WILDLIFE HABITAT ANALYSIS
EDDYLINE RANCH PROJECT AREA
TETON COUNTY, IDAHO

Prepared For

STRR LLC

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Prepared By

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January 7, 2025

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Date of Report: January 7, 2025

Date Revised (if applicable): NA

Consultant Name: Kent Werlin

Company: Biota Research and Consulting, Inc.

Applicant Name and Contact Information:
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Project Name (if known): Eddyline Ranch

Parcel Number(s)/Description:
The Eddyline Ranch project area is comprised of 12 parcels totaling 423.8-acres owned by STRR LLC (Parcel: RP05N44E020700) located in Teton County, Idaho.

Lead Consultant Declaration:
"As the qualified lead consultant, I hereby certify that this Wildlife Habitat Analysis was prepared according to the policy established by Teton County Idaho and that the statements furnished in the report and associated maps and photos are true and correct to the best of my knowledge and belief."

Signature

1/7/2025
Date

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EXECUTIVE SUMMARY

Biota Research and Consulting, Inc. prepared this Wildlife Habitat Analysis for the proposed Eddyline Ranch subdivision on the STRR LLC Property in Teton County, Idaho. The Eddyline Ranch project area includes 12 proposed parcels and encompasses 423.8 acres of the larger 643.5-acre property owned by STRR LLC. The proposed subdivision is located north of Packsaddle Road (W 4000 N) and west of the Teton River. This Wildlife Habitat Analysis is required by Teton County because the project area is located within the Wildlife Habitat Overlay for Big Game Seasonal Range and Migration Corridors, Sharp Tailed Grouse Breeding Habitat, and Waterbird Breeding, Migration, Foraging and Wintering Habitat effective as of January 2025. The project area is located near the Teton River in the northwestern portion of Teton Valley, and the local topography is comprised of rolling hills. The property has a long history of agricultural use as farmland and pastureland. The project area serves as habitat for big game, including indicator species mule deer, moose, and elk, as well as potential seasonal habitat for sharp-tailed grouse and staging sandhill cranes as they begin their migration south for the winter. The primary conservation priorities for this project are to design the project to maintain habitat connectivity and open space, and to minimize impacts to the sagebrush steppe habitat, riparian habitat, and the surrounding ecotones.

INTRODUCTION AND BACKGROUND

Biota Research and Consulting, Inc. (Biota) prepared this Wildlife Habitat Analysis (WHA) for the proposed Eddyline Ranch subdivision on the STRR LLC Property in Teton County, Idaho. The Eddyline Ranch project area encompasses 423.8-acres of the larger 643.5 acres owned by STRR LLC (Parcel Number: RP05N44E020700; Appendix 1-Exhibits 1 and 2). The habitat inventory portion of this WHA includes the entirety of the 643.5 acres owned by STRR LLC, including the Eddyline Ranch project area. This WHA is required by Teton County because the project area is located within the Wildlife Habitat Overlay (WHO) for Big Game Seasonal Range and Migration Corridors, Sharp Tailed Grouse Breeding Habitat, and Waterbird Breeding, Migration, Foraging and Wintering Habitat per the Natural Resource Overlay Mapping effective as of January 2025 (Appendix 1-Exhibit 3).

Teton County adopted a new WHA protocol in April 2023. As outlined in the approved WHA guidance document, the purpose of a WHA is to "*provide information that will help the Applicant, the Boards of Planning and Zoning and County Commissioners, the Building Department, citizens, and other reviewers and decision-makers recognize and assess the wildlife habitat features of the proposed development site; help the Applicant design the development project in ways that avoid impacts to Indicator Species and Indicator Habitats; help the Applicant avoid costly reworking of the project design later on in the planning process; and streamline the environmental review.*"

METHODOLOGY

Background data and information for this WHA was primarily obtained from Idaho Department of Fish and Game (IDFG) and Teton County. A review of A Summary of Fish and Wildlife Resources in Teton County, Idaho (IDFG 2022) and available GIS data as they relate to the project area were reviewed, and

field investigations were conducted by Biota's Senior Ecologist, Kent Werlin, and Natural Resource Specialist, Chase Krumholz, during the spring/summer of 2023 and summer/fall of 2024. The weather was sunny to partly cloudy and about 50 to 75 degrees F. The entirety of the project area was surveyed to identify and map vegetation communities and search for evidence of wildlife use (e.g., browsed vegetation, rubs, tracks/trails, bedding sites, scat, etc.).

The WHA protocol is a phased process that requires the following general steps:

1. Perform field investigations to map and describe habitats and investigate use of the project area by wildlife indicator species;
2. Conduct and document formal consultation with the county and IDFG regarding wildlife habitat and wildlife use of the project area (note: this step is not currently required per Teton County Planning Department guidance);
3. Produce and submit a draft WHA report (including required maps, site description, and field assessment summary) to county for review;
4. Receive county checklist and update/finalize WHA report accordingly;
5. Coordinate with county and applicant and utilize WHA findings to inform the development of the Conservation Plan and guide development plans; and
6. Incorporate Conservation Plan in final WHA report and submit to county.

Per the current WHA regulations, this report is focused on Teton County indicator species and indicator habitats. Teton County indicator species include the following: Columbian sharp-tailed grouse, bald eagle, grizzly bear, elk, mule deer, moose, trumpeter swan, greater sandhill crane, long-billed curlew, Yellowstone cutthroat trout, and any federally listed Threatened or Endangered Species. Indicator habitats include emergent wetlands, willow riparian, forested riparian, aspen forest, conifer forest, shrubland, grassland, NRCS Conservation Reserve Program Grassland, documented wildlife migration corridors, and stream channels.

PROPERTY OVERVIEW

The STRR LLC property is located on the west side of the Teton River, and the local topography is comprised of rolling hills. The property includes a reach of Packsaddle Creek and associated floodplain and a small portion of the Teton River floodplain. The property has a long history of agricultural use as active farmland and pastureland. Existing development on the property is limited to fencing and unimproved 2-track access routes for farm equipment. The majority of the STRR LLC property has been converted to farmland that is actively farmed (see Appendix 1-Exhibit 4 and Appendix 3-Photo 1). The remainder of the property is largely dominated by sagebrush steppe and riparian vegetation associated with Packsaddle Creek.

The property is bordered by W 4000 N and several private parcels ranging from 9 to 480 acres on the south side, parcels ranging from 20 to 240 acres on the north side, parcels ranging between 20 and 240 acres along the east side, and parcels ranging between 20 and 250 acres along the west side. The surrounding area is minimally developed, and most of it is actively farmed. The Trapper's Ridge PUD to the northwest and the Saddle Bluff Ranch PUD to the southeast represent the most densely developed areas in the vicinity of the property. No public land occurs near the property. The property is currently zoned RA-35 Rural Agriculture, 35-acre average density.

FIELD ASSESSMENT

Biota's Senior Ecologist, Kent Werlin, and Natural Resource Specialist, Chase Krumholz, performed the field assessments for this report in the summer of 2023 and summer/fall 2024. The purpose of the field assessments was to identify and map vegetation communities, search for evidence of wildlife use (e.g., browsed vegetation, rubs, tracks/trails, bedding sites, scat, etc.), and investigate wildlife movement patterns. Photographic documentation from the field investigations is presented in Exhibit 3.

WILDLIFE HABITAT

Habitat types in the Eddyline Ranch project area include sagebrush steppe (245.6 acres), agricultural meadow-intensive (155.7 acres), agricultural meadow-passive (8.2 acres), mesic grassland (7.2 acres), disturbed (2.9 acres), open water (2.7 acres), scrub-shrub wetland (1.3 acres), cottonwood forest (0.4 acres), emergent wetland (0.1 acres), and mesic shrub (0.03 acres) [Table 1; Appendix 1-Exhibit 4].

Sagebrush Steppe

The sagebrush steppe is dominated by mountain big sagebrush (*Artemisia tridentata v. vaseyana*), 3-tip sagebrush (*Artemisia tripartita*), black sagebrush (*Artemisia nova*), and rubber rabbitbrush (*Ericameria nauseosa*) in the shrub stratum, with a diversity of forbs (e.g., *Lupinus argenteus, Potentilla gracilis, etc.*) and bunchgrasses (e.g., *Koelaria macrantha, Leymus cinerius*) in the herbaceous stratum. This native habitat type shows evidence of past grazing but is generally in good ecological condition. Sagebrush steppe provides habitat for a number of the Teton County indicator species, including mule deer, elk, moose, and sharp-tailed grouse.

