by the [Montana Department of Environmental Quality](#), the [Montana Department of Natural Resources and Conservation](#), the [Index of Environmental Permits for Montana](#) and our [Suggested Contacts for Natural Resource Management Agencies](#). The report for your area of interest consists of introductory and related materials in this PDF and an Excel workbook with worksheets summarizing information managed in the MTNHP databases for: (1) species occurrences; (2) other observed species without species occurrences; (3) other species potentially present based on their range, presence of associated habitats, or predictive distribution model output if available; (4) structured surveys that follow a protocol capable of detecting one or more species; (5) land cover mapped as ecological systems; (6) wetland and riparian mapping; (7) land management categories; and (8) biological reports associated with plant and animal observations. If your area of interest corresponds to a statewide polygon layer (e.g., watersheds, counties, or public land survey sections) information summaries in your report will exactly match those boundaries. However, if your report is for a custom area, users should be aware that summaries do not correspond to the exact boundaries of the polygon they have specified, but instead are a summary across a layer of hexagons intersected by the polygon they specified as shown on the report cover. Summarizing by these hexagons which are one square mile in area and approximately one kilometer in length on each side allows for consistent and rapid delivery of summaries based on a uniform grid that has been used for planning efforts across North America.

In presenting this information, MTNHP is working towards assisting the user with rapidly assessing the known or potential species and biological communities, land management categories, and biological reports associated with the report area. Users are reminded that this information is likely incomplete and may be inaccurate as surveys to document species are lacking in many areas of the state, species' range polygons often include regions of unsuitable habitat, methods of predicting the presence of species or communities are constantly improving, and information is constantly being added and updated in our databases. **Field verification by professional biologists of the absence or presence of species and biological communities in a report area will always be an important obligation of users of our data. Users are encouraged to only use this environmental summary report as a starting point for more in depth analyses and are encouraged to contact state, federal, and tribal resource management agencies for additional data or management guidelines relevant to your efforts. Please see the Appendix for introductory materials to each section of the report, additional information resources, and a list of relevant agency contacts.**

Legend

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



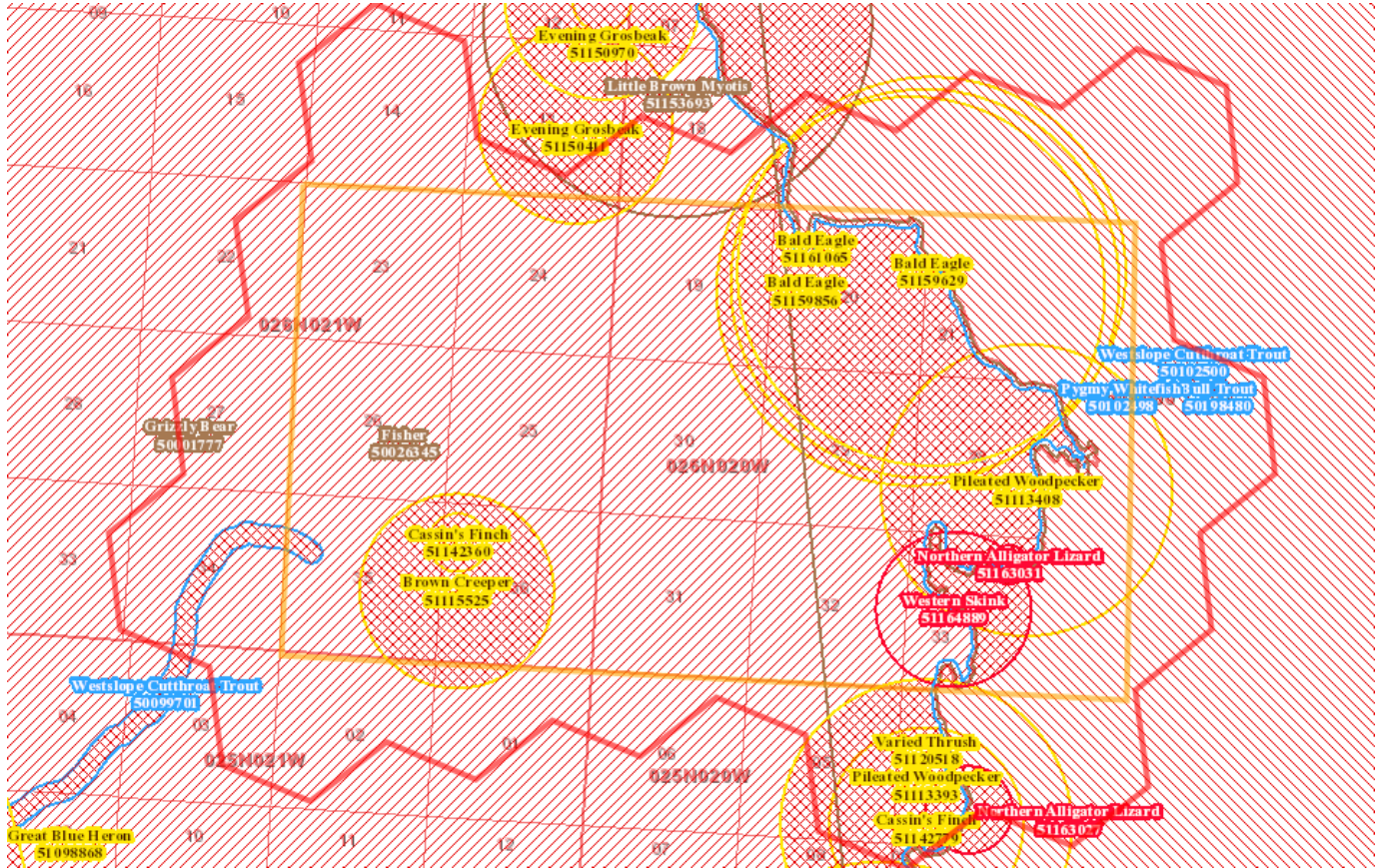
Latitude 47.94118 Longitude -114.14681
48.02763 -114.30054

Native Species

Summarized by: 24PRVT0118 - Lakeside (Custom Area of Interest)

Filtered by:

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



Species Occurrences


Species Name	USFWS	Sec7	# SO	# Obs	Predicted Model	Range
F - Westslope Cutthroat Trout (<i>Oncorhynchus clarkii lewisii</i>) SOC			2	+		
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: G5T4 State: S2</p> <p>USFS: Sensitive - Known in Forests (BD, BRT, KOOT, LOLO) BLM: SENSITIVE FWP SWAP: SGCN2</p> <p>Delineation Criteria Stream reaches and standing water bodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters, standing water bodies greater than 1 acre are buffered 50 meters, and standing water bodies less than 1 acre are buffered 30 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 25, 2022)</p> <p>Predicted Models: 50% Suitable (native range) (deductive)</p>						
F - Bull Trout (<i>Salvelinus confluentus</i>) SOC		7	1	+		
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S2 USFWS: LT; CH BLM: THREATENED FWP SWAP: SGCN2</p> <p>Delineation Criteria Stream reaches and standing water bodies where the species is believed to be present based on the professional judgement of a fisheries biologist, potentially supported by habitat assessment, direct capture, or confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters, standing water bodies greater than 1 acre are buffered 50 meters, and standing water bodies less than 1 acre are buffered 30 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 18, 2022)</p> <p>Predicted Models: 43% Suitable (native range) (deductive)</p>						
F - Pygmy Whitefish (<i>Prosopium coulterii</i>) SOC			1	1		
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGCN3, SGIN</p> <p>Delineation Criteria Standing water bodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, standing water bodies greater than 1 acre are buffered 50 meters, and standing water bodies less than 1 acre are buffered 30 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jul 26, 2022)</p> <p>Predicted Models: 43% Suitable (native range) (deductive)</p>						

B - Bald Eagle (<i>Haliaeetus leucocephalus</i>) SSS	4 40+ Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Special Status Species - Native Species Global: G5 State: S4 USFWS: BGEPA; MBTA USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE PIF: 2</p> <p>Delineation Criteria Confirmed nesting area buffered by a minimum distance of 2,000 meters in order to be conservative about encompassing the breeding territory and area commonly used for re-nesting. Only nesting observations with a locational uncertainty of 1,000 meters or less will be used to delineate a nesting area. (Last Updated: Sep 05, 2023)</p> <p>Predicted Models: 4% Optimal (inductive), 36% Moderate (inductive), 21% Low (inductive)</p>	
B - Cassin's Finch (<i>Haemorhous cassinii</i>) SOC	2 3+ Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA; BCC10 FWP SWAP: SGCN3 PIF: 3</p> <p>Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to be conservative about encompassing the courtship and foraging distance from nesting areas and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 30, 2023)</p> <p>Predicted Models: 79% Moderate (inductive), 21% Low (inductive)</p>	
B - Evening Grosbeak (<i>Coccothraustes vespertinus</i>) SOC	1 2+ Y W M
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA; BCC10 FWP SWAP: SGCN3</p> <p>Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 1,000 meters in order to encompass the maximum foraging distance from nests reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 30, 2023)</p> <p>Predicted Models: 79% Moderate (inductive), 21% Low (inductive)</p>	
B - Pileated Woodpecker (<i>Dryocopus pileatus</i>) SOC	2 2+ Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 PIF: 2</p> <p>Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 1,500 meters in order to be conservative about encompassing home ranges and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 28, 2023)</p> <p>Predicted Models: 75% Moderate (inductive), 25% Low (inductive)</p>	
R - Western Skink (<i>Plestiodon skiltonianus</i>) SOC	1 1 Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGCN3, SGIN</p> <p>Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 200 meters in order to encompass habitats supporting other individuals in adjacent territories. Otherwise the point observation is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 22, 2023)</p> <p>Predicted Models: 57% Moderate (inductive), 32% Low (inductive)</p>	
M - Little Brown Myotis (<i>Myotis lucifugus</i>) SOC	1 + Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G3G4 State: S3 USFS: Sensitive - Known in Forests (BD, BRT, KOOT) FWP SWAP: SGCN3</p> <p>Delineation Criteria Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, or definitively identified roosting individuals) of adults or juveniles. Point observation location is buffered by a distance of 1,600 meters in order to encompass the greater than 1,500 meters foraging distance reported for the species in New Brunswick, Canada and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. When cave locations are involved, point observations are mapped in the center of a one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations (U.S. Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance of 1,600 meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: Jul 06, 2023)</p> <p>Predicted Models: 36% Moderate (inductive), 39% Low (inductive)</p>	
B - Brown Creeper (<i>Certhia americana</i>) SOC	1 8+ Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 PIF: 1</p> <p>Delineation Criteria Observations with evidence of breeding activity buffered by a minimum distance of 300 meters in order to be conservative about encompassing home ranges and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 29, 2023)</p> <p>Predicted Models: 36% Moderate (inductive), 14% Low (inductive)</p>	
B - Varied Thrush (<i>Ixoreus naevius</i>) SOC	1 1 S M
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PIF: 3</p> <p>Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 225 meters in order to encompass the reported minimum stand size occupied by breeding pairs and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Jun 29, 2023)</p> <p>Predicted Models: 29% Moderate (inductive), 21% Low (inductive)</p>	
R - Northern Alligator Lizard (<i>Elgaria coerulea</i>) SOC	2 2 Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGCN3, SGIN</p> <p>Delineation Criteria Confirmed breeding area based on the presence of a resident animal of any age. Point observation location is buffered by a minimum distance of 200 meters in order to encompass habitats supporting other individuals and probable maximum home range sizes. Otherwise the point observation is buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters. (Last Updated: Sep 22, 2023)</p> <p>Predicted Models: 25% Moderate (inductive), 75% Low (inductive)</p>	
M - Fisher (<i>Pekania pennanti</i>) SOC	1 Y
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE FWP SWAP: SGCN3</p> <p>Delineation Criteria Confirmed area of occupancy based on the documented presence of adults or juveniles within tracking regions containing core habitat for the species. Outer boundaries of tracking regions are defined by areas of forest cover on individual mountain ranges or clusters of adjacent mountain ranges with continuous forest cover. (Last Updated: Dec 21, 2022)</p> <p>Predicted Models: 79% Low (inductive)</p>	

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

[Species of Concern - Native Species](#) Global: **G4** State: **S2S3** USFWS: **LT** BLM: **THREATENED** FWP SWAP: **SGCN2-3**

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

Predicted Models:  61% Low (inductive)

Legend

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



Latitude 47.94118
Longitude -114.14681
48.02763 -114.30054

Native Species

Summarized by: **24PRVT0118 - Lakeside (Custom Area of Interest)**

Filtered by:

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

Other Observed Species

Species	USFWS Sec7	# Obs	Predicted Model	Range
B - Rufous Hummingbird (<i>Selasphorus rufus</i>) PSOC		8 +		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4 State: S4B USFWS: MBTA; BCC10 PIF: 3 Predicted Models: 7% Optimal (inductive), 68% Moderate (inductive), 25% Low (inductive)				
B - Barrow's Goldeneye (<i>Bucephala islandica</i>) PSOC		1		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4 USFWS: MBTA FWP SWAP: SGIN PIF: 2 Predicted Models: 29% Moderate (inductive), 11% Low (inductive)				
B - Horned Grebe (<i>Podiceps auritus</i>) SOC		8		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models: 25% Moderate (inductive), 18% Low (inductive)				
B - American Goshawk (<i>Accipiter atricapillus</i>) SOC		2		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 PIF: 2 Predicted Models: 21% Moderate (inductive), 64% Low (inductive)				
B - Trumpeter Swan (<i>Cygnus buccinator</i>) SOC		2		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 1 Predicted Models: 21% Moderate (inductive), 18% Low (inductive)				
B - Clark's Nutcracker (<i>Nucifraga columbiana</i>) SOC		3		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA USFS: Species of Conservation Concern in Forests (FLAT) FWP SWAP: SGCN3 PIF: 3 Predicted Models: 11% Moderate (inductive), 75% Low (inductive)				
B - Hooded Merganser (<i>Lophodytes cucullatus</i>) PSOC		5		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4 USFWS: MBTA FWP SWAP: SGIN PIF: 2 Predicted Models: 11% Moderate (inductive), 36% Low (inductive)				
B - Lewis's Woodpecker (<i>Melanerpes lewis</i>) SOC		1		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S2B USFWS: MBTA; BCC10; BCC17 USFS: Species of Conservation Concern in Forests (HLC) BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 2 Predicted Models: 4% Moderate (inductive), 43% Low (inductive)				
B - Common Poorwill (<i>Phalaenoptilus nuttallii</i>) PSOC		1		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4B USFWS: MBTA FWP SWAP: SGIN PIF: 3 Predicted Models: 64% Low (inductive)				
B - Veery (<i>Catharus fuscescens</i>) SOC		1		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models: 57% Low (inductive)				
B - Great Blue Heron (<i>Ardea herodias</i>) SOC		1 +		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 Predicted Models: 54% Low (inductive)				
B - Golden Eagle (<i>Aquila chrysaetos</i>) SOC		1		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: BGEPA; MBTA BLM: SENSITIVE FWP SWAP: SGCN3 Predicted Models: 21% Low (inductive)				

B - Common Loon (*Gavia immer*) **SOC** 6 +

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

Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** USFS: **Sensitive - Known in Forests (LOLO)** FWP SWAP: **SGCN3** PIF: **1**

Predicted Models: 18% Low (inductive)

F - Lake Trout (*Salvelinus namaycush*) **SOC** +

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

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

Predicted Models: 32% Suitable (introduced range) (deductive)

I - Oxyloma nuttallianum (*Oblique Ambersnail*) **SOC** + Not Assessed

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

Species of Concern - Native Species Global: **G2G4** State: **S2**

Legend

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



Latitude 47.94118
Longitude -114.14681
48.02763 -114.30054

Native Species

Summarized by: **24PRVT0118 - Lakeside (Custom Area of Interest)**

Filtered by:

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

Other Potential Species

Species Name	USFWS Sec7	Predicted Model	Range
V - <i>Cypripedium parviflorum</i> (Small Yellow Lady's-slipper) PSOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>USFS: Sensitive - Known in Forests (KOOT, LOLO) Sensitive - Suspected in Forests (BRT) Species of Conservation Concern in Forests (CG, HLC)</p> <p>Potential Species of Concern - Native Species Global: G5 State: S3S4</p> <p>Predicted Models: 32% Optimal (inductive), 39% Moderate (inductive), 25% Low (inductive)</p>			
V - <i>Carex scoparia</i> (Pointed Broom Sedge) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S1S2 Plant Threat Score: No Known Threats</p> <p>Predicted Models: 29% Optimal (inductive), 71% Moderate (inductive)</p>			
B - Yellow-billed Cuckoo (<i>Coccyzus americanus</i>) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3B USFWS: PS: LT; MBTA BLM: THREATENED FWP SWAP: SGCN3, SGIN PIF: 2</p> <p>Predicted Models: 25% Optimal (inductive), 29% Moderate (inductive), 14% Low (inductive)</p>			
B - American Bittern (<i>Botaurus lentiginosus</i>) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 3</p> <p>Predicted Models: 21% Optimal (inductive), 18% Low (inductive)</p>			
B - Black Tern (<i>Chlidonias niger</i>) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G4G5 State: S3B USFWS: MBTA; BCC10; BCC11; BCC17 BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2</p> <p>Predicted Models: 18% Optimal (inductive), 11% Moderate (inductive), 11% Low (inductive)</p>			
V - <i>Dichanthelium acuminatum</i> (Panic Grass) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S2S3 Plant Threat Score: Unknown</p> <p>Predicted Models: 4% Optimal (inductive), 57% Moderate (inductive), 29% Low (inductive)</p>			
V - <i>Isoetes echinospora</i> (Spiny-spore Quillwort) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S3 Plant Threat Score: No Known Threats CCVI: Less Vulnerable</p> <p>Predicted Models: 4% Optimal (inductive), 21% Moderate (inductive), 14% Low (inductive)</p>			
V - <i>Utricularia intermedia</i> (Flatleaf Bladderwort) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: S2 USFS: Sensitive - Known in Forests (KOOT) Plant Threat Score: No Known Threats</p> <p>Predicted Models: 89% Moderate (inductive), 7% Low (inductive)</p>			
M - Long-legged Myotis (<i>Myotis volans</i>) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G4G5 State: S3</p> <p>Predicted Models: 86% Moderate (inductive), 14% Low (inductive)</p>			
V - <i>Mimulus floribundus</i> (Floriferous Monkeyflower) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G5 State: SH Plant Threat Score: No Known Threats CCVI: Highly Vulnerable</p> <p>Predicted Models: 71% Moderate (inductive), 29% Low (inductive)</p>			
I - <i>Bombus suckleyi</i> (Suckley Cuckoo Bumble Bee) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G2G3 State: S1</p> <p>Predicted Models: 64% Moderate (inductive), 29% Low (inductive)</p>			
M - Fringed Myotis (<i>Myotis thysanodes</i>) SOC			
<p>View in Field Guide View Predicted Models View Range Maps</p> <p>Species of Concern - Native Species Global: G4 State: S3 BLM: SENSITIVE FWP SWAP: SGCN3</p> <p>Predicted Models: 57% Moderate (inductive), 43% Low (inductive)</p>			

V - Mimulus breviflorus (<i>Short-flowered Monkeyflower</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S1S2 USFS: Sensitive - Known in Forests (KOOT) Plant Threat Score: Unknown CCVI: Moderately Vulnerable Predicted Models: 57% Moderate (inductive), 4% Low (inductive)		
M - Western Pygmy Shrew (<i>Sorex eximius</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 FWP SWAP: SGCN3 Predicted Models: 46% Moderate (inductive), 54% Low (inductive)		
M - Hoary Bat (<i>Lasiurus cinereus</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G3G4 State: S3B BLM: SENSITIVE FWP SWAP: SGCN3 Predicted Models: 46% Moderate (inductive), 54% Low (inductive)		
B - Western Screech-Owl (<i>Megascops kennicottii</i>) PSOC		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4G5 State: S3S4 USFWS: MBTA FWP SWAP: SGIN PIF: 3 Predicted Models: 39% Moderate (inductive), 61% Low (inductive)		
M - Townsend's Big-eared Bat (<i>Corynorhinus townsendii</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE FWP SWAP: SGCN3 Predicted Models: 39% Moderate (inductive), 54% Low (inductive)		
V - Botrychium simplex (<i>Least Moonwort</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S2 CCVI: Less Vulnerable Predicted Models: 39% Moderate (inductive), 46% Low (inductive)		
V - Eleocharis rostellata (<i>Beaked Spikerush</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFS: Species of Conservation Concern in Forests (CG, FLAT, HLC) Plant Threat Score: Unknown CCVI: Less Vulnerable Predicted Models: 39% Moderate (inductive), 18% Low (inductive)		
V - Dichanthelium oligosanthes var. scribnerianum (<i>Scribner's Panic Grass</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5T5 State: S1S2 Plant Threat Score: Low Predicted Models: 39% Moderate (inductive), 14% Low (inductive)		
B - Pacific Wren (<i>Troglodytes pacificus</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA FWP SWAP: SGCN3 PIF: 2 Predicted Models: 39% Moderate (inductive), 11% Low (inductive)		
M - Silver-haired Bat (<i>Lasionycteris noctivagans</i>) PSOC		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G3G4 State: S4 Predicted Models: 36% Moderate (inductive), 64% Low (inductive)		
V - Botrychium ascendens (<i>Upward-lobed Moonwort</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known in Forests (KOOT) CCVI: Less Vulnerable Predicted Models: 36% Moderate (inductive), 61% Low (inductive)		
B - Meesia triquetra (<i>Meesia Moss</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (BRT, KOOT) Species of Concern - Native Species Global: G5 State: S2 USFS: Sensitive - Suspected in Forests (LOLO) Species of Conservation Concern in Forests (CG, FLAT) Predicted Models: 36% Moderate (inductive), 39% Low (inductive)		
V - Botrychium crenulatum (<i>Wavy Moonwort</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (BD, KOOT, LOLO) Species of Concern - Native Species Global: G4 State: S3 USFS: Species of Conservation Concern in Forests (HLC) CCVI: Less Vulnerable Predicted Models: 32% Moderate (inductive), 64% Low (inductive)		
V - Schoenoplectus subterminalis (<i>Water Bulrush</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (KOOT, LOLO) Species of Concern - Native Species Global: G5 State: S3 USFS: Species of Conservation Concern in Forests (HLC) Plant Threat Score: Unknown Predicted Models: 32% Moderate (inductive), 11% Low (inductive)		
V - Lobelia kalmii (<i>Kalm's Lobelia</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 Plant Threat Score: No Known Threats Predicted Models: 29% Moderate (inductive), 36% Low (inductive)		

V - Botrychium lanceolatum (<i>Lanceleaf Moonwort</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 CCVI: Less Vulnerable Predicted Models: 25% Moderate (inductive), 61% Low (inductive)		
B - Caspian Tern (<i>Hydroprogne caspia</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S2B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN2 PIF: 2 Predicted Models: 25% Moderate (inductive), 14% Low (inductive)		
V - Epipactis gigantea (<i>Giant Helleborine</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (BD, LOLO) Sensitive - Suspected in Forests (BRT, KOOT) Species of Concern - Native Species Global: G4 State: S2S3 Species of Conservation Concern in Forests (FLAT, HLC) Plant Threat Score: Low CCVI: Moderately Vulnerable Predicted Models: 21% Moderate (inductive), 79% Low (inductive)		
V - Trichophorum cespitosum (<i>Tufted Club-rush</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (BD, KOOT) Species of Concern - Native Species Global: G5 State: S2 Species of Conservation Concern in Forests (FLAT) Plant Threat Score: No Known Threats CCVI: Moderately Vulnerable Predicted Models: 21% Moderate (inductive), 64% Low (inductive)		
V - Drosera rotundifolia (<i>Roundleaf Sundew</i>) PSOC		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S3S4 Plant Threat Score: Unknown Predicted Models: 21% Moderate (inductive), 57% Low (inductive)		
B - Black-backed Woodpecker (<i>Picoides arcticus</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 1 Predicted Models: 21% Moderate (inductive), 54% Low (inductive)		
V - Elodea bifoliata (<i>Long-sheath Waterweed</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4G5 State: S2? Plant Threat Score: No Known Threats Predicted Models: 21% Moderate (inductive), 14% Low (inductive)		
M - Long-eared Myotis (<i>Myotis evotis</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 Predicted Models: 18% Moderate (inductive), 82% Low (inductive)		
V - Eriophorum gracile (<i>Slender Cottongrass</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (KOOT) Species of Concern - Native Species Global: G5 State: S3 Species of Conservation Concern in Forests (FLAT) Plant Threat Score: Unknown CCVI: Moderately Vulnerable Predicted Models: 18% Moderate (inductive), 57% Low (inductive)		
B - Flammulated Owl (<i>Psiloscops flammeolus</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (LOLO) Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA; BCC10 Species of Conservation Concern in Forests (FLAT, HLC) BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 1 Predicted Models: 18% Moderate (inductive), 50% Low (inductive)		
V - Madia minima (<i>Small-headed Tarweed</i>) PSOC		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G4 State: S3S4 Predicted Models: 18% Moderate (inductive), 36% Low (inductive)		
B - Black-necked Stilt (<i>Himantopus mexicanus</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PIF: 3 Predicted Models: 18% Moderate (inductive), 18% Low (inductive)		
B - Great Gray Owl (<i>Strix nebulosa</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3, SGIN PIF: 3 Predicted Models: 14% Moderate (inductive), 75% Low (inductive)		
V - Botrychium pedunculosum (<i>Stalked Moonwort</i>) SOC		
View in Field Guide View Predicted Models View Range Maps USFS: Sensitive - Known in Forests (KOOT) Species of Concern - Native Species Global: G3G4 State: S2 Species of Conservation Concern in Forests (FLAT) CCVI: Less Vulnerable Predicted Models: 14% Moderate (inductive), 61% Low (inductive)		

I - *Rhyacophila betteni* (A Caddisfly) **SSS**

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

[Special Status Species - Native Species](#) Global: **G2G4** State: **S3S4**

Predicted Models: **M** 11% Moderate (inductive), **L** 64% Low (inductive)

V - *Botrychium montanum* (Mountain Moonwort) **PSOC**

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

[Potential Species of Concern - Native Species](#) Global: **G3G4** State: **S3S4**

Predicted Models: **M** 11% Moderate (inductive), **L** 61% Low (inductive)

V - *Carex chordorrhiza* (Creeping Sedge) **SOC**

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

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

[Species of Concern - Native Species](#) Global: **G5** State: **S3** **Species of Conservation Concern in Forests (FLAT)** Plant Threat Score: **No Known Threats**
CCVI: **Moderately Vulnerable**

Predicted Models: **M** 11% Moderate (inductive), **L** 29% Low (inductive)

B - Forster's Tern (*Sterna forsteri*) **SOC**

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

[Species of Concern - Native Species](#) Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN3** PIF: **2**

Predicted Models: **M** 11% Moderate (inductive), **L** 29% Low (inductive)

V - *Allium acuminatum* (Tapertip Onion) **SOC**

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

[Species of Concern - Native Species](#) Global: **G5** State: **S2S3** USFS: **Sensitive - Known in Forests (BD, BRT, LOLO)** Plant Threat Score: **High - Medium**
CCVI: **Moderately Vulnerable**

Predicted Models: **M** 11% Moderate (inductive), **L** 21% Low (inductive)

V - Idahoa scapigera (Scalepod) **SOC**

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

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

[Species of Concern - Native Species](#) Global: **G5** State: **S1S2** **Species of Conservation Concern in Forests (FLAT)** Plant Threat Score: **High - Medium**
CCVI: **Moderately Vulnerable**

Predicted Models: **M** 7% Moderate (inductive), **L** 82% Low (inductive)

V - *Geocalium lividum* (Northern Toadflax) **PSOC**

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

[Potential Species of Concern - Native Species](#) Global: **G5** State: **S3S4**

Predicted Models: **M** 7% Moderate (inductive), **L** 71% Low (inductive)

R - Snapping Turtle (*Chelydra serpentina*) **SOC**

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

[Species of Concern - Native/Non-native Species - \(depends on location or taxa\)](#) Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN3, SGIN**

Predicted Models: **M** 7% Moderate (inductive), **L** 43% Low (inductive)

M - North American Porcupine (*Erethizon dorsatum*) **PSOC**

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

[Potential Species of Concern - Native Species](#) Global: **G5** State: **S3S4** FWP SWAP: **SGIN**

Predicted Models: **M** 4% Moderate (inductive), **L** 96% Low (inductive)

B - Tennessee Warbler (*Leiothlypis peregrina*) **PSOC**

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

[Potential Species of Concern - Native Species](#) Global: **G5** State: **S3S4B** USFWS: **MBTA**

Predicted Models: **M** 4% Moderate (inductive), **L** 71% Low (inductive)

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

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

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

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

Predicted Models: **M** 4% Moderate (inductive), **L** 46% Low (inductive)

V - *Botrychium pinnatum* (Northern Moonwort) **SOC**

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

[Species of Concern - Native Species](#) Global: **G5** State: **S3** CCVI: **Less Vulnerable**

Predicted Models: **M** 4% Moderate (inductive), **L** 36% Low (inductive)

V - *Carex crawei* (Crawe's Sedge) **SOC**

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

[Species of Concern - Native Species](#) Global: **G5** State: **S2S3** Plant Threat Score: **Low**

Predicted Models: **M** 4% Moderate (inductive), **L** 21% Low (inductive)

I - *Danaus plexippus* (Monarch) **SOC**

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

[Species of Concern - Native Species](#) Global: **G4** State: **S2S3** USFWS: **C** USFS: **Sensitive - Migratory in Forests (BD, BRT, KOOT)**

Predicted Models: **M** 4% Moderate (inductive), **L** 21% Low (inductive)

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

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

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

Predicted Models: **L** 86% Low (inductive)

B - Scorpidium scorpioides (<i>A Scorpidium Moss</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S2 USFS: Sensitive - Known in Forests (KOOT, LOLO) Species of Conservation Concern in Forests (FLAT, HLC) Predicted Models: 68% Low (inductive)		
B - Ovenbird (<i>Seiurus aurocapilla</i>) PSOC		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S4B USFWS: MBTA PIF: 3 Predicted Models: 68% Low (inductive)		
V - Botrychium hesperium (<i>Western Moonwort</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known in Forests (BD, KOOT) CCVI: Less Vulnerable Predicted Models: 64% Low (inductive)		
V - Dryopteris cristata (<i>Crested Shieldfern</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFS: Sensitive - Known in Forests (BRT, KOOT, LOLO) Species of Conservation Concern in Forests (FLAT) Plant Threat Score: Low CCVI: Moderately Vulnerable Predicted Models: 64% Low (inductive)		
V - Cypripedium fasciculatum (<i>Clustered Lady's-slipper</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known in Forests (KOOT, LOLO) Species of Conservation Concern in Forests (FLAT) Plant Threat Score: Medium CCVI: Moderately Vulnerable Predicted Models: 61% Low (inductive)		
M - Canada Lynx (<i>Lynx canadensis</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 USFWS: LT; CH BLM: THREATENED FWP SWAP: SGCN3 Predicted Models: 57% Low (inductive)		
V - Psilocarphus brevisimus (<i>Dwarf woolly-heads</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S2S3 USFS: Sensitive - Known in Forests (KOOT) Plant Threat Score: No Known Threats Predicted Models: 57% Low (inductive)		
B - Black Swift (<i>Cypseloides niger</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S1B USFWS: MBTA; BCC10 USFS: Sensitive - Known in Forests (BRT, KOOT) Species of Conservation Concern in Forests (FLAT) FWP SWAP: SGCN1, SGIN PIF: 2 Predicted Models: 46% Low (inductive)		
B - Harlequin Duck (<i>Histrionicus histrionicus</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S2B USFWS: MBTA USFS: Sensitive - Known in Forests (BD, KOOT, LOLO) Sensitive - Migratory in Forests (BRT) FWP SWAP: SGCN2 PIF: 1 Predicted Models: 46% Low (inductive)		
B - Boreal Owl (<i>Aegolius funereus</i>) PSOC		
View in Field Guide View Predicted Models View Range Maps Potential Species of Concern - Native Species Global: G5 State: S3S4 USFWS: MBTA FWP SWAP: SGIN PIF: 3 Predicted Models: 43% Low (inductive)		
M - Yuma Myotis (<i>Myotis yumanensis</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3 FWP SWAP: SGIN Predicted Models: 39% Low (inductive)		
B - American White Pelican (<i>Pelecanus erythrorhynchos</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3B USFWS: MBTA FWP SWAP: SGCN3 PIF: 3 Predicted Models: 39% Low (inductive)		
B - Common Tern (<i>Sterna hirundo</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2 Predicted Models: 39% Low (inductive)		
M - Wolverine (<i>Gulo gulo</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G4 State: S3 USFS: Sensitive - Known in Forests (LOLO) BLM: SENSITIVE FWP SWAP: SGCN3 Predicted Models: 36% Low (inductive)		
V - Brasenia schreberi (<i>Watershield</i>) SOC		
View in Field Guide View Predicted Models View Range Maps Species of Concern - Native Species Global: G5 State: S1S2 USFS: Sensitive - Known in Forests (KOOT, LOLO) Plant Threat Score: Unknown CCVI: Less Vulnerable Predicted Models: 36% Low (inductive)		