Agricultural Meadow – Intensive

The intensive agricultural meadow in the project area is actively farmed and was planted with barley in 2023 and wheat in 2024. This covertype extends down onto the Packsaddle Creek floodplain in several areas. This habitat type provides open space for wildlife movement as well as seasonal foraging opportunities for big game but provides very little cover for wildlife, especially before planting and after harvest.

Agricultural Meadow – Passive

The passive agricultural meadow is dominated by pasture grass such as smooth brome and is situated adjacent to intensively farmed agricultural meadow habitat. It appears that this habitat was historically farmed but has been fallow for several years. This habitat type provides moderate quality wildlife habitat.

Mesic Grassland

The mesic grassland habitat occurs along the Packsaddle Creek corridor and is dominated by a diversity of mesic grasses and forbs, such as: *Bromus inermis, Elymus trachycaulus, Poa pratensis, Artemisia ludoviciana,* and *Lupinus sericeus.* This is habitat type provides nesting and foraging habitat for a number of wildlife species, including indicator species.

Disturbed

The disturbed area is associated with gravel roads (Packsaddle Road-W 4000 N, Eddy Line Dr, and N7000 W). Packsaddle Road runs along the southern project area boundary, Eddy Line Dr is located on the eastern side of the project area, and N 7000 W on the west side of the project area. Both Eddyline Dr and N 7000 W are used to access the project area.

Open Water

A 4,700-foot reach of Packsaddle Creek flows through the project area. Packsaddle Creek originates about 2 miles west of the project area, flows west-to-east through the southern portion of the project area, and eventually flows into the Teton River about 1,000 ft east of the project area. Packsaddle Creek is an ephemeral creek that has flashy hydrology with strong seasonal flow fluctuations. The project area reach

of the creek is typically at bankfull stage in early summer, and the channel is often completely dry by late summer.

Scrub-Shrub Wetland

Scrub-shrub wetland habitat along the small portion of Teton River floodplain that extends into the eastern portion of the project area. It is dominated by coyote willow, shrubby cinquefoil and whiplash willow. The understory is dominated by herbaceous species such as beaked sedge, Nebraska sedge, Kentucky bluegrass. This is likely the most valuable habitat type in the project area. It provides high quality escape/cover, nesting, and foraging habitat for a number of wildlife species, including indicator species.

Cottonwood Forest

The cottonwood forest habitat occurs in patches along and within the Packsaddle Creek channel. This habitat is dominated by black cottonwood in the overstory, coyote willow and juvenile cottonwoods in the shrub stratum, and a variety of mesic grasses and forbs in the understory. This habitat type was likely much more abundant prior to agricultural use of the property. The cottonwood forest provides escape/cover, nesting, and foraging habitat for a number of wildlife species, including indicator species.

Emergent Wetland

The emergent wetland habitat occurs in depressional areas along the Packsaddle Creek floodplain. Emergent wetlands are dominated by hydrophytic vegetation including: *Juncus balticus, Agrostis stolonifera,* and *Poa pratensis.* Although this habitat type makes up a small percentage of the project area, the emergent wetlands provide high quality habitat, including nesting and foraging habitat for a number of wildlife species, including indicator species.

Mesic Shrub

The mesic shrub habitat occurs along the Packsaddle Creek corridor. It is dominated by coyote willow and juvenile cottonwoods. The shrub canopy is dense, which limits light transmission and the growth of understory herbaceous species. Although this habitat type makes up for a small percentage of the project area, it provides high quality escape/cover, nesting, and foraging habitat for a number of wildlife species, including indicator species.

Table 1. Habitat types within the Eddyline Ranch Project Area, Teton County, Idaho.

Habitat Type	Area (sf)	Area (ac)	% of Project Area
Sagebrush Steppe	10,697,840	245.6	57.9
Agricultural Meadow-Intensive	6,785,218	155.7	36.8
Agricultural Meadow-Passive	356,222	8.2	1.9
Mesic Grassland	311,631	7.2	1.7
Disturbed	125,518	2.9	0.7
Open Water	105,386	2.4	0.6
Scrub-Shrub Wetland	56,761	1.3	0.3
Cottonwood Forest	16,948	0.4	0.09
Emergent Wetland	4,185	0.1	0.02
Mesic Shrub	1,432	0.03	0.008
Total	**18,461,140**	**423.8**	**100**

The sagebrush steppe, cottonwood, wetlands and mesic shrub communities as well as the surrounding ecotones provide the highest quality habitat for indicator species including, mule deer, elk, moose and sharp-tailed grouse. The farmland provides the highest value habitat for waterbird indicator species,

specifically sandhill crane. The overall value of the project area as wildlife habitat primarily lies in its landscape position, proximity to Teton River, and the open space, cover and food resources it provides with minimal human presence.

WILDLIFE SPECIES OCCURRENCE

To investigate wildlife use of the project area, Biota performed field investigations in 2023 and 2024 and reviewed aerial imagery and IDFG spatial data and *A Summary of Fish and Wildlife Resources in Teton County, Idaho* (IDFG 2022). Section 5-4-1-C of the Teton County Land Development Code (LDC) lists wildlife species that are considered indicator species and refers to them as "*species whose presence, absence, or relative well-being is a sign of the overall health of its ecosystem*." Indicator species and/or indicator species sign observed in the project area during the field investigation included elk, deer (mule and white-tailed) and moose. These species are considered by IDFG as the primary big game species in Teton County. Tracks, pellet groups and rubs of these species were primarily observed along the Packsaddle Creek riparian corridor, and mule deer tracks and trails were observed on the south-facing hillsides in the northern portion of the project area. Tracks and trails were also observed along the eastern property boundary, north of Packsaddle Creek, although some of these trails were also likely made and utilized by domestic livestock. The tracks and trails indicated big game movement through gaps in fencing along the eastern property boundary. Movement appeared to generally be east-west in this portion of the project area. A similar movement pattern was also observed along the Packsaddle Creek riparian corridor (Appendix 1-Exhibit 6). IDFG has focused considerable effort on understanding the population dynamics and habitat relationships of deer and elk across Idaho, including Teton County (IDFG 2022). For decades IDFG has collected data via aerial surveys, radio or GPS collared animals, and staff observations. A map depicting IDFG's understanding of general movement patterns and seasonal habitat for mule deer and elk in Teton County is presented in Figure 1. Based on this map, the property is not located within mapped winter use areas or near mapped movement corridors; however, the Teton River corridor is well-known movement corridor for big game and evidence observed during field investigations indicates that the project area also serves as a movement corridor for big game.

The project area also likely provides habitat for other mammals and migratory birds. Nests were observed within the cottonwood forest during site investigations (see Appendix 3-Photo 7). Songbirds and raptors likely nest in the cottonwood forest. Songbirds also likely nest in the shrub-dominated habitats. Small and medium sized mammals that may utilize habitat in the project area include ground squirrel, pocket gopher, weasel, chipmunk, mouse, vole, and shrew. Sign of predators such as coyote and fox were observed during the field investigation indicating these species use habitat in the project area. Grey wolves, black bears, and grizzly bears may occasionally move through the project area.

Although no evidence of grouse use was observed, the sagebrush steppe habitat likely provides nesting and/or brood rearing habitat for Columbian sharp-tailed grouse, while the forested and shrub dominated riparian zones along the Teton River and Packsaddle Creek may provide foraging opportunities as well as winter or nesting habitat for these birds.

INDICATOR SPECIES

Indicator species that are likely to utilize habitat in the project area (i.e., elk, deer, moose, sandhill cranes, and sharp-tailed grouse) are discussed in detail below.

Rocky Mountain Elk

Rocky Mountain elk are native to Idaho and are considered "habitat generalists" because they live in vegetation communities ranging from mixed-conifer forests to quaking aspen (*Populus tremuloides*) forests to grasslands to alpine meadows to stream valley shrublands and riparian hardwood forests. Elk

occupy many of these habitat types on the eastern slope of the Big Hole Mountains. Elk typically utilize high elevation habitat in the summer months and migrate down to lower elevation southern aspects with less snow cover during the winter. However, elk also occupy lower elevation habitats in the summer months, especially during parturition. Elk diets vary seasonally depending on availability of forage. Deciduous shrubs are utilized on a year-round basis. During the spring, elk focus primarily on grasses and then include forbs as they become available in the summer. Although no published elk tracking data were available for the project area and vicinity, elk are known to move around the open space in this part of the valley during the winter months.

Minimal elk sign was observed on the property during field investigations, but the property likely sees occasional elk use. Elk likely utilize the property on a year-round basis; however, use is likely concentrated during the fall/spring migration periods and during the winter months.

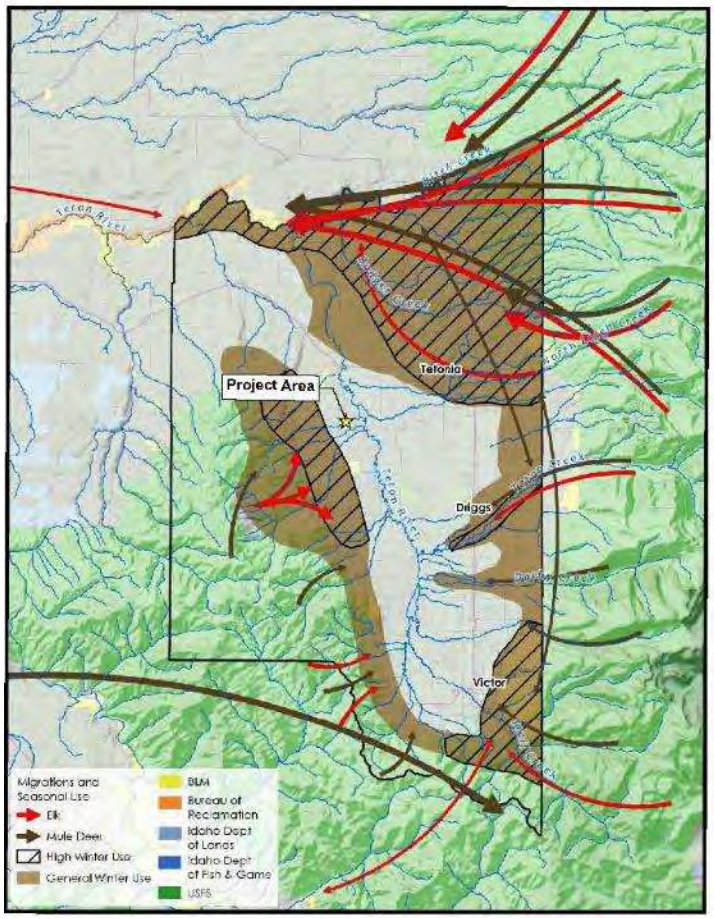


Figure 1. Map depicting the project area location and general mule deer and elk movement patterns and seasonal habitat in Teton County as mapped by Idaho Department of Fish and Game (IDFG 2022)

Deer

Although it was difficult to distinguish between white-tailed and mule deer sign, both likely utilize habitat on the property and vicinity.

Mule Deer

Mule deer utilize habitat in and around the property on a year-round basis. Mule deer can be expected to use the project area during winter months due to the presence of lower elevation habitat near the Teton River, and use of the project area likely increases dramatically during the spring as animals seek early green-up.

Although minimal IDFG mule deer tracking data is publicly available for the project area and vicinity, Figure 1 depicts the project area being within about 1-mile from a heavy winter use area for mule deer and elk. Mule deer and white-tailed deer sign (i.e., tracks and pellets) within the project area was primarily observed along south-facing hillsides and the Packsaddle Creek and Teton river riparian corridors, which confirms that the area provides habitat for mule deer (see Appendix 3-Photos 9-11). The forested and shrub-dominated habitat types provide the only hiding, escape, and thermal refuge on the property; therefore, these habitats and the surrounding ecotones provide the highest value habitat for mule deer in the project area. Similar to elk, mule deer likely primarily utilize the farmland habitat for foraging seasonally during the dusk to dawn hours due to the lack of cover. Fawning also likely occurs on and/or in the vicinity of the project area. Based on the site investigation, IDFG mapping, and minimal human presence, the project area likely sees moderate to high mule deer use.

White-Tailed Deer

White-tailed deer are generally concentrated in riparian, agricultural, and residential areas. They are very adaptable to human activities, and as such have replaced mule deer in some portions of Teton Valley, especially in agricultural fields and along riparian corridors in the valley bottom. White-tailed deer eat a variety of grasses, forbs, and hay crops as well as shrubs and trees, including red-osier dogwood, serviceberry, chokecherry, and immature cottonwoods. White-tailed deer are edge habitat species, and the riparian habitats and ecotones between the riparian habitats and agricultural meadows are expected to provide spring, summer, and fall habitat for white-tailed deer as well as winter habitat during low snow years.

Moose

Although the Shiras moose is the smallest of the four subspecies of Moose found in North America, it is the largest wild ungulate in Idaho. Moose typically occupy lacustrine and palustrine habitats associated with cottonwood- and willow-dominated riparian communities as well as spruce, fir, lodgepole pine, aspen forests and tall shrub communities. Although moose crucial winter range has not been specifically mapped by IDFG, general winter range for moose is found in willow-dominated riparian zones along low gradient drainages and tall shrub and aspen communities on foothill slopes. Moose are adapted for movement in deep snow conditions and are not typically restricted to small areas during winter. Moose and moose sign (i.e., tracks, beds, pellet groups, and evidence of browse) were observed along the Packsaddle Creek riparian corridor during the site investigations, moose are present within the project area and can be expected to utilize habitat in the project area on a year-round basis. Similar to deer, moose are most likely to utilize the riparian habitat along Packsaddle Creek and the Teton River.

Greater Sandhill Crane

Greater sandhill cranes are seasonal residents of Teton Valley and have been classified as a *Species of Greatest Conservation Need* by IDFG (IDFG 2017). The sandhill cranes that utilize habitat in Teton Valley are part of the Rocky Mountain Population of sandhill cranes. Although some cranes migrate to and nest in Teton Valley in the spring and early summer months, the greatest concentrations of sandhill cranes occurs in the fall, when a large number of cranes utilize Teton Valley as a pre-migration staging area to feed and rest prior to migrating to central New Mexico and Mexico (IDFG 2022). Teton Basin hosts the top pre-migration staging area for sandhill cranes in the Greater Yellowstone Area and one of the most important staging areas in the Greater Yellowstone Ecosystem. The most important habitats in Teton Valley for staging sandhill cranes include wetlands and nearby grain harvested grainfields on the west side of the Teton River between Hwy 31 and Packsaddle Road (IDFG 2022). The project area is proximate to Teton River floodplain wetlands and contains actively harvested grainfields. Although no evidence of cranes was observed during the field investigation, it is expected that cranes utilize the farmland (when planted with grain) and wetlands associated with Teton River and Packsaddle Creek for foraging in the fall prior to their migration south.

Columbian Sharp-tailed Grouse

Columbian sharp-tailed grouse are listed as a *Species of Greatest Conservation Need* in Idaho and as a Sensitive Species by the US Forest Service and the BLM (IDFG 2022). Columbian sharp-tailed grouse habitat in Teton Valley is primarily comprised of bunchgrass prairie and shrub-bunchgrass rangeland. These plant communities provide nesting and brood-rearing habitat, whereas forested and tall shrub-dominated riparian zones and mountain shrublands are essential for feeding, roosting, and escape cover during winter months. Habitat loss, degradation, and fragmentation due to intensive grazing, conversion of native habitat to cultivation, and residential/commercial development have been the primary contributors to population declines (NatureServe 2024, IDFG 2022). The sagebrush steppe habitat in the project area likely provides nesting and/or brood rearing habitat for Columbian sharp-tailed grouse, while the forested and shrub dominated riparian zones along the Teton River and Packsaddle Creek may provide foraging opportunities as well as winter or nesting habitat for these birds.

THREATENED AND ENDANGERED SPECIES

A custom report generated by the U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Conservation (IPaC) System for the project area identified three species listed as threatened (grizzly bear, North American wolverine, and Ute's Ladies'-tresses) and one candidate species (Monarch butterfly) under the ESA that may occur in the vicinity of the project area (Appendix 2). Background research on the current status of these species in the region was performed, and site investigations were conducted to investigate habitat potential.