A - Northern Leopard Frog (<i>Lithobates pipiens</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G5 State: S1,S4 USFS: Sensitive - Suspected in Forests (KOOT, LOLO) BLM: SENSITIVE FWP SWAP: SGCN1	Predicted Models: 36% Low (inductive)
V - Lycopodium inundatum (<i>Northern Bog Clubmoss</i>) SOC	View in Field Guide View Predicted Models View Range Maps	USFS: Sensitive - Suspected in Forests (KOOT) Species of Concern - Native Species Global: G5 State: S2 Species of Conservation Concern in Forests (FLAT) Plant Threat Score: Unknown CCVI: Highly Vulnerable	Predicted Models: 29% Low (inductive)
V - Mimulus ampliatus (<i>Stalk-leaved Monkeyflower</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G3 State: S3 USFS: Sensitive - Known in Forests (KOOT) Plant Threat Score: No Known Threats CCVI: Highly Vulnerable	Predicted Models: 29% Low (inductive)
V - Botrychium lineare (<i>Linearleaf Moonwort</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G3 State: S1S2 CCVI: Less Vulnerable	Predicted Models: 25% Low (inductive)
M - Preble's Shrew (<i>Sorex preblei</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G4 State: S3 FWP SWAP: SGCN3	Predicted Models: 21% Low (inductive)
V - Gaultheria ovatifolia (<i>Slender Wintergreen</i>) PSOC	View in Field Guide View Predicted Models View Range Maps	Potential Species of Concern - Native Species Global: G5 State: S3S4	Predicted Models: 21% Low (inductive)
V - Heteranthera dubia (<i>Water Star-grass</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G5 State: S1S2 Plant Threat Score: Unknown	Predicted Models: 21% Low (inductive)
V - Stellaria crassifolia (<i>Fleshy Stitchwort</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G5 State: S2 Plant Threat Score: No Known Threats	Predicted Models: 21% Low (inductive)
B - Long-billed Curlew (<i>Numenius americanus</i>) SOC	View in Field Guide View Predicted Models View Range Maps	Species of Concern - Native Species Global: G5 State: S3B USFWS: MBTA; BCC11 BLM: SENSITIVE FWP SWAP: SGCN3 PIF: 2	Predicted Models: 21% Low (inductive)
F - Brook Stickleback (<i>Culaea inconstans</i>) PSOC	View in Field Guide View Predicted Models View Range Maps	Potential Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: G5 State: S4	Predicted Models: 43% Suitable (introduced range) (deductive)
V - Silene spaldingii (<i>Spalding's Catchfly</i>) SOC	View in Field Guide View Range Maps	Species of Concern - Native Species Global: G2 State: S2 USFWS: LT Plant Threat Score: Very High CCVI: Extremely Vulnerable	Predicted Models: 7 Not Assessed

Structured Surveys

Summarized by: **24PRVT0118 - Lakeside** (*Custom Area of Interest*)

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

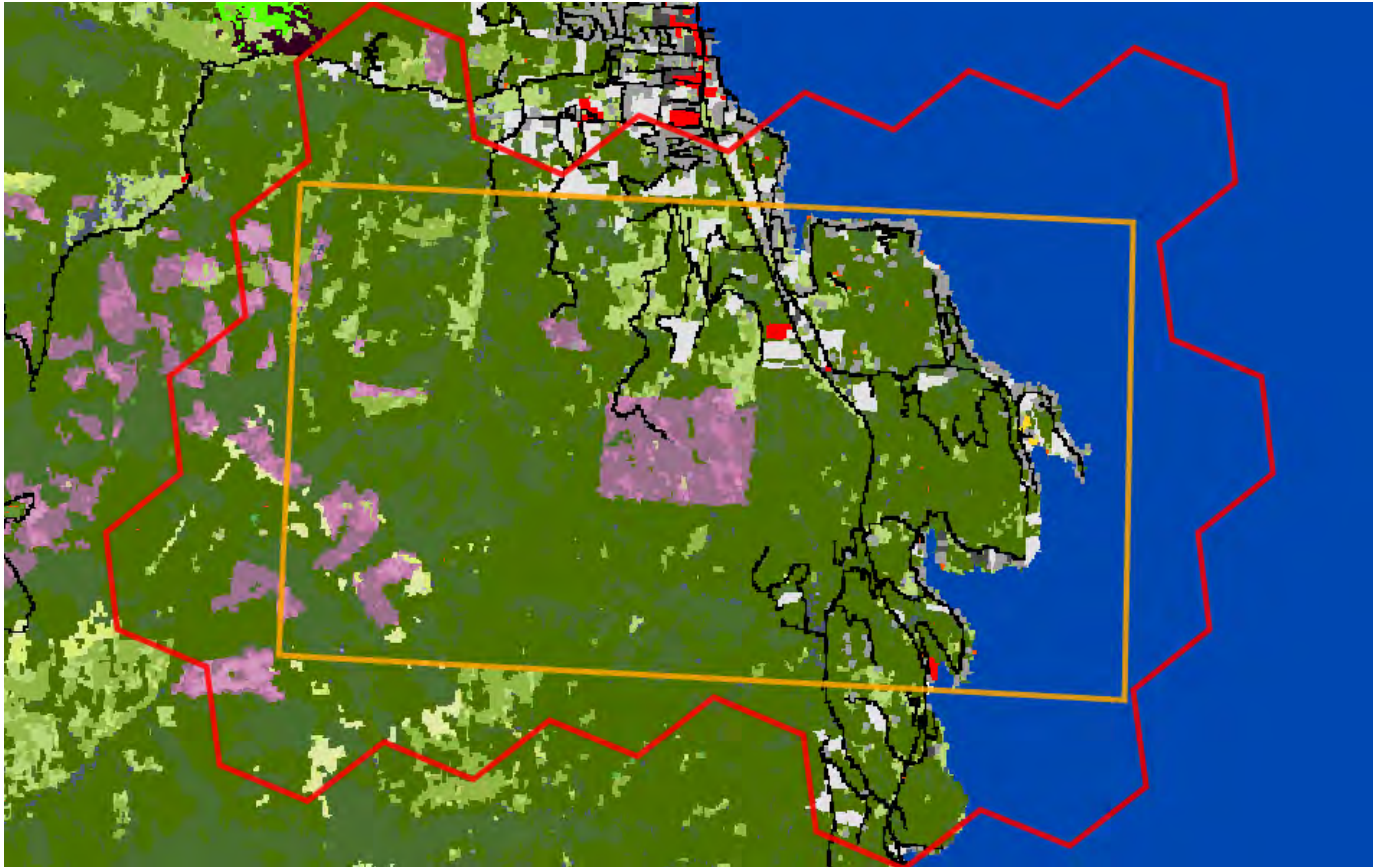
MTNHP does not typically manage information on structured surveys for plants; surveys for invasive species may be a future exception.

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

B-Bald Eagle Nest (<i>Bald Eagle Nest Survey</i>)	Survey Count: 19	Obs Count: 18	Recent Survey: 2010
B-Grid-based Point Count (<i>RMBO Generalized Random-tesselation Stratification</i>)	Survey Count: 30	Obs Count: 246	Recent Survey: 2017
B-Owl Banding (<i>ORI Owl Nest Survey and Banding</i>)	Survey Count: 4	Obs Count: 4	Recent Survey: 1994
B-Raptor nest (<i>Raptor Nest Survey</i>)	Survey Count: 2	Obs Count: 2	Recent Survey: 2008
E-Eurasian Water-milfoil Rake (<i>Rake tows/pulls for Eurasian Water-milfoil</i>)	Survey Count: 32	Obs Count: 27	Recent Survey: 2017
E-Invasive Mussel eDNA (<i>eDNA for Invasive Mussels</i>)	Survey Count: 12	Obs Count:	Recent Survey: 2018
E-Invasive Mussel Plankton Tow (<i>Plankton tows for veligers of Invasive Mussels</i>)	Survey Count: 95	Obs Count:	Recent Survey: 2022
E-Kicknet (<i>Kicknet Collection Survey for Invasive Mussels and Snails</i>)	Survey Count: 5	Obs Count:	Recent Survey: 2016
E-Noxious Weed, Road-based (<i>Noxious Weed Road-based Visual Surveys</i>)	Survey Count: 6	Obs Count: 39	Recent Survey: 2005
E-Visual Aquatic Invasives (<i>Visual Encounter Surveys for Aquatic Invasives on Shorelines or Underwater</i>)	Survey Count: 5	Obs Count:	Recent Survey: 2016
F-Fish Other Survey (<i>Fish Other Survey (FWP Survey Type)</i>)	Survey Count: 4	Obs Count: 5	Recent Survey: 1969
P-USFS ECODATA Plot (<i>USFS ECODATA Ecological Inventory Survey Plot</i>)	Survey Count: 3	Obs Count: 14	Recent Survey: 1994

Land Cover

Summarized by: **24PRVT0118 - Lakeside** (Custom Area of Interest)



40% (7,197 Acres)

Forest and Woodland Systems

Conifer-dominated forest and woodland (xeric-mesic)

Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest

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



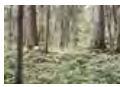
27% (4,831 Acres)

Wetland and Riparian Systems

Open Water

Open Water

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



Forest and Woodland Systems

Conifer-dominated forest and woodland (mesic-wet)

13% (2,367 Acres)

Rocky Mountain Mesic Montane Mixed Conifer Forest

These forests are generally dominated by western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), and grand fir (*Abies grandis*). They are found in areas influenced by incursions of mild, wet, Pacific maritime air masses west of the Continental Divide in Montana. Occurrences are found on all slopes and aspects but grow best on sites with high soil moisture, such as toeslopes and bottomlands. At the periphery of its distribution, this system is confined to moist canyons and cooler, moister aspects. Generally, these are moist, non-flooded or upland forest sites that are not saturated yearlong. In northwestern Montana, western hemlock and western red cedar forests occur on bottomland and northerly exposures between 609-1,585 meters (2,000-5,200 feet) on sites with an average annual precipitation of 635 millimeters (25 inches). These forests are common in extreme northwestern Montana, and extend eastward to the Continental Divide in the Lake McDonald drainage of Glacier National Park. Isolated stands of western hemlock occur in the Swan Valley, but are found most commonly in the Libby and Thompson Falls vicinities, west to the Idaho border. Western red cedar occurs extensively in the Mission Mountain ranges south to Missoula, and on lower flanks of the Swan Range north of Lion Creek. It is confined to the riparian zone of major streams on the east face of the Bitterroot Mountain Range. Grand fir, being less moisture dependent, occurs in more southerly and easterly sites than western red cedar and western hemlock. This system is similar to Rocky Mountain Dry-Mesic Mixed Montane Conifer Forest, which can be described as a seral phase of this system on appropriate sites west of the Continental Divide.

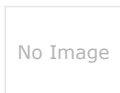


Recently Disturbed or Modified Harvested Forest

3% (580 Acres)

Harvested forest-tree regeneration

Land cover has been modified by logging. New growth is primarily trees.



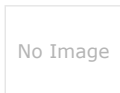
Human Land Use Developed

No Image

Other Roads

3% (553 Acres)

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



Shrubland, Steppe and Savanna Systems Deciduous Shrubland

No Image

Rocky Mountain Montane-Foothill Deciduous Shrubland

3% (550 Acres)

This system is found in the lower montane and foothill regions of western Montana, and north and east into the northern Rocky Mountains. These shrublands typically occur below treeline, within the matrix of surrounding low-elevation grasslands and sagebrush shrublands. They are usually found on steep slopes of canyons, on toeslopes and occasionally on valley bottom lands. These communities can occur on all aspects. In northwestern and west-central Montana, this system forms within Douglas-fir (*Pseudotsuga menziesii*) and ponderosa pine (*Pinus ponderosa*) forests and adjacent to fescue grasslands and big sagebrush (*Artemisia tridentata*) shrublands. In northwestern Montana, these shrublands commonly occur within the upper montane grasslands and forests along the Rocky Mountain Front. Immediately east of the Continental Divide, this system is found within montane grasslands and steep canyon slopes. Most sites have shallow soils that are either loess deposits or volcanic clays. Common ninebark (*Physocarpus malvaceus*), bittercherry (*Prunus emarginata*), common chokecherry (*Prunus virginiana*), rose (*Rosa* spp.), smooth sumac (*Rhus glabra*), Rocky Mountain maple (*Acer glabrum*), serviceberry (*Amelanchier alnifolia*), and oceanspray (*Holodiscus discolor*) are the most common dominant shrubs.



Grassland Systems Montane Grassland

No Image

Rocky Mountain Lower Montane, Foothill, and Valley Grassland

2% (377 Acres)

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



Human Land Use Developed

No Image

Developed, Open Space

2% (362 Acres)

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



Human Land Use Developed

No Image

Low Intensity Residential

2% (314 Acres)

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

Additional Limited Land Cover

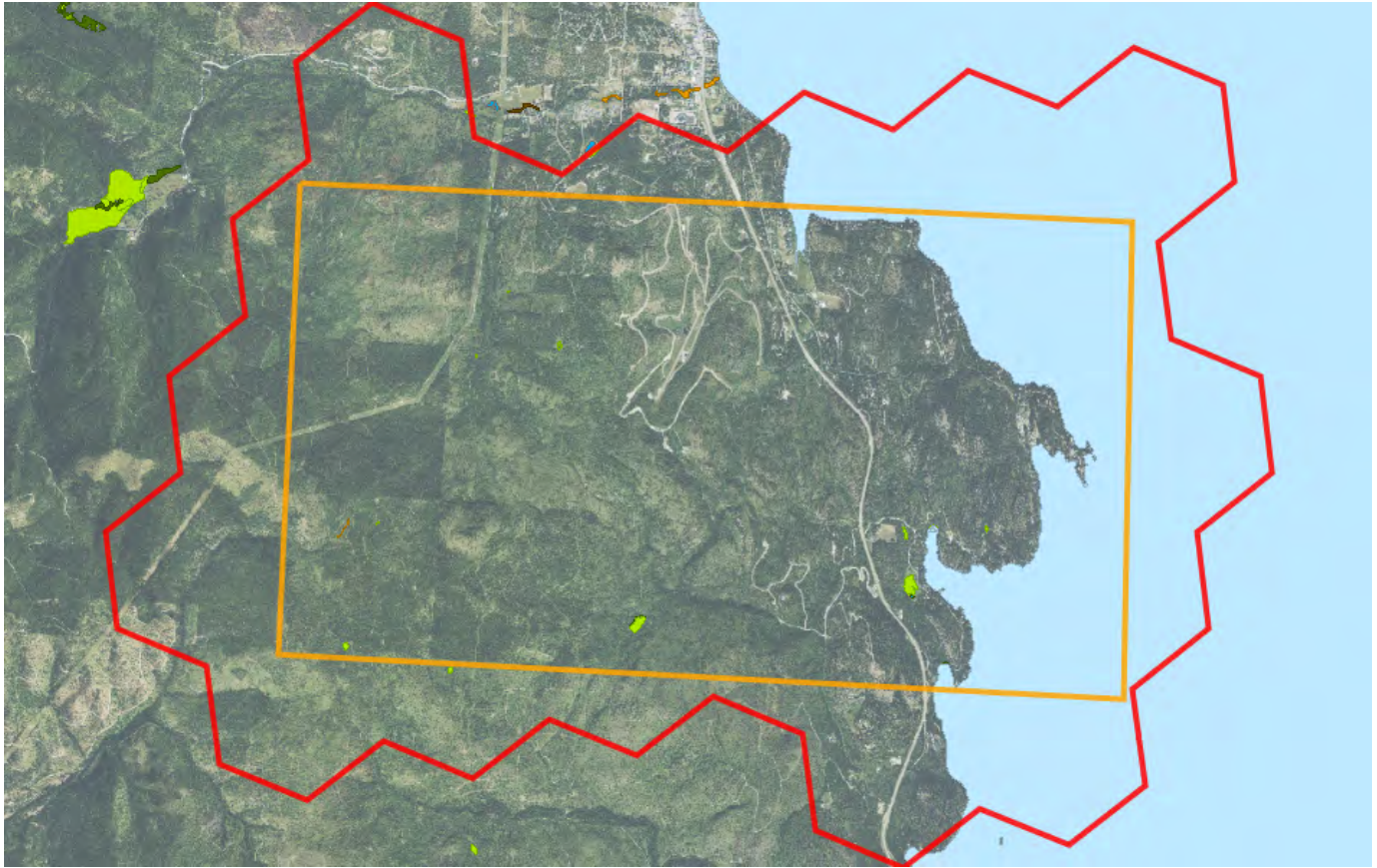
- 1% (251 Acres) ■ [Harvested forest-shrub regeneration](#)
- 1% (116 Acres) ■ [Rocky Mountain Subalpine Deciduous Shrubland](#)
- 1% (114 Acres) ■ [Harvested forest-grass regeneration](#)
- <1% (74 Acres) ■ [Major Roads](#)
- <1% (68 Acres) ■ [Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland](#)
- <1% (42 Acres) ■ [Rocky Mountain Subalpine-Montane Mesic Meadow](#)
- <1% (27 Acres) ■ [Rocky Mountain Ponderosa Pine Woodland and Savanna](#)

- <1% (20 Acres)  [Rocky Mountain Subalpine-Upper Montane Grassland](#)
- <1% (16 Acres)  [High Intensity Residential](#)
- <1% (14 Acres)  [Commercial / Industrial](#)
- <1% (8 Acres)  [Insect-Killed Forest](#)
- <1% (6 Acres)  [Rocky Mountain Cliff, Canyon and Massive Bedrock](#)
- <1% (5 Acres)  [Aspen and Mixed Conifer Forest](#)
- <1% (4 Acres)  [Rocky Mountain Lodgepole Pine Forest](#)
- <1% (4 Acres)  [Cultivated Crops](#)
- <1% (3 Acres)  [Alpine-Montane Wet Meadow](#)
- <1% (2 Acres)  [Emergent Marsh](#)
- <1% (0 Acres)  [Recently burned forest](#)



Wetland and Riparian

Summarized by: **24PRVT0118 - Lakeside** (*Custom Area of Interest*)



Wetland and Riparian Mapping

P - Palustrine

AB - Aquatic Bed		P - Palustrine, AB - Aquatic Bed <i>Wetlands with vegetation growing on or below the water surface for most of the growing season.</i>
F - Semipermanently Flooded	1 Acres	
(no modifier)	1 Acres PABF	
EM - Emergent		P - Palustrine, EM - Emergent <i>Wetlands with erect, rooted herbaceous vegetation present during most of the growing season.</i>
A - Temporarily Flooded	5 Acres	
(no modifier)	3 Acres PEMA	
x - Excavated	2 Acres PEMAx	
B - Saturated	6 Acres	
(no modifier)	6 Acres PEMB	
C - Seasonally Flooded	4 Acres	
(no modifier)	3 Acres PEMC	
h - Diked/Impounded	1 Acres PEMCh	
SS - Scrub-Shrub		P - Palustrine, SS - Scrub-Shrub <i>Wetlands dominated by woody vegetation less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.</i>
C - Seasonally Flooded	1 Acres	
(no modifier)	1 Acres PSSC	

L - Lacustrine (Lakes)

1 - Limnetic

UB - Unconsolidated Bottom		L - Lacustrine (Lakes), 1 - Limnetic, UB - Unconsolidated Bottom <i>Deep waterbodies with mud or silt covering at least 25% of the bottom.</i>
H - Permanently Flooded	4,825 Acres	
h - Diked/Impounded	4,825 Acres L1UBHh	

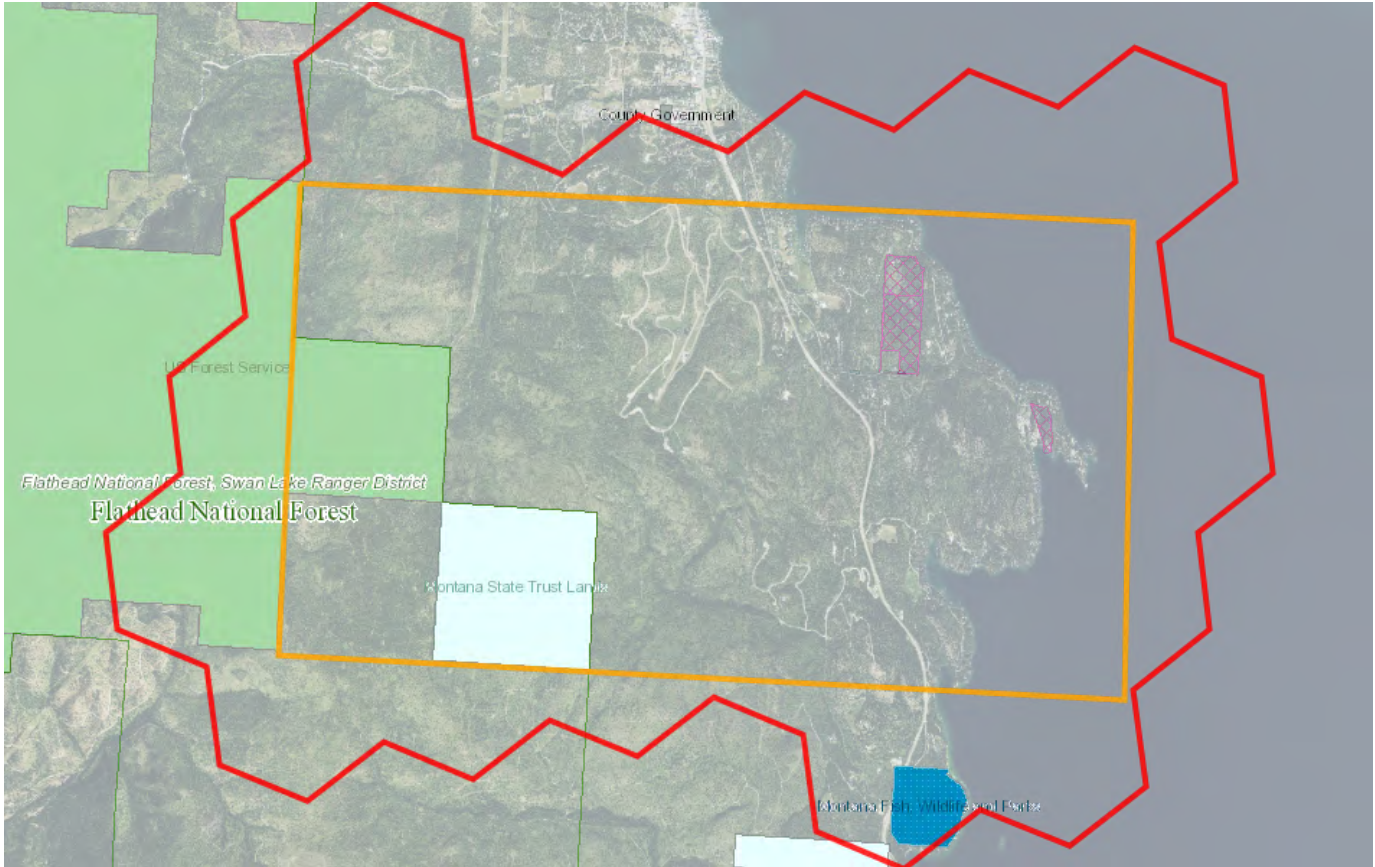
Rp - Riparian

1 - Lotic

SS - Scrub-Shrub		Rp - Riparian, 1 - Lotic, SS - Scrub-Shrub <i>This type of riparian area is dominated by woody vegetation that is less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.</i>
(no modifier)	1 Acres Rp1SS	

Land Management

Summarized by: **24PRVT0118 - Lakeside** (Custom Area of Interest)



Land Management Summary

	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
Public Lands	2,685 Acres (15%)			
Federal	1,898 Acres (11%)			
US Forest Service	1,898 Acres (11%)			
USFS Owned	1,898 Acres (11%)			
USFS Ranger Districts				4,335 Acres
Flathead National Forest, Swan Lake Ranger District				4,335 Acres
USFS National Forest Boundaries				4,335 Acres
Flathead National Forest				4,335 Acres
State	786 Acres (4%)			
Montana State Trust Lands	657 Acres (4%)			
MT State Trust Owned	657 Acres (4%)			
Montana Fish, Wildlife and Parks	129 Acres (1%)			
MTFWP Owned	129 Acres (1%)			
MTFWP State Parks				129 Acres
Flathead Lake/West Shore State Park				129 Acres
Local	1 Acres (<1%)			
Local Government	1 Acres (<1%)			
Local Government Owned	1 Acres (<1%)			
Conservation Easements			120 Acres (1%)	
Private			120 Acres (1%)	
Montana Land Reliance			81 Acres (<1%)	
The Nature Conservancy			39 Acres (<1%)	
Private Lands or Unknown Ownership	15,098 Acres (84%)			



Biological Reports

Summarized by: **24PRVT0118 - Lakeside** (*Custom Area of Interest*)

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

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

No Biological Reports were found in the selected area

Legend

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



Latitude 47.94118
Longitude -114.14681
48.02763 -114.30054

Invasive and Pest Species

Summarized by: **24PRVT0118 - Lakeside** (*Custom Area of Interest*)

	# Obs	Predicted Model	Range
Aquatic Invasive Species			
<input type="checkbox"/> V - Iris pseudacorus (<i>Yellowflag Iris</i>) N2A/AIS			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: GNR State: SNA Predicted Models: 32% Optimal (inductive), 14% Moderate (inductive), 21% Low (inductive)			
<input type="checkbox"/> V - Butomus umbellatus (<i>Flowering-rush</i>) N2A/AIS	4		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: G5 State: SNA Predicted Models: 11% Optimal (inductive), 11% Moderate (inductive), 18% Low (inductive)			
<input type="checkbox"/> V - Potamogeton crispus (<i>Curly-leaf Pondweed</i>) N2B/AIS	2		
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Aquatic Invasive Species - Non-native Species Global: G5 State: SNA Predicted Models: 50% Low (inductive)			
<input type="checkbox"/> V - Nymphaea odorata (<i>American Water-lily</i>) AIS			
View in Field Guide View Predicted Models View Range Maps Aquatic Invasive Species - Non-native Species Global: G5 State: SNA Predicted Models: 36% Suitable (introduced range) (deductive)			
Noxious Weeds: Priority 1A			
<input type="checkbox"/> V - Centaurea solstitialis (<i>Yellow Starthistle</i>) N1A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1A - Non-native Species Global: GNR State: SNA Predicted Models: 7% Optimal (inductive), 39% Moderate (inductive), 14% Low (inductive)			
<input type="checkbox"/> V - Isatis tinctoria (<i>Dyer's Woad</i>) N1A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1A - Non-native Species Global: GNR State: SNA Predicted Models: 11% Moderate (inductive), 54% Low (inductive)			
<input type="checkbox"/> V - Taeniatherum caput-medusae (<i>Medusahead</i>) N1A			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1A - Non-native Species Global: G4G5 State: SNA Predicted Models: 54% Low (inductive)			
Noxious Weeds: Priority 1B			
<input type="checkbox"/> V - Lythrum salicaria (<i>Purple Loosestrife</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: G5 State: SNA Predicted Models: 29% Optimal (inductive), 18% Moderate (inductive), 7% Low (inductive)			
<input type="checkbox"/> V - Polygonum cuspidatum (<i>Japanese Knotweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNRTR State: SNA Predicted Models: 11% Optimal (inductive), 21% Moderate (inductive), 64% Low (inductive)			
<input type="checkbox"/> V - Chondrilla juncea (<i>Rush Skeletonweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNR State: SNA Predicted Models: 32% Moderate (inductive), 68% Low (inductive)			
<input type="checkbox"/> V - Echium vulgare (<i>Blueweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNR State: SNA Predicted Models: 21% Moderate (inductive), 39% Low (inductive)			
<input type="checkbox"/> V - Polygonum x bohemicum (<i>Bohemian Knotweed</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNA State: SNA Predicted Models: 39% Low (inductive)			
<input type="checkbox"/> V - Cytisus scoparius (<i>Scotch Broom</i>) N1B			
View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 1B - Non-native Species Global: GNR State: SNA Predicted Models: 25% Low (inductive)			

Noxious Weeds: Priority 2A

<input type="checkbox"/>	V - Hieracium praealtum (<i>Kingdevil Hawkweed</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 54% Optimal (inductive), 43% Moderate (inductive), 3% Low (inductive)		
<input type="checkbox"/>	V - Hieracium aurantiacum (<i>Orange Hawkweed</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 32% Optimal (inductive), 46% Moderate (inductive), 21% Low (inductive)		
<input type="checkbox"/>	V - Iris pseudacorus (<i>Yellowflag Iris</i>) N2A/AIS		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: GNR State: SNA Predicted Models: 32% Optimal (inductive), 14% Moderate (inductive), 21% Low (inductive)		
<input type="checkbox"/>	V - Rhamnus cathartica (<i>Common Buckthorn</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 25% Optimal (inductive), 18% Moderate (inductive), 25% Low (inductive)		
<input type="checkbox"/>	V - Hieracium caespitosum (<i>Meadow Hawkweed</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 11% Optimal (inductive), 61% Moderate (inductive), 28% Low (inductive)		
<input type="checkbox"/>	V - Butomus umbellatus (<i>Flowering-rush</i>) N2A/AIS		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: G5 State: SNA Predicted Models: 11% Optimal (inductive), 11% Moderate (inductive), 18% Low (inductive)		
<input type="checkbox"/>	V - Ventenata dubia (<i>Ventenata</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 39% Moderate (inductive), 11% Low (inductive)		
<input type="checkbox"/>	V - Ranunculus acris (<i>Tall Buttercup</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: G5 State: SNA Predicted Models: 7% Moderate (inductive), 46% Low (inductive)		
<input type="checkbox"/>	V - Senecio jacobaea (<i>Tansy Ragwort</i>) N2A		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2A - Non-native Species Global: GNR State: SNA Predicted Models: 43% Low (inductive)		
Noxious Weeds: Priority 2B			
<input type="checkbox"/>	V - Hypericum perforatum (<i>Common St. John's-wort</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models: 18% Optimal (inductive), 79% Moderate (inductive), 3% Low (inductive)		
<input type="checkbox"/>	V - Leucanthemum vulgare (<i>Oxeye Daisy</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models: 7% Optimal (inductive), 64% Moderate (inductive), 29% Low (inductive)		
<input type="checkbox"/>	V - Tanacetum vulgare (<i>Common Tansy</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models: 4% Optimal (inductive), 46% Moderate (inductive), 50% Low (inductive)		
<input type="checkbox"/>	V - Centaurea stoebe (<i>Spotted Knapweed</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models: 79% Moderate (inductive), 21% Low (inductive)		
<input type="checkbox"/>	V - Cynoglossum officinale (<i>Common Hound's-tongue</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models: 64% Moderate (inductive), 36% Low (inductive)		
<input type="checkbox"/>	V - Linaria dalmatica (<i>Dalmatian Toadflax</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: G5 State: SNA Predicted Models: 57% Moderate (inductive), 14% Low (inductive)		
<input type="checkbox"/>	V - Potentilla recta (<i>Sulphur Cinquefoil</i>) N2B		
	View in Field Guide View Predicted Models View Range Maps Noxious Weed: Priority 2B - Non-native Species Global: GNR State: SNA Predicted Models: 54% Moderate (inductive), 46% Low (inductive)		

V - Centaurea diffusa (*Diffuse Knapweed*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **M** 11% Moderate (inductive), **L** 32% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **G5** State: **SNA**
Predicted Models: **M** 7% Moderate (inductive), **L** 89% Low (inductive)

V - Linaria vulgaris (*Yellow Toadflax*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **M** 7% Moderate (inductive), **L** 79% Low (inductive)

V - Acroptilon repens (*Russian Knapweed*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **M** 7% Moderate (inductive), **L** 32% Low (inductive)

V - Euphorbia virgata (*Leafy Spurge*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 64% Low (inductive)

V - Berteroa incana (*Hoary False-allyssum*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 57% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: **L** 50% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 36% Low (inductive)

V - Lepidium draba (*Whitetop*) **N2B**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 29% Low (inductive)

Regulated Weeds: Priority 3

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Regulated Weed: Priority 3 - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **M** 32% Moderate (inductive), **L** 68% Low (inductive)

Biocontrol Species

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **R** 25% Optimal (inductive), **M** 46% Moderate (inductive), **L** 29% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **M** 11% Moderate (inductive), **L** 39% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 61% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 46% Low (inductive)

I - Aphthona nigriscutis (*Black Dot Leafy Spurge Flea Beetle*) **BIOCNTRL**

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 29% Low (inductive)

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

[View in Field Guide](#) [View Predicted Models](#) [View Range Maps](#)
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: **L** 21% Low (inductive)

Introduction to Montana Natural Heritage Program



PO Box 201800 • 1201 11th Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • phone 406.444.3989 • mtnhp.org

INTRODUCTION

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

VISION

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

CORE VALUES

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

CONFIDENTIALITY

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

INFORMATION MANAGED

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

Data Use Terms and Conditions


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

Suggested Contacts for Natural Resource Management Agencies

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

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

Montana Fish, Wildlife, and Parks

Fish Species	Zachary Shattuck zshattuck@mt.gov (406) 444-1231 or Eric Roberts eroberts@mt.gov (406) 444-5334
American Bison Black-footed Ferret Black-tailed Prairie Dog Bald Eagle Golden Eagle Common Loon Least Tern Piping Plover Whooping Crane	Kristian Smucker KSmucker@mt.gov (406) 444-5209
Grizzly Bear Greater Sage Grouse Trumpeter Swan Big Game Upland Game Birds Furbearers	Brian Wakeling brian.wakeling@mt.gov (406) 444-3940
Managed Terrestrial Game Data	Cara Whalen– MFWP Data Analyst cara.whalen@mt.gov (406) 444-3759
Fisheries Data and Nongame Animal Data	Ryan Alger – MFWP Data Analyst ryan.alger@mt.gov (406) 444-5365
Wildlife and Fisheries Scientific Collector’s Permits	https://fwp.mt.gov/buyandapply/commercialwildlifeandscientificpermits/scientific Kristina Smucker for Wildlife ksmucker@mt.gov (406) 444-5209 Dave Schmetterling for Fisheries dschmetterling@mt.gov (406) 542-5514
Fish and Wildlife Recommendations for Subdivision Development	Charlie Sperry csperry@mt.gov (406) 444-3888 See https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations
Regional Contacts 	Region 1 (Kalispell) (406) 752-5501 fwprg12@mt.gov Region 2 (Missoula) (406) 542-5500 fwprg22@mt.gov Region 3 (Bozeman) (406) 577-7900 fwprg3@mt.gov Region 4 (Great Falls) (406) 454-5840 fwprg42@mt.gov Region 5 (Billings) (406) 247-2940 fwprg52@mt.gov Region 6 (Glasgow) (406) 228-3700 fwprg62@mt.gov Region 7 (Miles City) (406) 234-0900 fwprg72@mt.gov

Montana Department of Agriculture

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

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

Montana Department of Environmental Quality

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

Montana Department of Natural Resources and Conservation

Overview of, and contacts for, licenses and permits for state lands, water, and forested lands:

<https://dnrc.mt.gov/Permits-Services>

Stream Permitting (310 permits) and an overview of various water and stream related permits (e.g., Stream Protection Act 124, Federal Clean Water Act 404, Federal Rivers and Harbors Act Section 10, Short-term Water Quality Standard for Turbidity 318 Authorization, etc.).