Grizzly Bear

Grizzly bears currently inhabit much of the Greater Yellowstone Ecosystem (GYE), including portions of Yellowstone National Park, Grand Teton National Park, and Bridger-Teton, Shoshone, Caribou-Targhee, Gallatin, and Custer National Forests, but at a relatively low density. Grizzly bears were originally listed as threatened under the ESA in the lower 48 states in 1975. The GYE Distinct Population Segment (DPS) of grizzly bears was briefly delisted by the USFWS in 2017 and then relisted in September 2018 due to a federal court decision. The most suitable habitat for grizzly bears in the GYE occurs in areas with large tracts of undisturbed habitat and minimal human presence. The core population of grizzly bears in the region is centered in Yellowstone National Park, but they have expanded their range in recent years and are known to travel from Yellowstone and Grand Teton National Park to areas south. Preferred grizzly bear foods (e.g., wild berries, roadkill/carrion, ungulates, etc.) are present in the vicinity of the project area. Denning conditions within the project area are not favorable due to the lack of high elevation conifer forests and secluded avalanche terrain. The project area is near areas with frequent human and vehicle presence and includes actively harvested agricultural meadows, which reduces habitat suitability for grizzly bears. Habitat within the project area is not considered secure grizzly bear habitat because it is not located more than 500 meters from a motorized access route. Due to the extensive home ranges of GYE grizzly bears, bears likely utilize habitat in the vicinity of the project area on an occasional basis; however, consistent use of the project area is not expected. Grizzly bear use of the project area would principally occur during dispersal or travel between areas of higher quality habitat.

North American Wolverine

Wolverines are rare and wide-ranging predators, occurring mainly in the high elevation, alpine portions of western Wyoming. In February 2013, the distinct population segment of the North American wolverine occurring in the contiguous United States was proposed for listing as a threatened species under the ESA. Given their large ranges, wolverines can be found in a wide variety of habitats in these areas, particularly boreal conifer forests. Suitable habitat is defined by a combination of cold temperatures and reliable winter precipitation, where deep persistent snow at high elevations is available late into the spring and early summer. Home ranges of this species are notoriously large, and adult males generally cover the greatest

distances. Adult male wolverines in the GYE generally have average home ranges in excess of 300 square miles. It is reasonable to assume that the project area lies within one or more home ranges of wolverines, but due to human presence in the vicinity of the project area and lack of preferred habitat, it is unlikely that a wolverine would travel through the project area. The proposed project is expected to have no effect on wolverines.

Ute Ladies' Tresses

Ute Ladies' Tresses are typically found along riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows along perennial streams. This species typically occurs in stable wetland and groundwater discharge areas associated with floodplains of major rivers or near freshwater lakes or springs. Potential Ute Ladies' Tresses habitat in the vicinity of the project area occurs on the Teton River floodplain and along Packsaddle Creek; however, no Ute's Ladies' Tresses were observed within the project area.

Monarch Butterfly

The monarch butterfly is a candidate for listing under the ESA. The monarch butterfly requires milkweed to complete its life cycle. Monarchs lay eggs on the underside of milkweed leaves, and the resulting caterpillars subsequently eat the leaves. No milkweed was observed in the project area; however, monarchs are known to fly through the area during their annual migrations. Adult monarchs feed on nectar from a wide variety of flowering plants. Important nectar sources during the spring migration typically include Coreopsis spp., Viburnum spp., Phlox spp., and early blooming milkweeds. Important nectar sources during fall migration include goldenrods (*Solidago* spp.), asters (*Symphyotrichum* spp. and *Eurybia* spp.), gayfeathers (*Liatris* spp.), and coneflowers (*Echinacea* spp.). Other important nectar sources include willow (*Salix* sp.), sunflower (*Helianthus* spp.), thistle (*Cirsium* spp.) and sage (*Salvia* spp.). Several of these plant species are present in and around the project area, and monarchs may be present in the project area for brief periods during their migrations in the summer and fall, but the project area does not provide long-term habitat for Monarchs. The proposed project is expected to have a negligible effect on monarch butterflies.

PRIORITY CONSERVATION TARGETS

The primary conservation targets for this project are to preserve open space, maintain habitat connectivity within the project area and between the project area and the surrounding open space, minimize impacts to wildlife high use areas, and minimize impacts to the riparian and sagebrush dominated habitats and the surrounding ecotones. The grainfields are potentially important feeding grounds for staging sandhill cranes; however, they comprise a large percentage (36.2%) of the project area. Therefore, development-related impacts to the farmland would likely have less of an impact on wildlife than impacts to the riparian and shrub dominated habitats. Any proposed development should be paired with habitat restoration and enhancement to help offset potential wildlife habitat impacts.

PROPOSED DEVELOPMENT

Twelve parcels (approximately 28 acres to 48 acres in size) are proposed for the Eddyline Ranch project area, along with several access roads and a pond. Building envelopes have been established for each proposed parcel, but no physical development is currently planned other than general infrastructure for the subdivision (e.g., access roads, utilities, and pond).

CONSERVATION PLAN

Per guidance provided in Section 4B VII of the WHA regulations adopted by Teton County in April 2023, a conservation plan is required. Efforts were made by the applicant to minimize impacts to indicator

species and habitat; however, some impacts are necessary in order to meet project objectives. The applicant is proposing a multi-faceted conservation plan to mitigate project-related impacts. The conservation plan includes minimization of adverse impacts and the implementation of multiple habitat restoration/enhancement projects. Proposed conservation measures are described below and depicted on Appendix 1-Exhibit 7:

Avoidance and Minimization
Biota worked with the project design team to site building envelopes to maintain wildlife movement corridors to the extent feasible while maintaining development objectives. The team also worked to protect south-facing slopes and the Packsaddle Creek corridor to minimize impacts to the most valuable wildlife habitat. In addition, more than 80% of the project area will be maintained as open space.

Habitat Restoration and Enhancement
In addition to the avoidance and minimization measures, Biota worked with the project team to incorporate several habitat restoration and enhancement projects into the Conservation Plan to further mitigate development-related impacts on wildlife. These projects include fence removal and fencing restrictions, noxious weed control, removal of intensive grazing, restoration of all existing farmland back to grassland, and restoration of more than 1 mile of Packsaddle Creek and associated riparian corridor.

All internal fencing within the project area will be removed to minimize wildlife entanglement hazard. The applicant has already begun work on this project. Additionally, the applicant has committed to prohibiting boundary fencing around proposed parcels and requiring any new fencing to be wildlife friendly except for fences that are intended to keep wildlife out (e.g., garden/yard fence).

Noxious weeds such as Canada thistle were observed in the project area during site investigations. A robust weed control program will be implemented to control existing noxious weeds and minimize further spread of weeds during development of the proposed subdivision.

The project area has been intensively grazed for many years, which has had a detrimental impact on wildlife habitat. The applicant has committed to ceasing all grazing activities to allow for the regrowth and restoration of wildlife habitat in the impacted areas.

The applicant is in the process of enrolling approximately 200 acres of the farmland in the project area (plus an additional 35 acres outside of the project area) in the Conservation Reserve Program (CRP). This farmland will be restored back to native CRP grassland, which has been identified by Teton County as a valuable indicator habitat.

Approximately 1.3 miles of Packsaddle Creek within the project area (plus an additional 1.2 miles outside of the project area) will be restored. The project area reach of Packsaddle Creek is laterally and vertically unstable as evidenced by incised channel conditions and vertical eroding cut banks along much of its length within the project area. This restoration project is intended to restore the natural channel characteristics and geomorphic functions of Packsaddle Creek as well as improve fish habitat conditions. Through the through the application of established stream restoration treatments, bioengineering techniques, and revegetation strategies, the Packsaddle Creek restoration project will:

1. Increase bank stability and reduce bank erosion related sediment inputs;

2. Increase cover and holding water for wild salmonids (especially during seasonal periods of instream flow when migrating adult Yellowstone cutthroat are present);

3. Construct inset floodplain benches to narrow excessively wide sub-reaches;
4. Improve riparian vegetation characteristics (presence, distribution, diversity, structure); and
5. Maximize the ecological values of Packsaddle Creek.

LITERATURE CITED

Idaho Department of Fish and Game (IDFG). 2022. A Summary of Fish and Wildlife Resources in Teton Valley. Upper Snake Region of the Idaho Fish and Game. 55pp.

Idaho Department of Fish and Game (IDFG). 2017. Idaho State Wildlife Action Plan, 2015. Idaho Department of Fish and Game, Boise, Idaho. 1,458pp.