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

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

Bureau of Land Management

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

United States Army Corps of Engineers

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

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

United States Environmental Protection Agency

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

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

United States Fish and Wildlife Service

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

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

United States Forest Service

Regional Office – Missoula, Montana Contacts			
Wildlife Program Leader	Tammy Fletcher	tammy.fletcher2@usda.gov	(406) 329-3086
Wildlife Ecologist	Cara Staab	cara.staab@usda.gov	(406) 329-3677
Aquatic Ecologist	Justin Jimenez	justin.jimenez@usda.gov	(435) 370-6830
TES Program	Lydia Allen	lydia.allen@usda.gov	(406) 329-3558
Interagency Grizzly Bear Coordinator	Scott Jackson	scott.jackson@usda.gov	(406) 329-3664
Regional Botanist	Amanda Hendrix	amanda.hendrix@usda.gov	(651) 447-3016
Regional Vegetation Ecologist	Mary Manning	marry.manning@usda.gov	(406) 329-3304
Invasive Species Program Manager	Michelle Cox	michelle.cox2@usda.gov	(406) 329-3669

Tribal Nations



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

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

[Blackfoot Tribe - Blackfoot Reservation](#)

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

[Crow Tribe – Crow Reservation](#)

[Little Shell Chippewa Tribe](#)

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

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

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

[Alberta Conservation Information Management System](#)

[British Columbia Conservation Data Centre](#)

[Idaho Natural Heritage Program](#)

[North Dakota Natural Heritage Program](#)

[Saskatchewan Conservation Data Centre](#)

[South Dakota Natural Heritage Program](#)

[Wyoming Natural Diversity Database](#)

Invasive Species Management Contacts and Information

Aquatic Invasive Species

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

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

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

[Upper Columbia Conservation Commission \(UC3\)](#)

Noxious Weeds

[Montana Weed Control Association Contacts Webpage](#)

[Montana Biological Weed Control Coordination Project](#)

[Montana Department of Agriculture - Noxious Weeds](#)

[Montana Weed Control Association](#)

[Montana Fish, Wildlife, and Parks - Noxious Weeds](#)

[Montana State University Integrated Pest Management Extension](#)

[Integrated Noxious Weed Management after Wildfires](#)

[Fire Management and Invasive Plants](#)

Introduction to Native Species

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

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

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

Observations

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

Species Occurrences

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

Plant Species Occurrences

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

Animal Species Occurrences

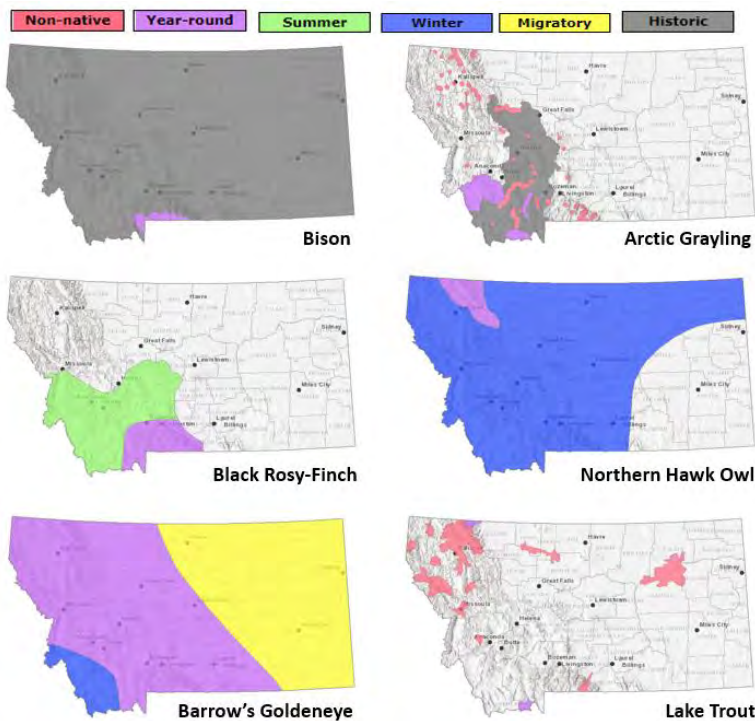
The location of a verified observation or specimen record typically known or assumed to represent a breeding population or a portion of a breeding population. Animal SO's are generally: (1) buffers of terrestrial point observations based on documented species' home range sizes; (2) buffers of stream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

Other Occurrence Polygons

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

Geographic Range Polygons

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



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

Predicted Suitable Habitat Models

Predicted habitat suitability models have been created for plant and animal Species of Concern and are undergoing development for non-Species of Concern. For species for which models have been completed, the environmental summary report includes simple rule-based associations with streams for aquatic species and seasonal habitats for game species as well as mathematically complex Maximum Entropy models (Phillips et al. 2006, *Ecological Modeling* 190:231-259) constructed from a variety of statewide biotic and abiotic layers and presence only data for individual species for most terrestrial species. For the Maximum Entropy models, we reclassified 90 x 90-meter continuous model output into suitability classes (unsuitable, low, moderate, and optimal) then aggregated that into the one square mile hexagons used in the environmental summary report; this is the finest spatial scale we suggest using this information in management decisions and survey planning. Full model write ups for individual species that discuss model goals, inputs, outputs, and evaluation in much greater detail are posted on the MTNHP's [Predicted Suitable Habitat Models](#) webpage. Evaluations of predictive accuracy and specific limitations are included with the metadata for models of individual species. **Model outputs should not be used in place of on-the-ground surveys for species. Instead model outputs should be used in conjunction with habitat evaluations to determine the need for on-the-ground surveys for species.** We suggest that the percentage of predicted optimal and moderate suitable habitat within the report area be used in conjunction with geographic range polygons and the percentage of commonly associated habitats to generate lists of potential species that may occupy broader landscapes for the purposes of landscape-level planning.

Associated Habitats

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

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

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

Introduction to Land Cover

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

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

Literature Cited

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

Introduction to Wetland and Riparian

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

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

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

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

Literature Cited

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

Introduction to Land Management

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

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

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

[Public Lands](#)

[Conservation Easements](#)

[Private Conservation Lands](#)

[Managed Areas](#)

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

Introduction to Invasive and Pest Species

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

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

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

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

Additional Information Resources

[MTNHP Staff Contact Information](#)

[Montana Field Guide](#)

[MTNHP Species of Concern Report - Animals and Plants](#)

[MTNHP Species Status Codes - Explanation](#)

[MTNHP Predicted Suitable Habitat Models](#) (for select Animals and Plants)

[MTNHP Request Information page](#)

[Montana Cadastral](#)

[Montana Code Annotated](#)

[Montana Fisheries Information System](#)

[Montana Fish, Wildlife, and Parks Subdivision Recommendations](#)

[Montana GIS Data Layers](#)

[Montana GIS Data Bundler](#)

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

[Montana Ground Water Information Center](#)

[Montana Index of Environmental Permits, 21st Edition \(2018\)](#)

[Montana Environmental Policy Act \(MEPA\)](#)

[Montana Environmental Policy Act Analysis Resource List](#)

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

[Montana Spatial Data Infrastructure Layers](#)

[Montana State Historic Preservation Office Review and Compliance](#)

[Montana Stream Permitting: a guide for conservation district supervisors and others](#)

[Montana Water Information System](#)

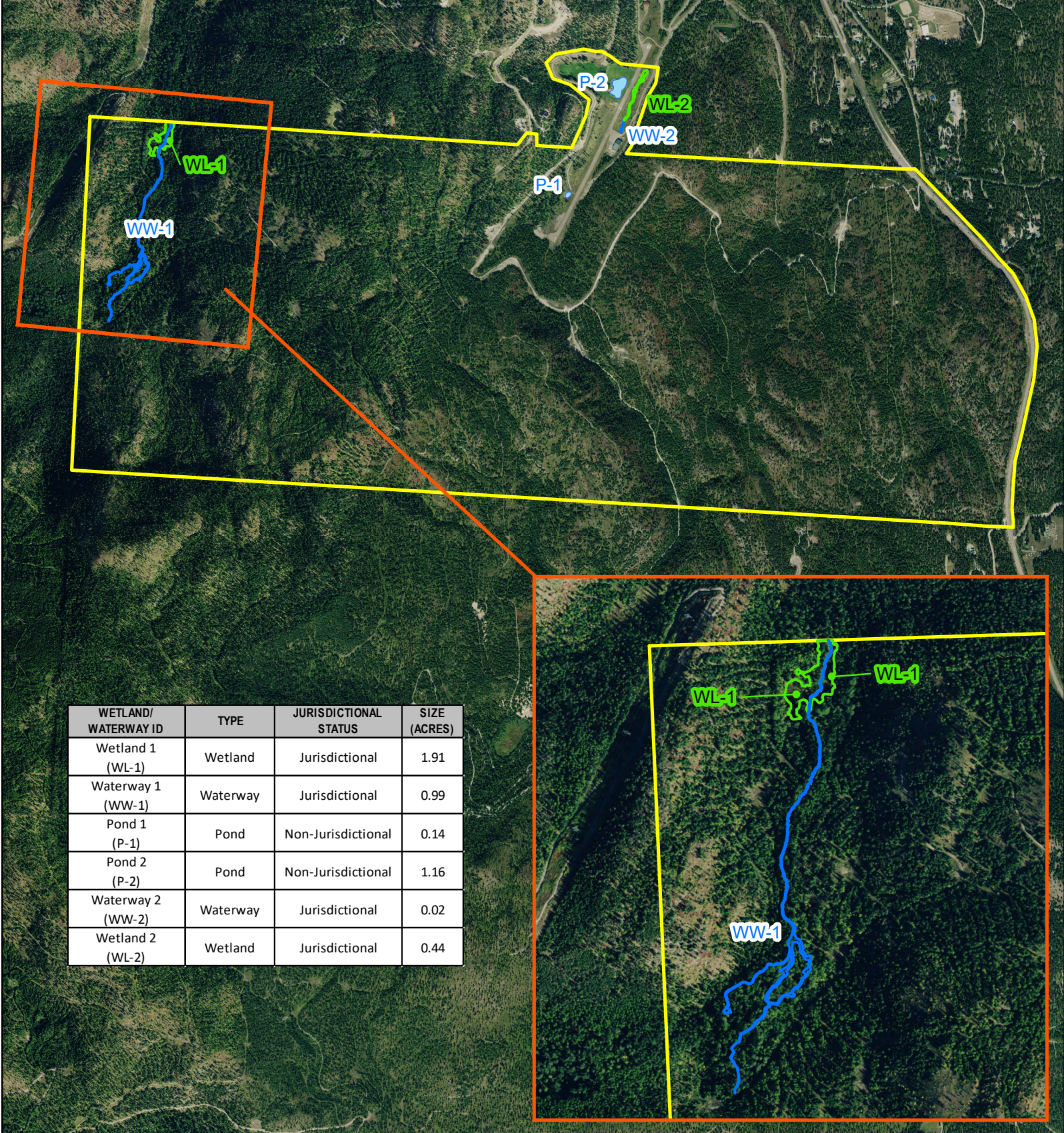
[Montana Web Map Services](#)

[National Environmental Policy Act](#)

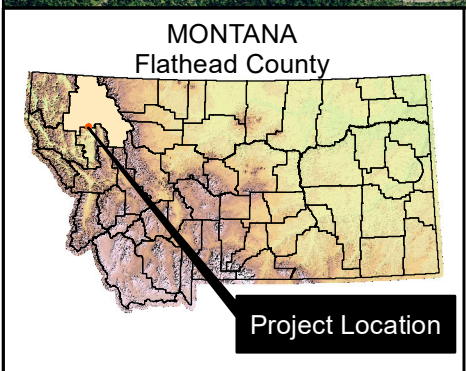
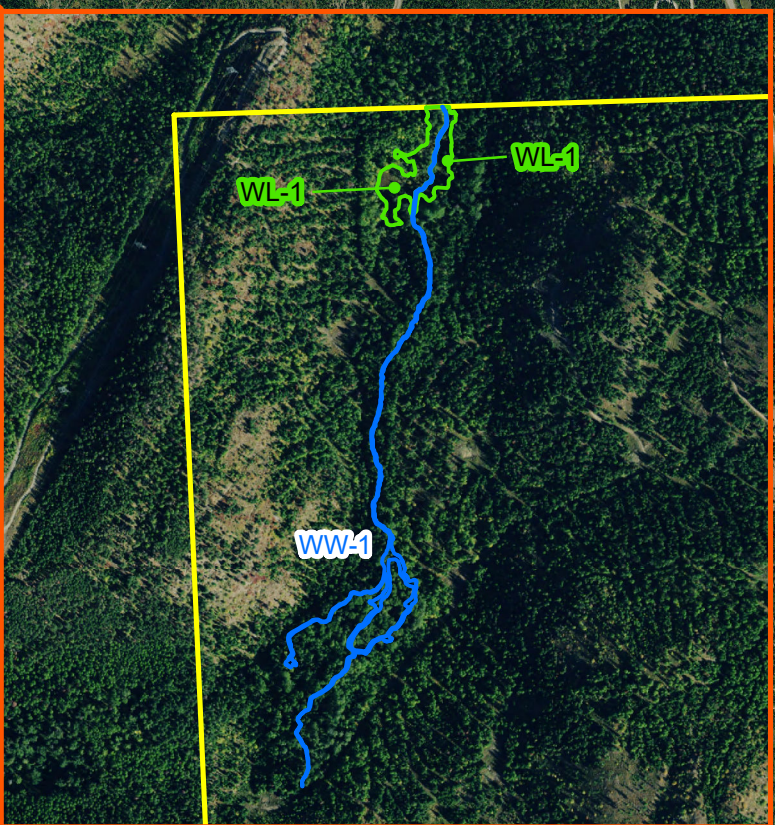
[Penalties for Misuse of Fish and Wildlife Location Data](#) (MCA 87-6-222)

[U.S. Fish and Wildlife Service Information for Planning and Consultation](#) (Section 7 Consultation)

[Web Soil Survey Tool](#)



WETLAND/ WATERWAY ID	TYPE	JURISDICTIONAL STATUS	SIZE (ACRES)
Wetland 1 (WL-1)	Wetland	Jurisdictional	1.91
Waterway 1 (WW-1)	Waterway	Jurisdictional	0.99
Pond 1 (P-1)	Pond	Non-Jurisdictional	0.14
Pond 2 (P-2)	Pond	Non-Jurisdictional	1.16
Waterway 2 (WW-2)	Waterway	Jurisdictional	0.02
Wetland 2 (WL-2)	Wetland	Jurisdictional	0.44



Legend

Lakeside Club Project Area

Aquatic Feature

Pond

Waterway

Wetland

Lakeside Club

Figure 1:
Prelim Aquatics Map

0 750 1,500 3,000
Feet

POWER ENGINEERS

MEMORANDUM

DATE: March 14, 2025

TO: Craig Schaeffer, PE, PLS (406 Engineering)

c: Jeremy Pfile (Improve One)

FROM: Brian Sandefur, Professional Wetland Scientist (POWER)

SUBJECT: Lakeside Club – Aquatic Resource Delineation

MESSAGE

INTRODUCTION

POWER Engineers, Inc. (POWER) conducted a desktop analysis and on-site field investigation to identify aquatic resources within an approximate 1,700-acre tract owned by TAL & PGL LLC and proposed for the development of the Lakeside Club commercial development (Project) in Lakeside, Montana. The purpose of this aquatic resource (wetland/waterway) investigation was to identify and delineate potential waters of the United States (WOTUS) that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act and potentially impacted by this Project. Below is a summary of the findings from the aquatic resource investigation and represents the professional opinion of POWER regarding the potential presence/absence of federally regulated wetlands and waterways within the Project area. It should be noted that the United States Army Corps of Engineers (USACE) Regulatory Branch – Omaha District maintains final decision-making authority regarding the jurisdictional status of all surface water features for projects located within its district boundaries and may require an on-site inspection.