APPENDIX 1 – EXHIBITS
WILDLIFE HABITAT ANALYSIS
EDDYLINE RANCH PROJECT AREA
TETON COUNTY, IDAHO

1) Project Location, Eddyline Ranch Project Area, Teton County, Idaho.

2) LiDAR-Based Topographic Mapping, Eddyline Ranch Project Area, Teton County, Idaho.

3) Natural Resource Overlay, Eddyline Ranch Project Area, Teton County, Idaho.

4) Vegetation and Habitat Types, Eddyline Ranch Project Area, Teton County, Idaho.

5) Wetlands and Waterbodies, Eddyline Ranch Project Area, Teton County, Idaho.

6) Priority Habitat and Species Mapping, Eddyline Ranch Project Area, Teton County, Idaho.

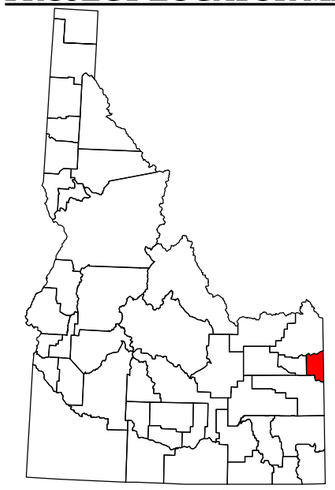
7) Conservation Plan, Eddyline Ranch Project Area, Teton County, Idaho.

WILDLIFE HABITAT ANALYSIS
Eddyline Ranch Project Area
Teton County, Idaho

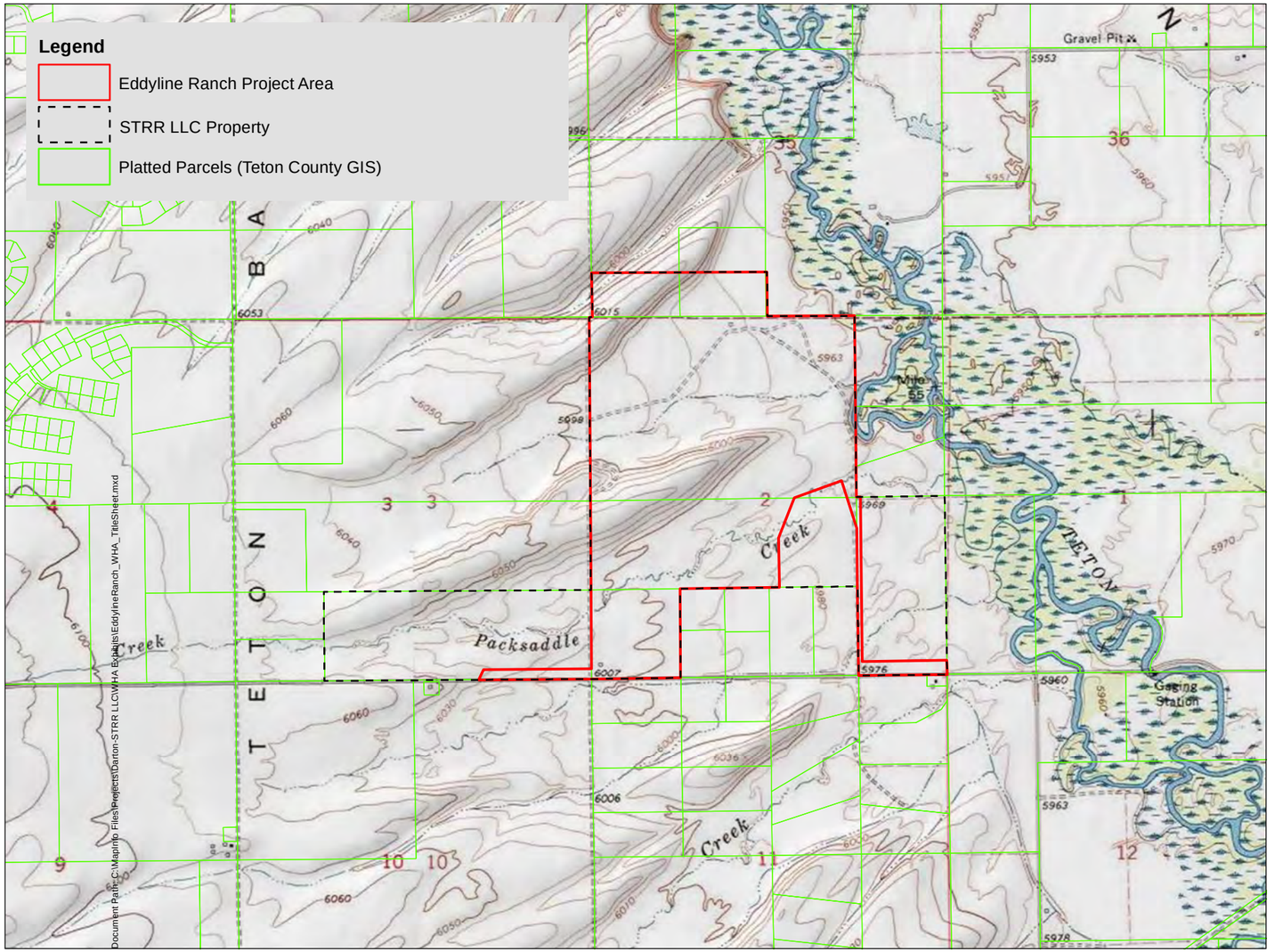
PREPARED FOR:
STRR LLC

EXHIBIT INDEX

PROJECT LOCATOR MAP



Teton County, Idaho



Biota research & consulting inc.
PO Box 8578. 140 E. Broadway, Suite 23 Jackson, WY 83002

Project Location
Eddyline Ranch Project Area
Teton County, Idaho

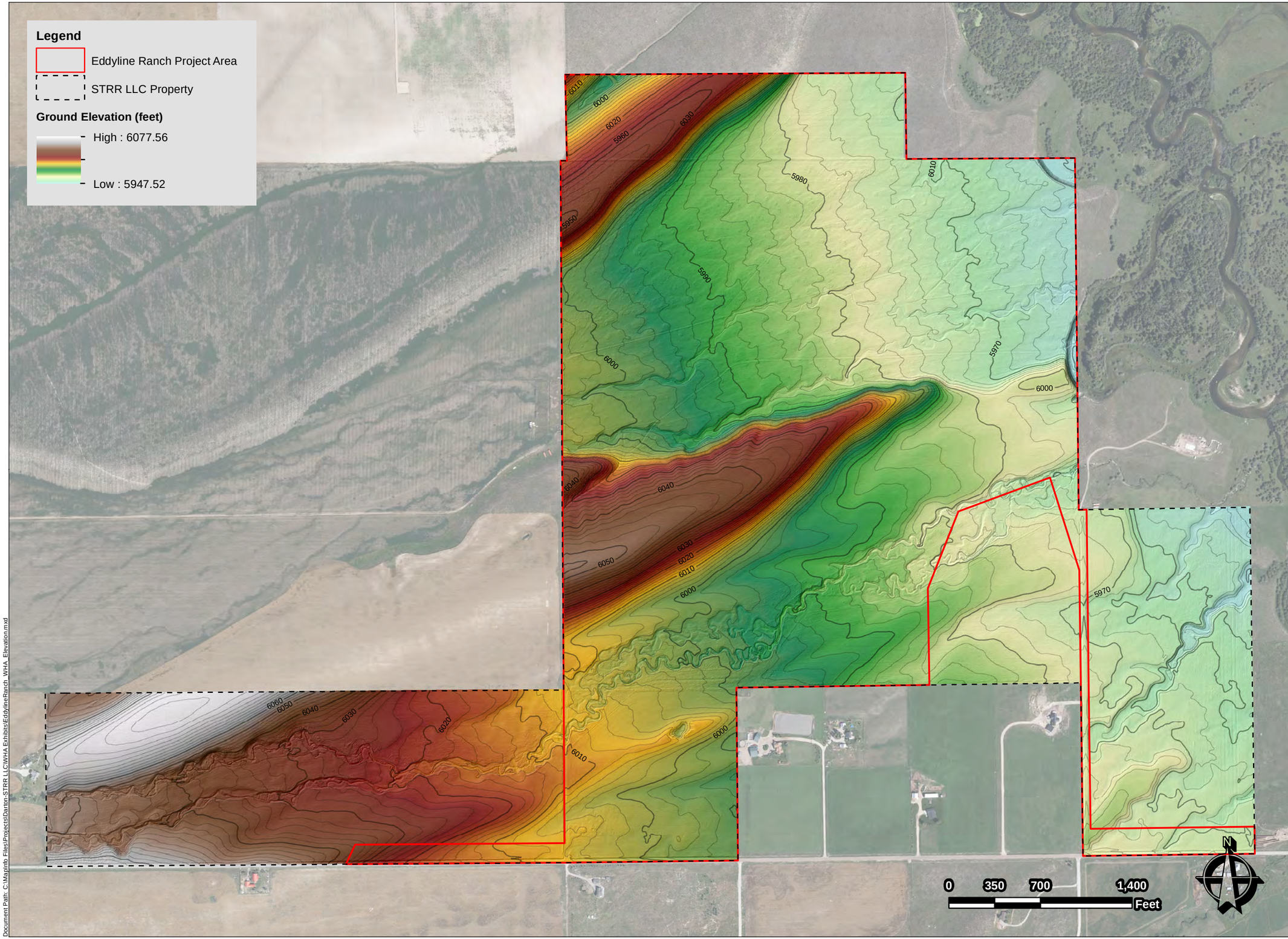
REV.	DATE	BY	DESC
A	03-28-2024	CK	WHA

SCALE: 1" = 2,000'

UNITS: US FOOT

BASEMAP SOURCE: ESRI USA TOPO MAPS

EXHIBIT 1



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Biota
PO Box 8578. 140 E. Broadway, Suite 23 Jackson, WY 83002

LiDAR-Based Topographic Mapping

Eddyline Ranch Project Area
Teton County, Idaho

REV.	DATE	BY	DESC
A	03-28-2024	CK	WHA

SCALE: 1" = 700'

UNITS: US FOOT
BASEMAP SOURCE:
LiDAR Derived Elevation Model
2023 Aerial Imagery

EXHIBIT 2

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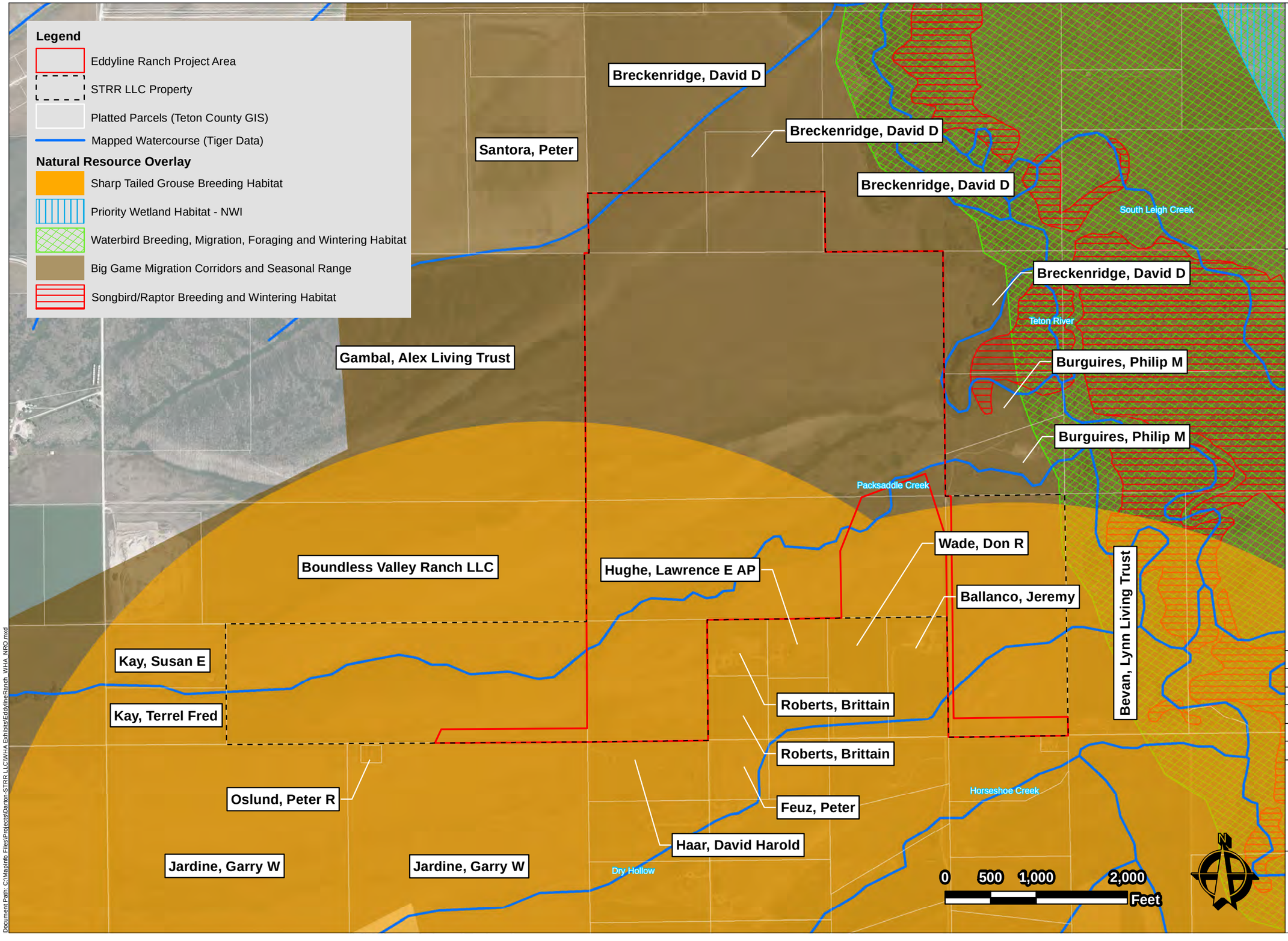

Biota research & consulting inc.
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Natural Resource Overlay

Eddyline Ranch Project Area
Teton County, Idaho

REV.	DATE	BY	DESC
A	03-28-2024	CK	WHA
B	12-11-2024	CK	WHA

SCALE: 1" = 1,000'

UNITS: US FOOT

BASEMAP SOURCE:
2023 Aerial Imagery

EXHIBIT 3

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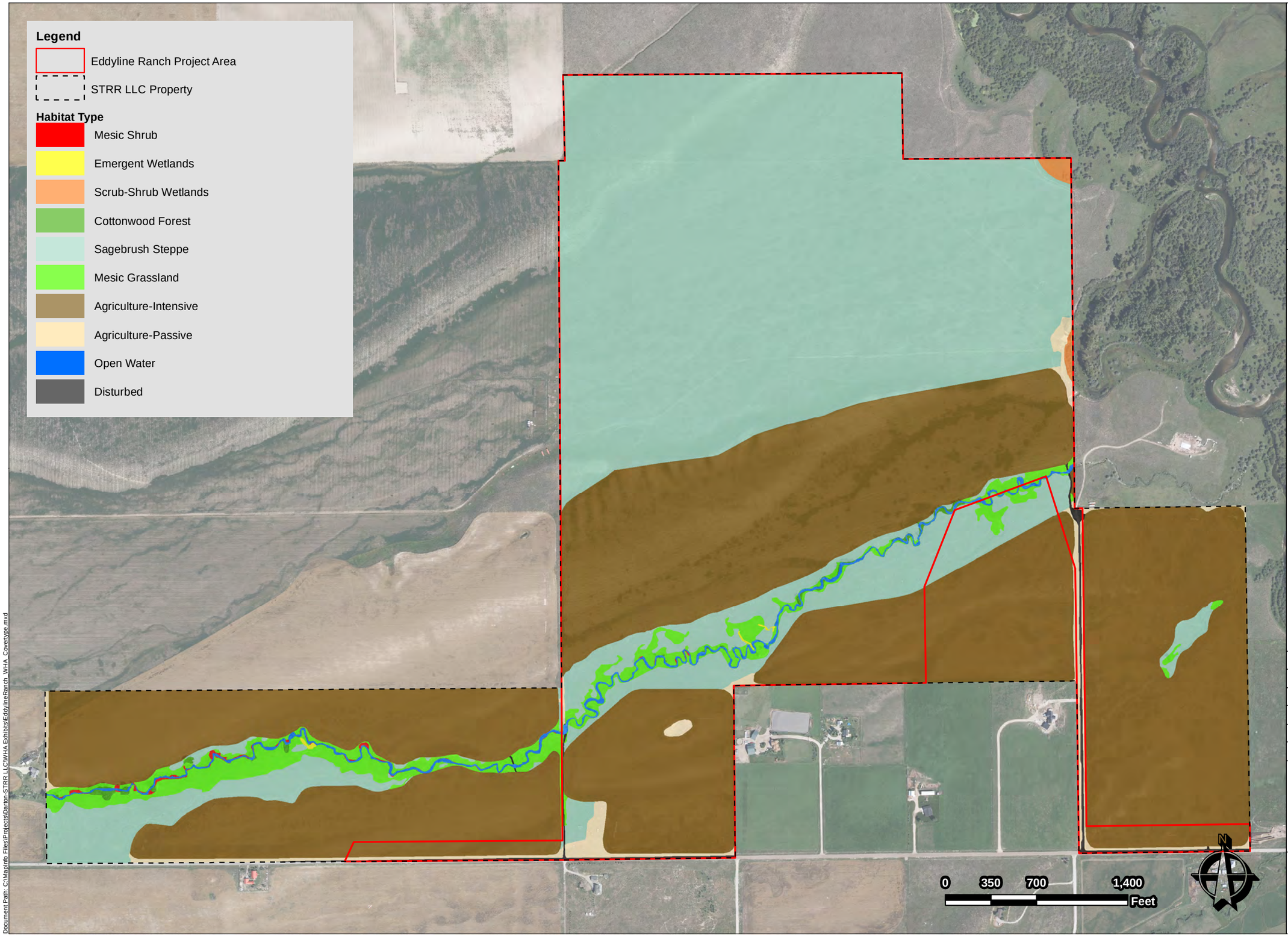