ENVIRONMENTAL SETTING

The Project area is located directly west of United States Highway 93 (US-93) and Flathead Lake in Flathead County, Montana. The legal description of the Project area includes Section 25, Township 26 North, Range 21 West, and Sections 29 and 30, Township 26 North, Range 20 West. The Project area has been historically managed for timber production and improved access roads are located throughout the 1,700-acre site. The site is situated within the Natural Resources Conservation Service's (NRCS') Northern Rocky Mountains Major Land Resource Area (NRCS 2022) and primarily consists of multiple age-class mixed conifer forest among moderate to steeply sloping mountainous terrain within the Salish Mountains. Elevations range from approximately 3,100 to 4,555 feet above mean sea level with slopes draining in every cardinal direction from the Project area. Landcover, as identified by the Montana Natural Heritage Program (MNHP) landcover classification (MNHP 2018), includes aspen (*Populus tremuloides*) and mixed conifer forest, Northern Rocky Mountain lower montane riparian woodland and shrubland, montane-foothill deciduous shrubland, mesic and dry-mesic montane mixed conifer forest, lower montane foothill and valley grassland, harvested forest-tree regeneration, and developed open space along a private airfield located in the northern extent of the site.

DESKTOP REVIEW

A POWER biologist conducted a desktop analysis to identify surface water resources that could be present in the Project area and guide field efforts during the on-site field investigation. The following data sources were reviewed:

- United States Geological Survey (USGS) 7.5-minute (1:24,000 quadrangle) Topographic Maps: Lion Mountain and Kila (USGS 1994)
- Google Earth aerial imagery (Google Imagery 2023)
- USGS National Hydrography Dataset (NHD) mapper (USGS 2024)
- Ecological Mapping, Monitoring and Analysis Group –Montana Wetland and Riparian Framework (2022).
- NRCS Web Soil Survey (NRCS 2024)

The USGS topographic maps (Exhibit A, Figure 1) indicate the Project area as mountainous terrain situated near the northwest shore of Flathead Lake. Access roads are mapped throughout the site. These maps show six streams originating within the Project area. Three of the waterways are mapped as flowing through the southern boundary and eventually into Flathead Lake. The other three waterways flow through the northern boundary. Of the three north-flowing waterways, the easternmost waterway is mapped as flowing directly into Flathead Lake; the centermost waterway is illustrated as dissipating into uplands; and the westernmost tributary is shown as an unknown tributary (UT) that drains into Stoner Creek approximately 1.5 miles north of the Project area boundary and eventually into Flathead Lake. During the field investigation, this waterway (UT Stoner Creek/WW-1) and the centermost north-flowing waterway (WW-2) were the only waterway features identified within the Project area. No other aquatic features were shown on the topographic maps. An analysis of available aerial imagery (Exhibit A, Figure 2) shows the site as mostly forested. No waterways were identified on this imagery as the lower elevations of the drainages generally supported the highest density of forest vegetation. Two ponds were identified near the airport tarmac along northern boundary of the site. The NHD database (Exhibit A, Figure 3) corresponds with the USGS topographic map and shows six intermittent waterways along the major drainages within the Project area accounting for approximately 4.9 miles of stream channel. As noted above, only two of these waterways were confirmed during the field investigation. According to the MNHP Montana Spatial Data Infrastructure digital wetland mapping, approximately 11.73 acres of riverine habitat, 0.06 acre of freshwater pond, and 0.13 acre of freshwater emergent wetland were mapped within the site (Exhibit A, Figure 3). In general, the riverine habitat is associated with the NHD-mapped intermittent streams which, except for two waterways, did not exhibit an Ordinary High Water Mark (OHWM) or wetland hydrology within the Project area. Approximately 6.6% of the Project area has been mapped as hydric soil series by the NRCS and includes Foyslake gravelly silt loam containing approximately 2% Blackcreek component (Exhibit A, Figure 4). The Blackcreek series consist of very deep, poorly drained soils formed in alluvium, outwash, or lacustrine deposits and generally located on stream terraces and floodplains. Within the Project area, these hydric soils are mapped along moderately steep slopes that did not support any delineated aquatic features. Overall, the desktop analysis suggests aquatic resources are likely present in the Project area.

FIELD SURVEY

A POWER biologist conducted an on-site field investigation of the Project area in conjunction with a wildlife and environmental assessment on October 10, 11, and 12, 2023 to determine the presence of any potential WOTUS as defined by 33 Code of Federal Regulations 328 and amended final “Revised Definition of WOTUS.” The Routine Level 2 Determination Method, as

outlined in the 1987 USACE Wetlands Delineation Manual (Environmental Laboratory 1987) and subsequent methodologies outlined in the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010), were implemented to identify the presence and extent of wetlands within the Project area. The *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (USACE 2022) was used to identify and verify waterways within the Project area. All NHD-mapped waterways and National Wetlands Inventory-mapped wetland features were evaluated during the field investigation to identify the presence/absence of potential aquatic resources. The antecedent precipitation tool (APT; USACE 2020) was employed to compare recent rainfall conditions to normal rainfall conditions for the Project area. Based on the results of the APT (Exhibit B), the field investigation was conducted during “normal conditions” during the dry season with a moderate drought index. Results of the APT analysis for the centroid latitude and longitude of the Project area are provided in Exhibit B.

A total of two waterways, two wetlands, and two ponds were delineated within the Project area and account for approximately 5,263 linear feet of waterway (1.00-acre of OHWM), 1.93 acres of wetland habitat, and 1.30 acres of open waterbody. A summary of these features is provided in Table 1. A map representing the extent of aquatic resource boundaries surveyed during this investigation is provided in Exhibit A, Figure 5. Photographs of representative aquatic features are included in Exhibit C and completed USACE wetland determination data forms are provided in Exhibit D.

TABLE 1 SUMMARY DATA FOR DELINEATED AQUATIC FEATURES

WETLAND/ WATERWAY ID	TYPE	CLASSIFICATION ¹	SIZE (ACRES)	LENGTH (FEET)	JURISDICTIONAL STATUS ²	LOCATION (LAT/LONG)
Waterway 1 (WW-1)	Waterway	R4SBC	0.99	5,079	Jurisdictional	47.986250
						-114.253988
Wetland 1 (WL-1)	Wetland	PFO2E/PEM1E	1.91	NA	Jurisdictional	47.990683
						-114.252991
Pond 1 (P-1)	Pond	PABF	0.14	NA	Non- Jurisdictional	47.989395
						-114.227624
Pond 2 (P-2)	Pond	PABF	1.16	NA	Non- Jurisdictional	47.994005
						-114.224895
Waterway 2 (WW-2)	Waterway	R4SBC	0.02	184	Non- Jurisdictional	47.992426
						-114.224508
Wetland 2 (WL-2)	Wetland	PEM1E	0.44	NA	Non- Jurisdictional	47.994003
						-114.223715
Total			4.66	5,263	--	

Note: R4SBC = Riverine, Intermittent, Streambed, Seasonally Flooded; PABF = Palustrine, Aquatic Bed, Semipermanently Flooded; PFO2 = Palustrine, Forested, Needle-Leaved Evergreen, Semipermanently Flooded; PEM1E = Palustrine, Emergent, Persistent, Seasonally Flooded/Saturated.

¹Cowardin et al. 1979

²The determination of each wetland/waterway's jurisdictional or connected status represents POWER's professional opinion; the final determination of jurisdictional status is under the purview of the USACE.

WATERWAY 1 (WW-1)

Waterway WW-1 includes an unnamed tributary of Stoner Creek (UT Stoner Creek) that originates within the Project area. Three sub watersheds merge near the western boundary of the

site to form the head of this waterway. WW-1 begins as a groundwater trickle within a high gradient mountain channel largely formed by high-energy, short duration flows in response to precipitation runoff and generally consists of a series of pool/drop features with cobble and boulders controlling grade. At the time of the field survey, hydrology within WW-1 generally increased downgradient to support a perennial waterway and riparian wetland habitat prior to flowing through the northern boundary. Approximately 5,079 linear feet (0.99 acre OHWM) of WW-1 was surveyed within the Project area. Based on the direct surface water connection of WW-1 to Stoner Creek and eventually Flathead Lake, WW-1 was preliminarily determined to be jurisdictional.

WETLAND 1 (WL-1)

Wetland WL-1 is located directly along WW-1 at the northern boundary of the Project area and accounts for approximately 1.91 acre of palustrine forested and emergent wetland habitat. WL-1 is located along a lower-gradient reach of WW-1 and appears to receive hydrology from groundwater discharge and surface water directly from the waterway. The wetland hydrology indicators for WL-1 include high water table, saturation within 12 inches of the soil surface, water-stained leaves, geomorphic position, and a positive FAC-neutral test. Hydrophytic vegetation included broad-leaf cat-tail (*Typha latifolia*, OBL), bluejoint (*Calamagrostis canadensis*, FACW), yellow-skunk-cabbage (*Lysichiton americanus*, OBL), tall scouring-rush (*Equisetum hyemale*, FACW), arrow-leaf ragwort (*Senecio triangularis*, FACW), Canadian bunchberry (*Cornus canadensis*, FAC), speckled alder (*Alnus incana*, FACW), Englemann's spruce (*Picea engelmannii*, FAC), and western hemlock (*Tsuga heterophylla*, FAC). The hydrophytic vegetation indicators included a positive dominance test and prevalence index within the range indicating the presence of hydrophytic vegetation. Adjacent uplands were generally characterized by grand fir (*Abies grandis*, FACU), western larch (*Larix occidentalis*, FACU), Douglas-fir (*Pseudotsuga menziesii*, FACU), Oregon boxleaf (*Paxistima myrsinites*, FACU), thimbleberry (*Rubus parviflorus*, FACU), red baneberry (*Actaea rubra*, FACU), daffodil leopardbane (*Arnica latifolia*, FAC), and fragrant bedstraw (*Galium triflorum*, FACU). The hydric soil indicator for WL-1 included depleted matrix. WL-1 was preliminarily determined to be jurisdictional based on an observed direct hydrologic connection to WW-1 and eventually Flathead Lake.

WATERWAY 2 (WW-2)

Waterway WW-2 consist of a man-made, riprap storm drainage ditch that appears to receive intermittent hydrology from groundwater discharge just north of the airport hangar. This waterway flows into a constructed wetland swale (WL-2) likely created to manage stormwater flow around the airport. Approximately 184 linear feet of WW-2 was surveyed within the Project area prior to this waterway draining into WL-2 swale and losing channel characteristics. At the northern extent of the Project area, this aquatic resource flows subsurface through moderately steep terrain and loses surface water connection to any downstream WOTUS.

WETLAND 2 (WL-2)

Wetland WL-2 is located within an excavated swale adjacent to the airport runway and is hydrologically supported by surface water from WW-2 and additional groundwater discharge. The wetland hydrology indicators for WL-2 include high water table, saturation within 12 inches of the soil surface, oxidized rhizospheres along living roots, drainage patterns, saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. Hydrophytic vegetation included broad-leaf cat-tail, Northwest Territory sedge (*Carex utriculata*, OBL), American wild mint (*Mentha arvensis*, FACW), and lamp rush (*Juncus effusus*, FACW). The hydrophytic

vegetation indicators included a positive rapid test for hydrophytic vegetation, a positive dominance test, and prevalence index within the range indicating the presence of hydrophytic vegetation. Adjacent uplands included orchardgrass (*Dactylis glomerata*, FACU), smooth brome (*Bromus inermis*, UPL), Canada thistle (*Cirsium arvense*, FAC), great mullein (*Verbascum Thapsus*, FACU), common Timothy (*Phleum pratense*, FAC), and Engelmann's spruce. The hydric soil indicator for WL-2 included depleted matrix. An earthen embankment was constructed across this swale to provide stormwater impoundment with hydrology controlled by a culvert and standpipe. Below this embankment, hydrology from WW-2 and WL-2 flows under a paved road via culvert and surface water dissipates into steep, upland terrain. WL-2 was preliminarily determined to be non-jurisdictional based a lack of direct surface water connection to downstream WOTUS.

PONDS 1 AND 2 (P-1, P-2)

Two perennially inundated basins have been excavated along the airstrip and include an approximate 0.14-acre pond (P-1) and 1.16-acre pond (P-2). These open water features support algal and emergent vegetation and have been classified as palustrine aquatic bed. Surface hydrology is supported by a high groundwater table and periodic surface flow in response to snowmelt and precipitation. There were no streams flowing into or out of either pond feature, and both features were entirely surrounded by upland vegetation. Both ponds represent isolated aquatic features and have been preliminarily determined to be non-jurisdictional.

CONCLUSION

Based on the results of a desktop analysis and field investigation for the approximate 1,700-acre Project area, a total of two waterways, two wetlands, and two ponds were surveyed and account for approximately 5,263 linear feet of waterway (1.00 acre of OHWM), 1.93 acres of wetland habitat, and 1.30 acres of open waterbody. Both WW-1 and WL-1 were preliminarily determined to be jurisdictional based on a direct surface water connection to Stoner Creek and Flathead Lake. The remaining aquatic features delineated within the site were preliminarily determined to be non-jurisdictional based on a lack of observed surface water connection to downstream WOTUS. An Approved Jurisdictional Determination from the USACE is recommended prior to disturbing any features preliminarily determined to be non-jurisdictional. Any impacts to jurisdictional waters within the Project area may require authorization under Sections 404 and 401 of the Clean Water Act. Current regulations may require authorization of any impacts from the USACE, the Montana Department of Environmental Quality, and Flathead Conservation District.

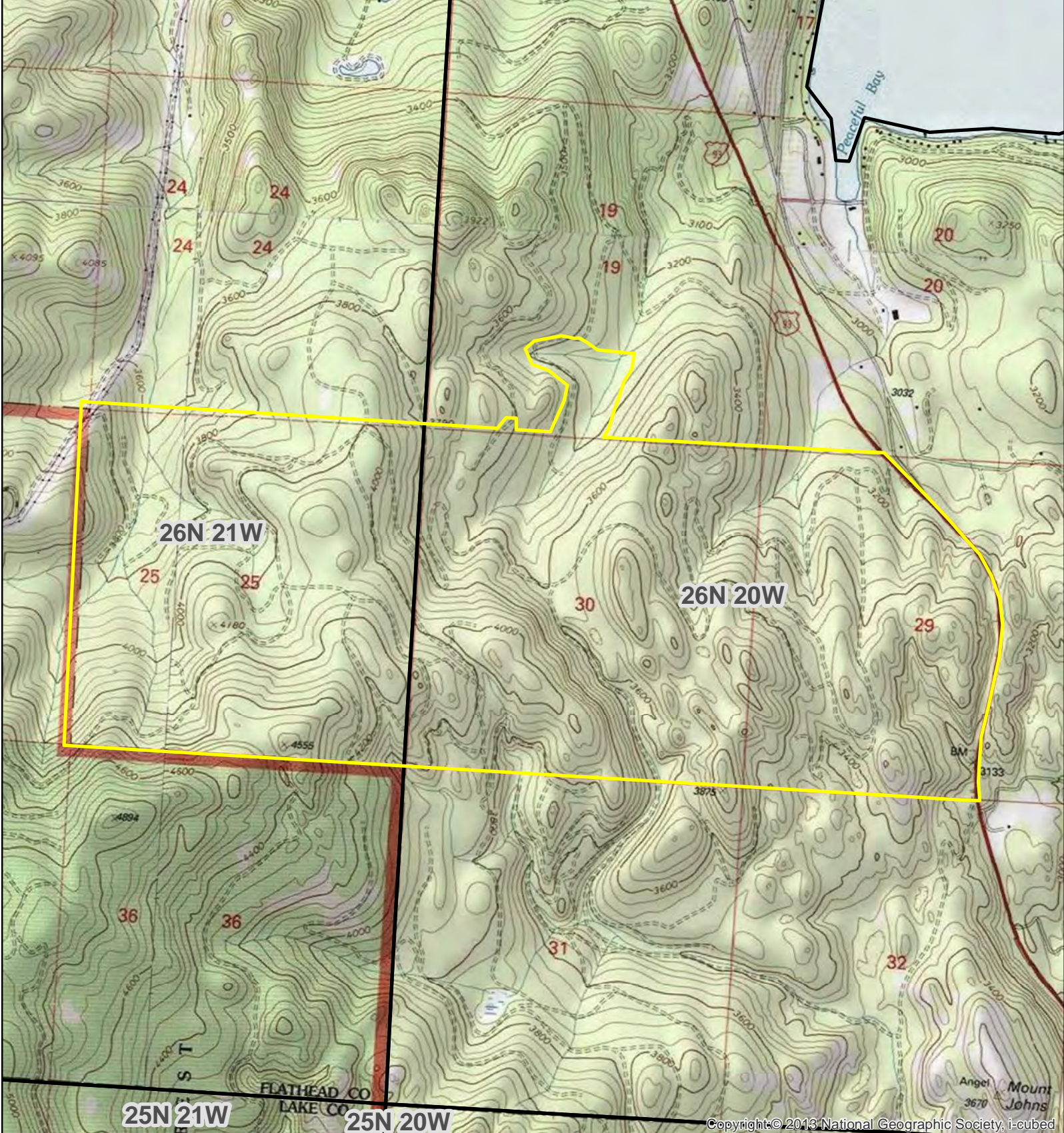
ENCLOSURES

- Exhibit A: Map Figures
- Exhibit B: Antecedent Precipitation Tool Results
- Exhibit C: Representative Project Photographs
- Exhibit D: USACE Wetland Determination Data Sheets