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Vegetation and Habitat Types

Eddyline Ranch Project Area
Teton County, Idaho

REV.	DATE	BY	DESC
A	03-28-2024	CK	WHA
B	12-11-2024	CK	WHA

SCALE: 1' = 700'

UNITS: US FOOT

BASEMAP SOURCE:
2023 NAIP Imagery

EXHIBIT 4

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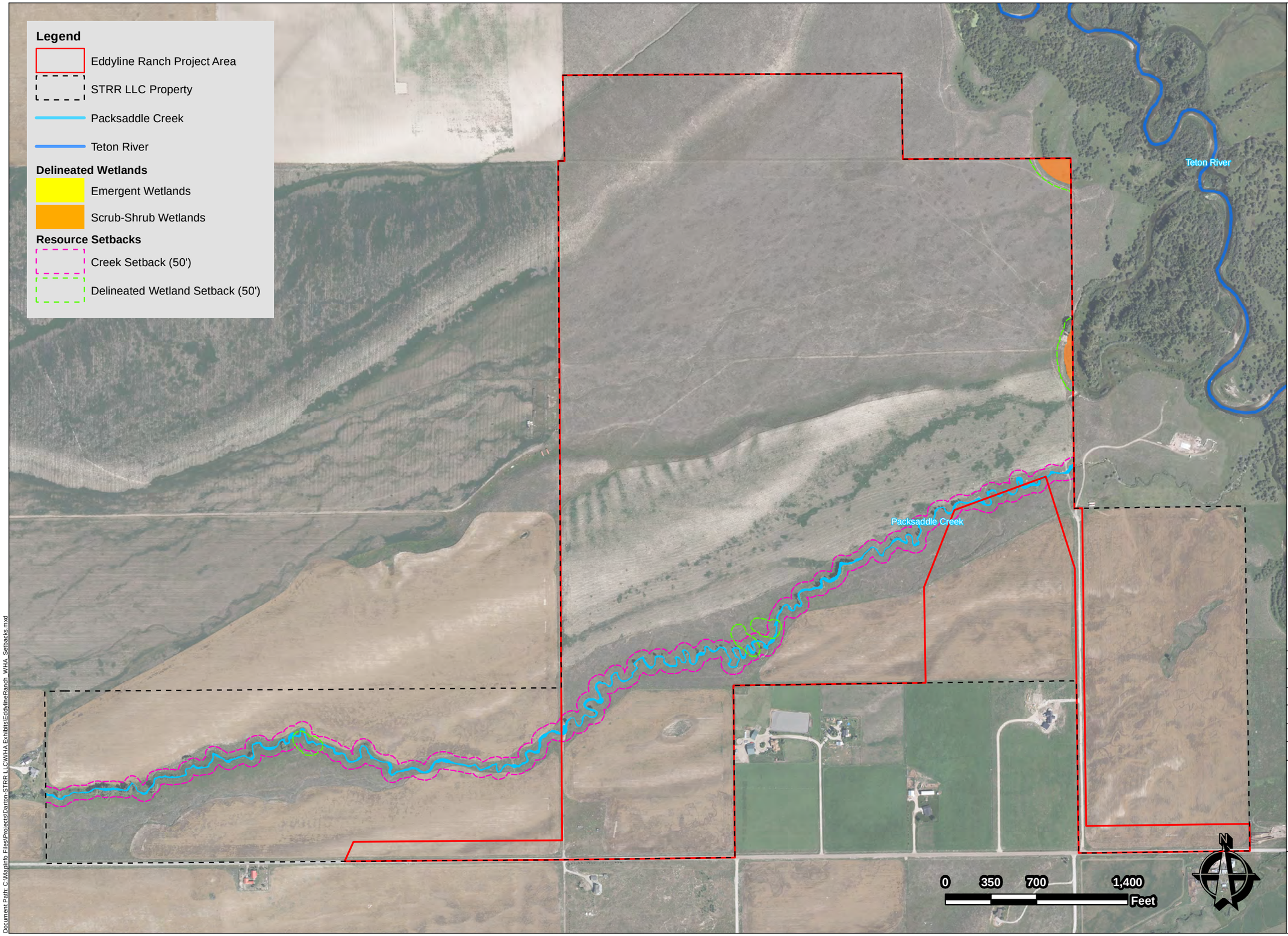

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PO Box 8578. 140 E. Broadway, Suite 23 Jackson, WY 83002