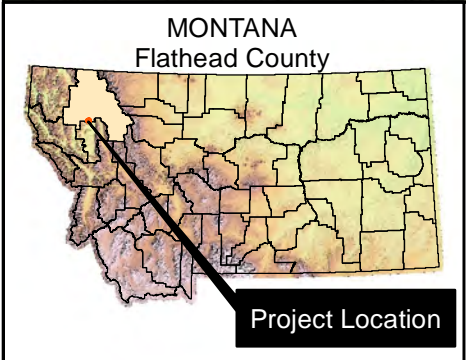
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EXHIBIT A PROJECT MAPS



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Legend

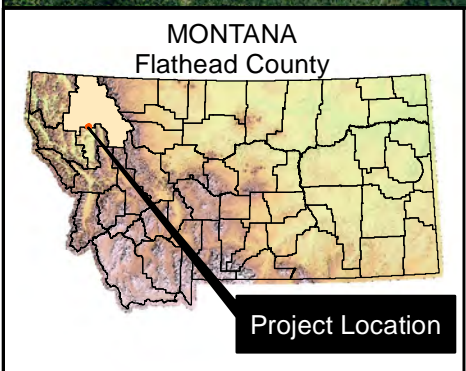
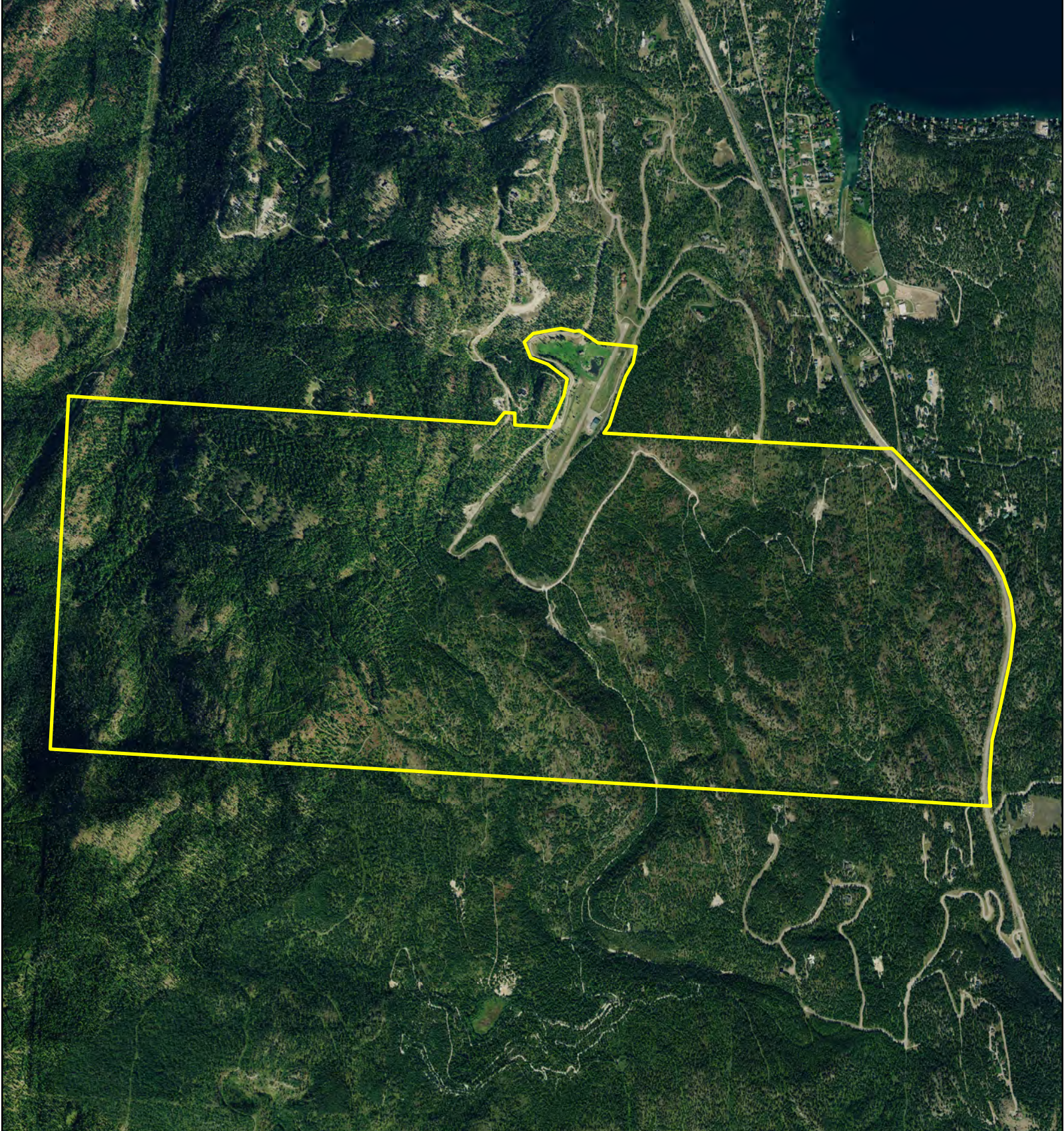
-  Lakeside Club Project Area
-  PLSS Township/Range

Lakeside Club


Figure 1:
Topographic/Vicinity Map

0 750 1,500 3,000
Feet




Legend

 Lakeside Club Project Area


Lakeside Club

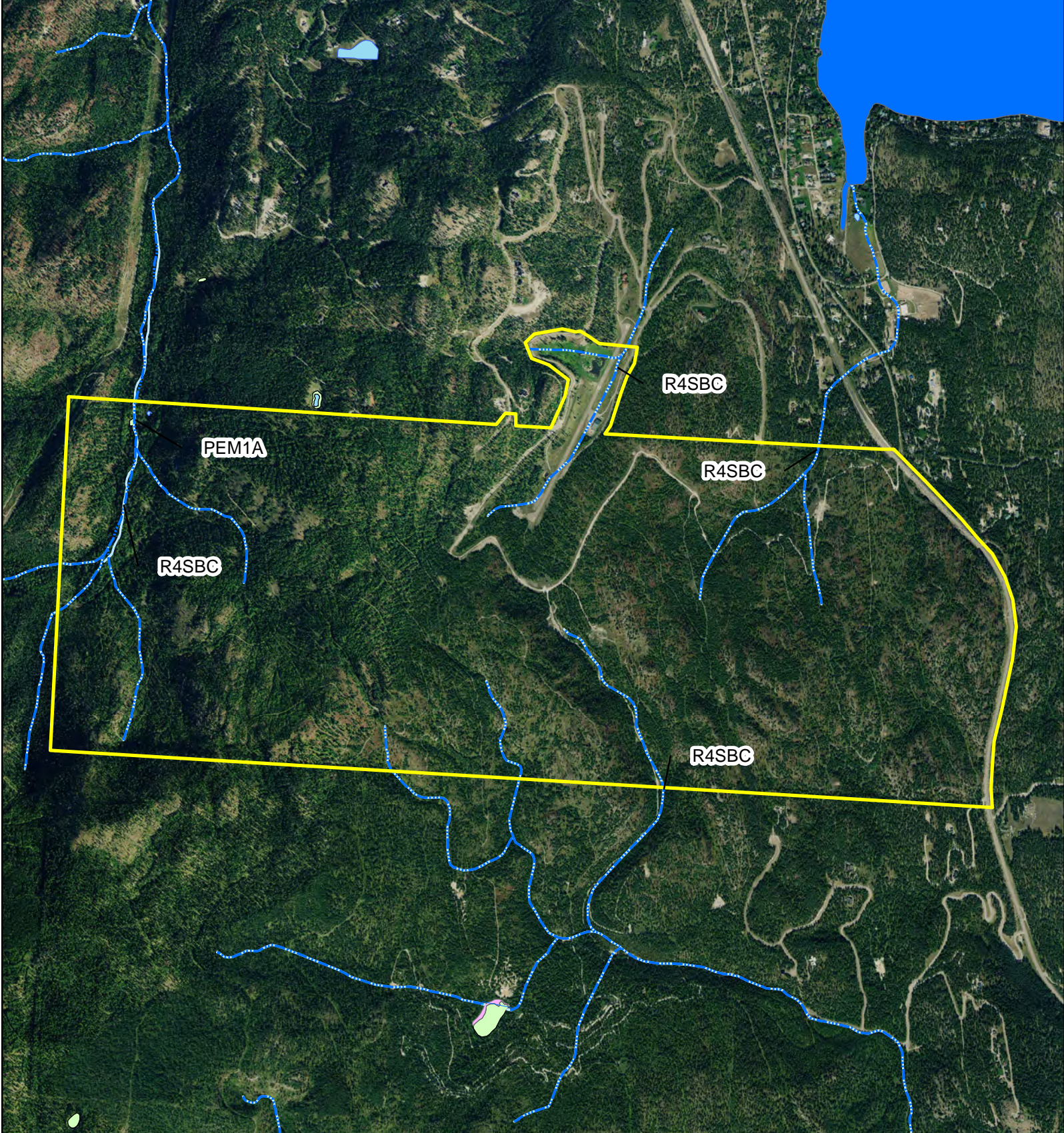
Figure 2:
2021 NAIP Map

0 750 1,500 3,000
Feet



POWER
ENGINEERS



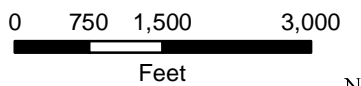


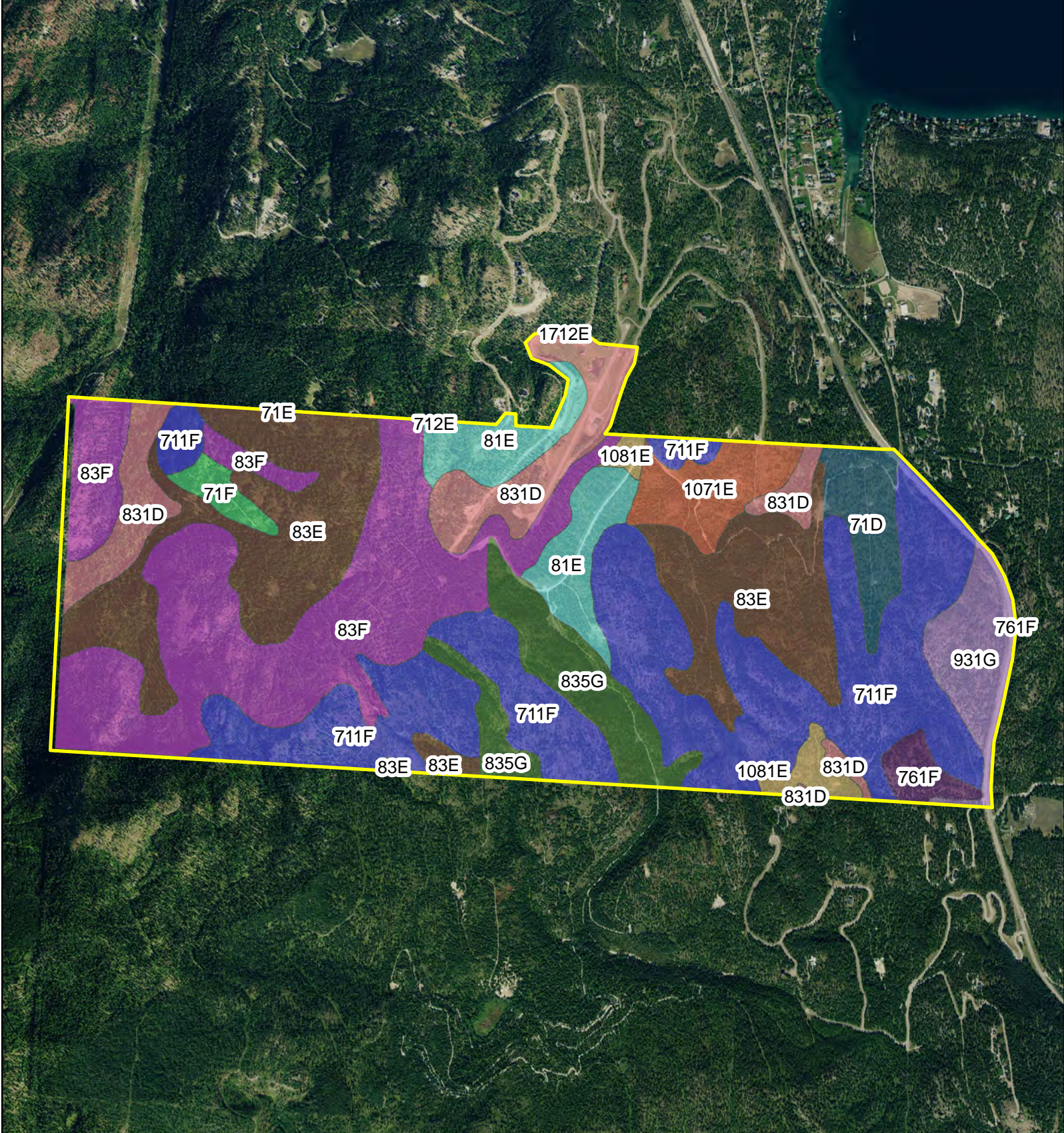
Legend

- | | |
|----------------------------|-----------------------------------|
| Lakeside Club Project Area | NWI Wetland Type |
| NHDFlowline | Freshwater Emergent Wetland |
| Intermittent Stream/River | Freshwater Forested/Shrub Wetland |
| Artificial Path | Freshwater Pond |
| | Lake |
| | Riverine |

Lakeside Club

Figure 3:
NHD/NWI Map



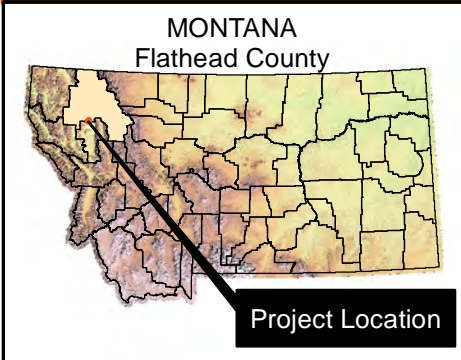
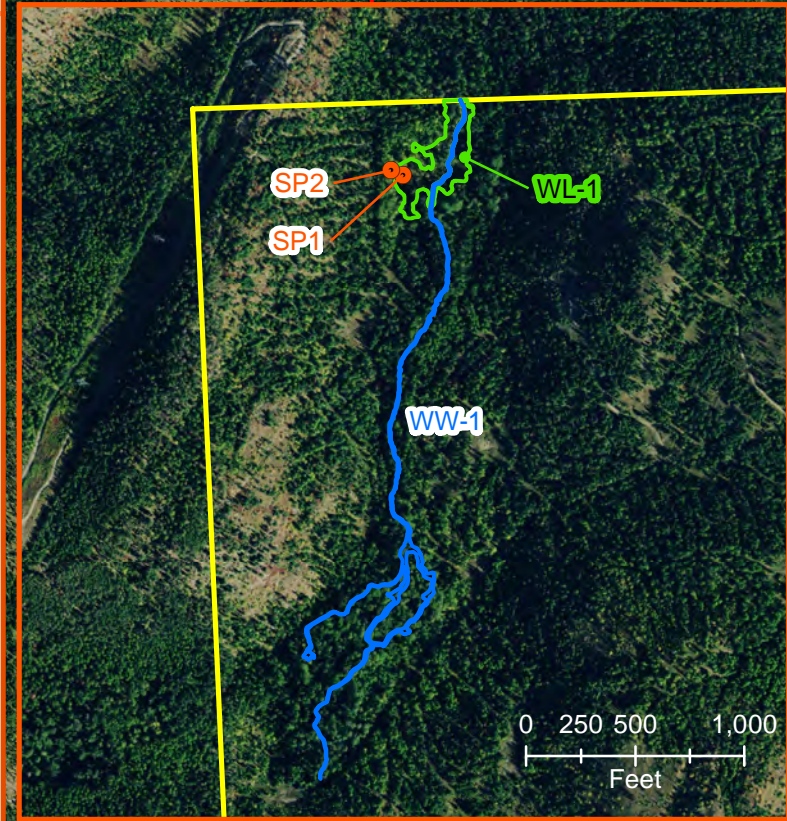
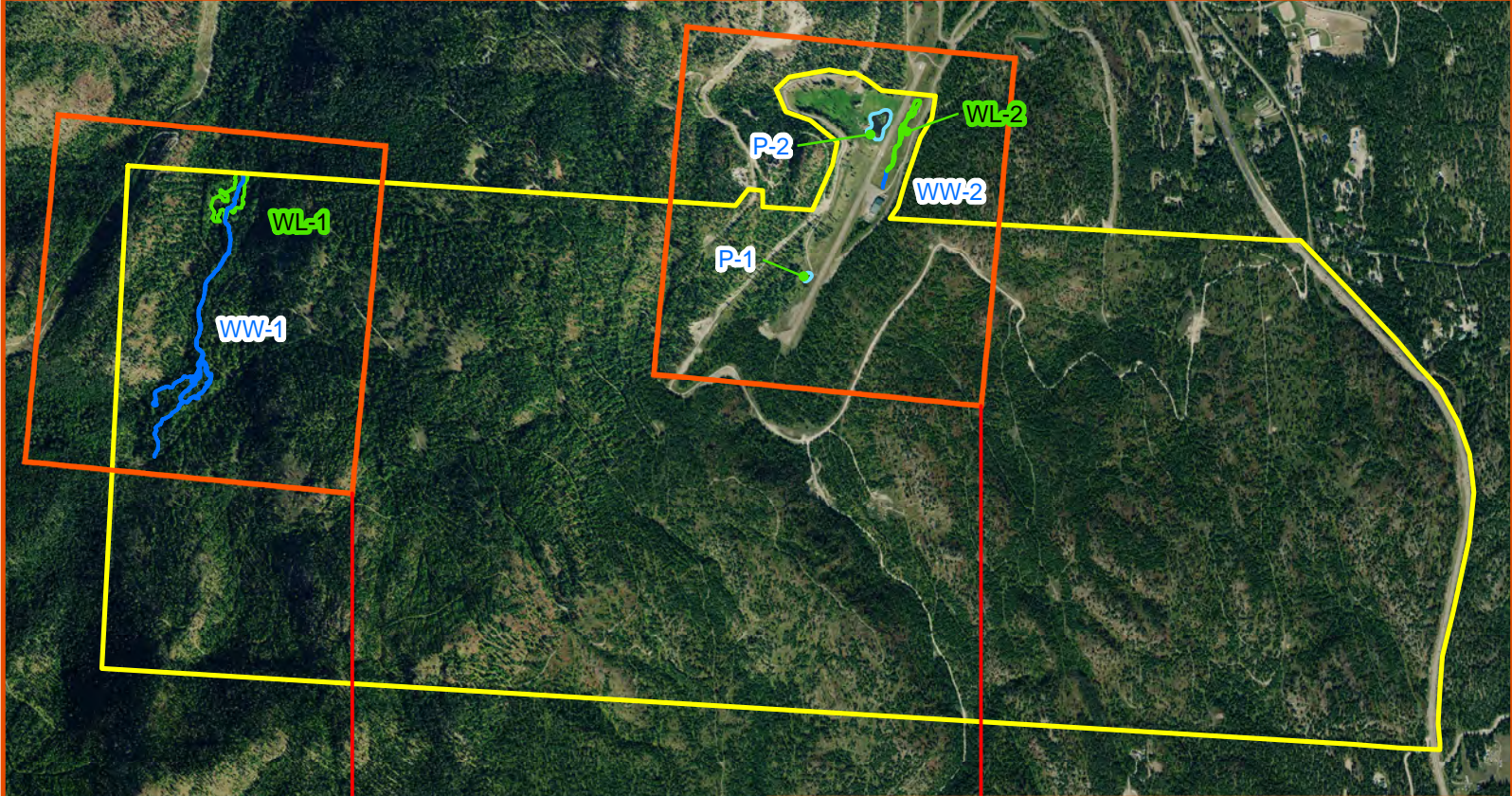


Legend	
	Lakeside Club Project Area
Label	
	1071E - Kingspoint gravelly silt loam, 15 to 30 percent slopes, lake effect
	1081E - Foyslake gravelly silt loam, 15 to 30 percent slopes, lake effect
	1712E - Kingspoint-Rock outcrop complex, 8 to 30 percent slopes, lake effect
	711F - Kingspoint-Rock outcrop-Sharrott complex, 15 to 50 percent slopes
	712E - Kingspoint-Rock outcrop complex, 8 to 30 percent slopes
	71D - Kingspoint gravelly silt loam, 4 to 15 percent slopes
	71E - Kingspoint gravelly silt loam, 15 to 30 percent slopes
	71F - Kingspoint gravelly silt loam, 30 to 50 percent slopes
	761F - Castner-Wimper-Rock outcrop complex, 15 to 50 percent slopes
	81E - Foyslake gravelly silt loam, 15 to 30 percent slopes
	831D - Ashleylake-Foyslake-Kila complex, 0 to 15 percent slopes
	835G - Ashleylake-Rock outcrop-Rockhill complex, 40 to 70 percent slopes
	83E - Ashleylake cobbly ashy silt loam, 8 to 30 percent slopes
	83F - Ashleylake-Rock outcrop complex, 30 to 50 percent slopes
	931G - Repp-Kingspoint-Rock outcrop complex, 40 to 80 percent slopes

Lakeside Club

**Figure 4:
NRCS Soils Map**

0 750 1,500 3,000
Feet



Legend

Lakeside Club Project Area

Aquatic Feature

Pond

Waterway

Wetland

Lakeside Club

Figure 5:
Surveyed Aquatics Map

0 750 1,500 3,000
Feet



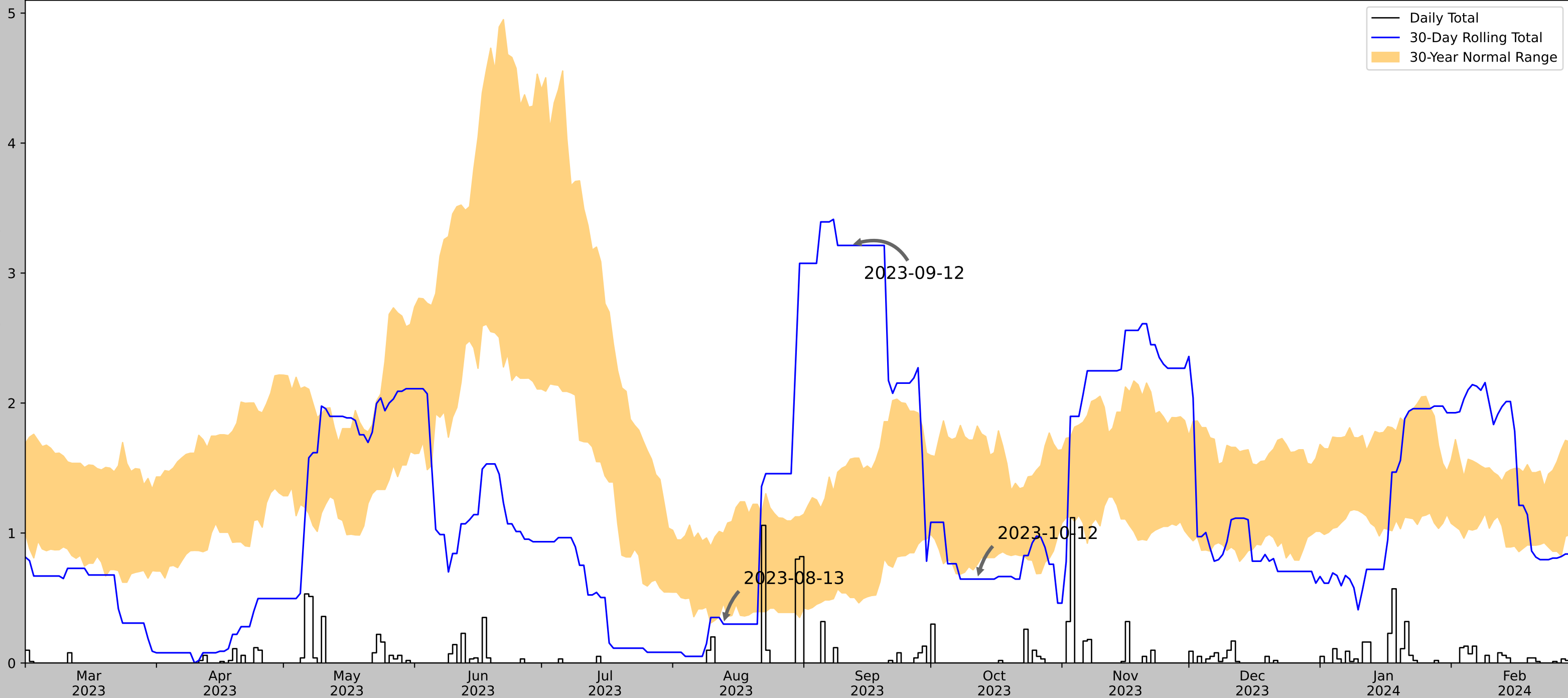
 

EXHIBIT B ANTECEDENT PRECIPITATION TOOL RESULTS

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	47.985094, -114.228174
Observation Date	2023-10-12
Elevation (ft)	3621.712
Drought Index (PDSI)	Moderate drought
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-10-12	0.759055	1.822835	0.645669	Dry	1	3	3
2023-09-12	0.503937	1.568504	3.212599	Wet	3	2	6
2023-08-13	0.461024	0.998425	0.299213	Dry	1	1	1
Result							Normal Conditions - 10



Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CRESTON	48.1881, -114.1339	2935.039	14.686	686.673	16.693	11207	90
COLUMBIA FALLS 7.7 S	48.2619, -114.1556	3058.071	5.196	123.032	2.977	52	0
KALISPELL	48.1892, -114.3114	2939.961	8.177	4.922	3.72	8	0
EVERGREEN 14.7 SE	48.061, -114.0727	2928.15	9.224	6.889	4.214	7	0
KALISPELL GLACIER AP	48.3042, -114.2642	2962.927	10.015	27.888	4.786	78	0

EXHIBIT C PROJECT PHOTOGRAPHS



Photo 1: View west at SP1, wetland data point within WL-1.



Photo 2: View west at SP2, upland data point.



Photo 3: View south along WW-1 (UT Stoner Creek).



Photo 4: View north at WW-2.



Photo 5: View north at WL-2 (SP3/SP4).



Photo 6: View south at P-1.



Photo 7: View northeast at P-2.

**EXHIBIT D USACE WETLAND DETERMINATION DATA
SHEETS**

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Lakeside Club City/County: Lakeside, Flathead Co. Sampling Date: 10/11/2023
 Applicant/Owner: Improve One State: MT Sampling Point: SP1
 Investigator(s): Brian Sandefur, PWS Section, Township, Range: Sec. 25, T26N, R21W
 Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR): LRR E, MLRA 43A Lat: 47.990517 Long: -114.253653 Datum: WGS84
 Soil Map Unit Name: Ashleylake-Foyslake-Kila complex, 0 to 15 percent slopes NWI classification: PEM1A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
-----------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------

Remarks: The NWPL 2020 wetland ratings were used.
 This point was determined to be within a wetland due to the presence of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Tsuga heterophylla</u>	20	Yes	FACU	
2. <u>Picea engelmannii</u>	25	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.33%</u> (A/B)
4. _____				
	45	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Cornus canadensis</u>	15	Yes	FAC	
2. <u>Alnus incana</u>	10	Yes	FACW	OBL species <u>45</u> x 1 = <u>45</u>
3. _____				FACW species <u>65</u> x 2 = <u>130</u>
4. _____				FAC species <u>40</u> x 3 = <u>120</u>
5. _____				FACU species <u>20</u> x 4 = <u>80</u>
	25	= Total Cover		UPL species <u>0</u> x 5 = <u>0</u>
				Column Totals: <u>170</u> (A) <u>375</u> (B)
				Prevalence Index = B/A = <u>2.21</u>
Herb Stratum (Plot size: <u>5 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Typha latifolia</u>	35	Yes	OBL	
2. <u>Calamagrostis canadensis</u>	45	Yes	FACW	<input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50%
3. <u>Lysichiton americanus</u>	10	No	OBL	<input checked="" type="checkbox"/> <u>3</u> - Prevalence Index is ≤3.0 ¹
4. <u>Equisetum hyemale</u>	5	No	FACW	<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Senecio triangularis</u>	5	No	FACW	<u>5</u> - Wetland Non-Vascular Plants ¹
6. _____				Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
	100	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>None Observed</u>				
2. _____				
% Bare Ground in Herb Stratum _____				

Remarks:

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
 A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Lakeside Club City/County: Lakeside, Flathead Co. Sampling Date: 10/11/2023
 Applicant/Owner: Improve One State: MT Sampling Point: SP2
 Investigator(s): Brian Sandefur, PWS Section, Township, Range: Sec. 25, T26N, R21W
 Landform (hillslope, terrace, etc.): Toe Slope Local relief (concave, convex, none): Linear Slope Slope (%): 2-5
 Subregion (LRR): LRR E, MLRA 43A Lat: 47.990574 Long: -114.253883 Datum: WGS84
 Soil Map Unit Name: Ashleylake-Rock outcrop complex, 30 to 50 percent slopes NWI classification: Non-Wetland
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
---------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

Remarks: The NWPL 2020 wetland ratings were used.
 This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Abies grandis</u>	30	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.67%</u> (A/B)
2. <u>Larix occidentalis</u>	35	Yes	FACU	
3. <u>Pseudotsuga menziesii</u>	10	No	FACU	
4. _____	_____	_____	_____	
75 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>115</u> x 4 = <u>460</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>125</u> (A) <u>490</u> (B) Prevalence Index = B/A = <u>3.92</u>
1. <u>Paxistima myrsinites</u>	5	Yes	FACU	
2. <u>Rubus parviflorus</u>	15	Yes	FACU	
3. _____	_____	_____	_____	
20 = Total Cover				
Herb Stratum (Plot size: <u>5 ft.</u>)				Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Actaea rubra</u>	15	Yes	FACU	
2. <u>Arnica latifolia</u>	10	Yes	FAC	
3. <u>Galium triflorum</u>	5	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
30 = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft.</u>)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. <u>None Observed</u>	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>70</u>				

Remarks:
 No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Lakeside Club City/County: Lakeside, Flathead Co. Sampling Date: 10/11/2023
 Applicant/Owner: Improve One State: MT Sampling Point: SP3
 Investigator(s): Brian Sandefur, PWS Section, Township, Range: Sec 19, T26N, R20W
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR): LRR E, MLRA 43A Lat: 47.994388 Long: -114.223412 Datum: WGS84
 Soil Map Unit Name: Ashleylake-Foyslake-Kila complex, 0 to 15 percent slopes NWI classification: Non-Wetland
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

Remarks: The NWPL 2020 wetland ratings were used.
 This point was determined to be within a wetland due to the presence of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None Observed</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>90</u> x 1 = <u>90</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>110</u> (B) Prevalence Index = B/A = <u>1.10</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u>)				
1. <u>None Observed</u>				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft.</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Typha latifolia</u>	70	Yes	OBL	
2. <u>Carex utriculata</u>	20	Yes	OBL	
3. <u>Mentha arvensis</u>	5	No	FACW	
4. <u>Juncus effusus</u>	5	No	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft.</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>None Observed</u>				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks:
 A positive indication of hydrophytic vegetation was observed (Rapid Test for Hydrophytic Vegetation).
 A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
 A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	100	None		—	—	Silt Loam	
6-16	10YR 4/2	95	10YR 4/6	5	C	PL/M	Silt Loam	

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Lakeside Club City/County: Lakeside, Flathead Co. Sampling Date: 10/11/2023
 Applicant/Owner: Improve One State: MT Sampling Point: SP4
 Investigator(s): Brian Sandefur, PWS Section, Township, Range: Sec 19, T26N, R20W
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Linear Slope Slope (%): 2-5
 Subregion (LRR): LRR E, MLRA 43A Lat: 47.994285 Long: -114.223275 Datum: WGS84
 Soil Map Unit Name: Ashlelake-Foyslake-Kila complex, 0 to 15 percent slopes NWI classification: Non-Wetland
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

Remarks: The NWPL 2020 wetland ratings were used.
 This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None Observed</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33%</u> (A/B)
2. _____				
3. _____				
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft.</u>)				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>45</u> x 5 = <u>225</u> Column Totals: <u>105</u> (A) <u>445</u> (B) Prevalence Index = B/A = <u>4.24</u>
1. <u>Picea engelmannii</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
= Total Cover				
Herb Stratum (Plot size: <u>5 ft.</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5 - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Dactylis glomerata</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Bromus inermis</u>	<u>45</u>	<u>Yes</u>	<u>UPL</u>	
3. <u>Cirsium arvense</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. <u>Verbascum thapsus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
5. <u>Phleum pratense</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft.</u>)				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1. <u>None Observed</u>				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum <u> </u>				

Remarks:
 No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: SP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/2	100	None	—	—	—	Silt Loam	
10-18	10YR 4/3	100	None	—	—	—	Silt Loam	