Wetlands and Waterbodies

Eddyline Ranch Project Area
Teton County, Idaho

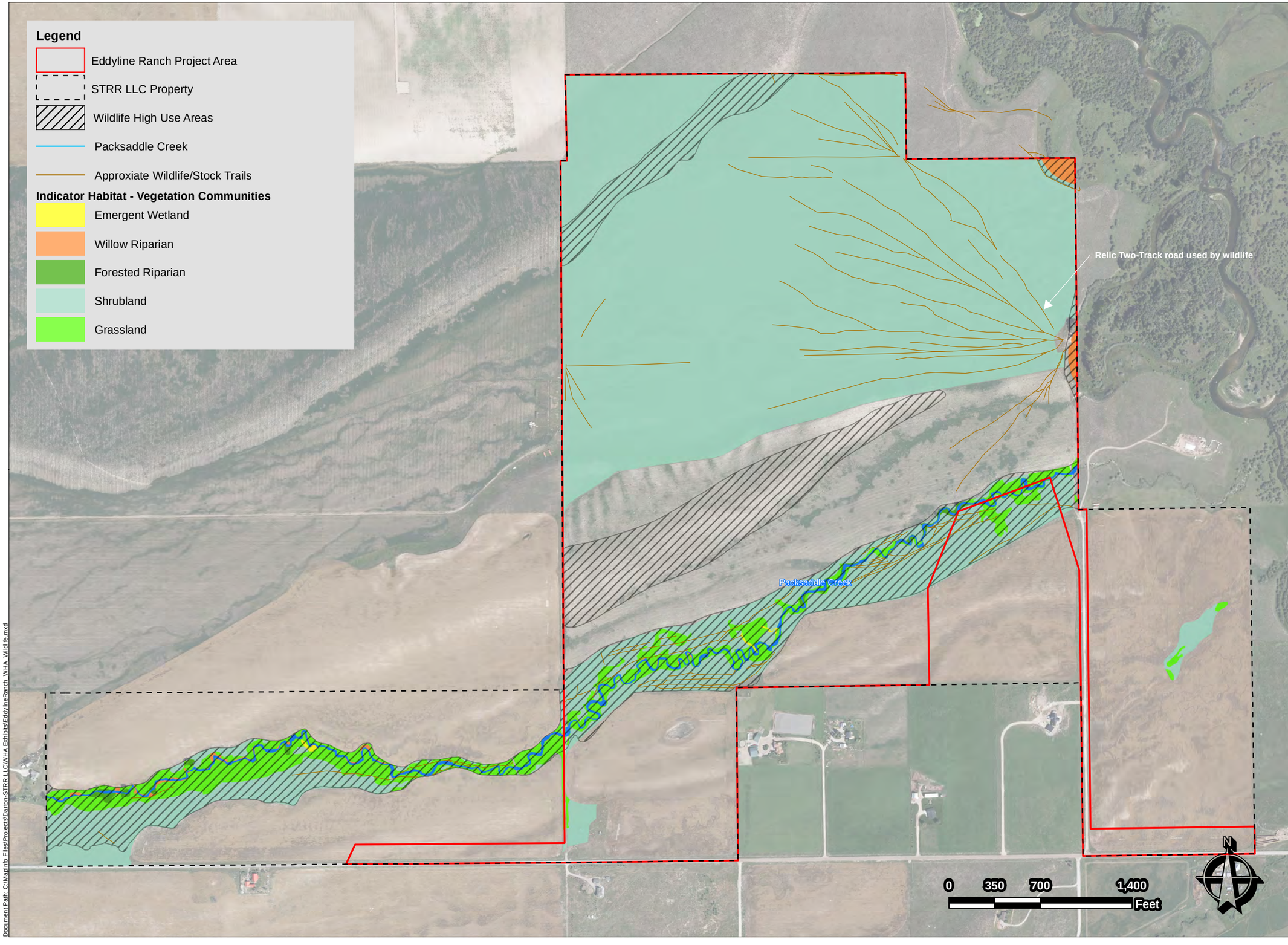
REV.	DATE	BY	DESC
A	12-16-2024	CK	WHA

SCALE: 1" = 700'

UNITS: US FOOT
BASEMAP SOURCE:
LiDAR Derived Elevation Model
2023 Aerial Imagery

EXHIBIT 5

Document Path: C:\MapInfo Files\Projects\Darton-STRR LLC\WHA Exhibits\Eddyline Ranch_WHA_Setbacks.mxd



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PO Box 8578. 140 E. Broadway, Suite 23 Jackson, WY 83002

Priority Habitat and Species Mapping

Eddyline Ranch Project Area
Teton County, Idaho

REV.	DATE	BY	DESC
A	03-28-2024	CK	WHA

SCALE: 1' = 700'

UNITS: US FOOT

BASEMAP SOURCE:
2021 NAIP Imagery

EXHIBIT 6

Legend

- Eddyline Ranch Project Area
- STRR LLC Property
- Packsaddle Creek
- Proposed Building Envelopes
- Proposed Road
- Proposed Lot Lines
- Proposed Pond
- Wildlife Movement Corridors
- CRP Grassland Restoration
- CRP Grassland Restoration (offsite)

0 350 700 1,400 Feet

N

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Biota
PO Box 8578. 140 E. Broadway, Suite 23 Jackson, WY 83002

Conservation Plan

Eddyline Ranch Project Area
Teton County, Idaho

REV.	DATE	BY	DESC
A	12-26-2024	CK	WHA

SCALE: 1" = 700'

UNITS: US FOOT
BASEMAP SOURCE:
LiDAR Derived Elevation Model
2023 Aerial Imagery

EXHIBIT 7

Document Path: C:\MapInfo Files\Projects\Darton-STRR LLC\WHA Exhibits\EddylineRanch_WHA_Conservation.mxd

APPENDIX 2 – USFWS CUSTOM IPAC RESOURCE REPORT

IPaC **U.S. Fish & Wildlife Service**

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

Teton County, Idaho

Local office

Idaho Fish And Wildlife Office

(208) 378-5243
(208) 378-5262

1387 South Vinnell Way, Suite 368
Boise, ID 83709-1657

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 species[1] 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 Fisheries[2]).

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.

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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
Grizzly Bear Ursus arctos horribilis There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/7642	Threatened
North American Wolverine Gulo gulo luscus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5123	Threatened

Insects

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

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses Spiranthes diluvialis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2159	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 Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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 likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* 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/1626	Breeds Dec 1 to Aug 31

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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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 (■)

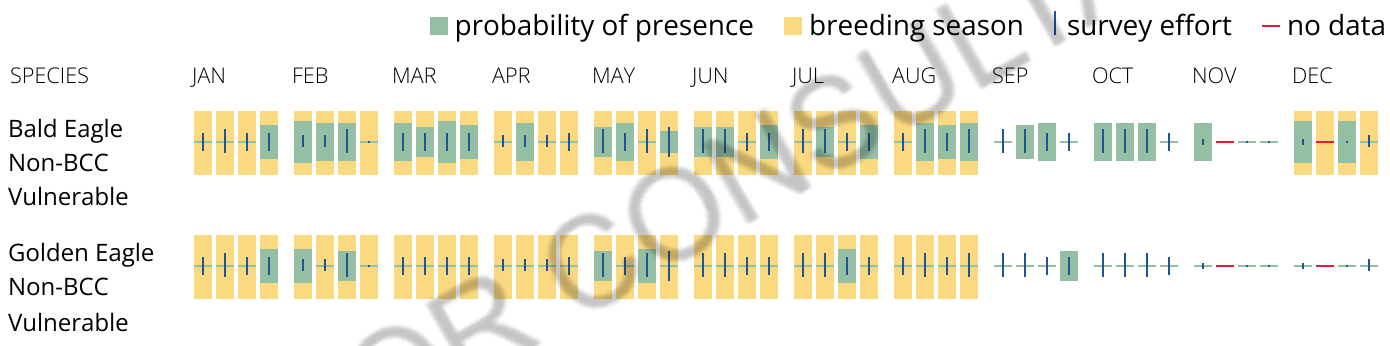
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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 Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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-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

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, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American White Pelican pelecanus erythrorhynchos This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus 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/1626	Breeds Dec 1 to Aug 31
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Calliope Hummingbird Selasphorus calliope This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9526	Breeds May 1 to Aug 15
Cassin's Finch Haemorhous cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 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/3914

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

Sage Thrasher Oreoscoptes montanus — Breeds Apr 15 to Aug 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9433

Willet Tringa semipalmata — Breeds Apr 20 to Aug 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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 (–)
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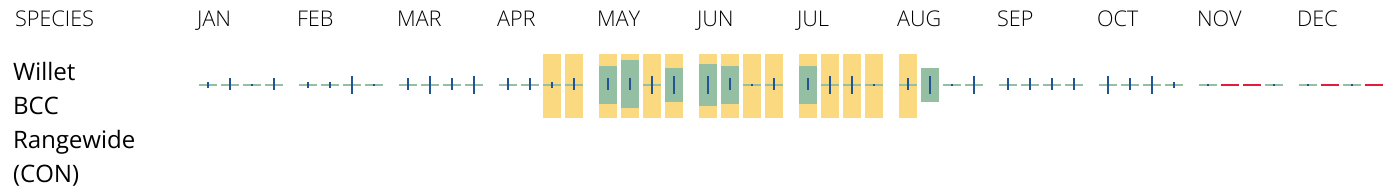
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1A

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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 tuberficid 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 3 – PHOTOGRAPHIC DOCUMENTATION

Photo 1. Photograph depicting the mesic grassland habitat adjacent to sagebrush steppe habitat near Packsaddle Creek, looking west.

Photo 2. Photograph depicting the mesic shrub and cottonwood forest habitat along the Packsaddle Creek riparian corridor, looking west.

Photo 3. Photograph depicting the mesic shrub habitat within the Teton River floodplain located in the northeastern corner of the project area, looking southeast.

Photo 4. Photograph depicting the cottonwood forest habitat and Packsaddle Creek in the central portion of the project area, looking east.

Photo 5. Photograph depicting the sagebrush steppe habitat in the northern portion of the project area, looking southeast.

Photo 6. Photograph depicting the agricultural meadow-intensive and the adjacent Packsaddle Creek riparian corridor in the southern portion of the project area, looking east.

Photo 7. Photograph depicting a redtail hawk nest in the cottonwood forest habitat.

Photo 8. Photograph depicting a wildlife trail within the sagebrush steppe habitat.

Photo 9. Photograph depicting a wildlife trail near Packsaddle Creek.

Photo 10. Photograph depicting moose pellet groups within and along the edge of the mesic shrub habitat.

Photo 11. Photograph depicting game trails on a south-facing slope in the northern portion of the project area.