

Wildlife Habitat Assessment, Impact Analysis, and Mitigation Plan

Late Bloomer Ranch
Conditional Use Permit
979 N 2000 E
Parcel: RP05N46E293000
Driggs, ID



July 24, 2020

Prepared for:
Corinne McAndrews
Late Bloomer Ranch

Prepared by:

ALDERENVIRONMENTAL

water | wetlands | ecological consulting

Jackson, WY alderenvironmental.com

TABLE OF CONTENTS

Introduction	1
General Location	1
Vegetation & Existing Conditions.....	1
Wildlife Habitat Assessment	1
Elk.....	2
Mule Deer	2
Moose	3
Raptors	3
Columbian Sharp-tailed Grouse	3
Songbirds.....	3
Waterbirds	3
Greater Sandhill Crane	3
Long-Billed Curlew	4
Trout.....	4
Impact Analysis & Mitigation Plan	4
Land Management Plan	5
Design Review	5
References	6
Appendix A: Figures	
Appendix B: Photos	
Appendix C: Idaho Department of Fish and Game Elk and Mule Deer Range Maps	

INTRODUCTION

Alder Environmental LLC conducted a Wildlife Habitat Assessment and Impact Analysis for 979 N 2000 E (the Property) to document existing conditions and assess potential impacts of a proposed Conditional Use Permit (CUP) to the area's protected wildlife resources under the current Teton County Idaho Wildlife Habitat Overlay Regulation Standards (Teton County, 2013b). The proposed CUP is on 1.15 acres of the 66.36-acre property, located east of the Town of Driggs and is owned by Deal Come Round, LLC, Parcel RP05N46E293000 (the Property). The Property is located within the *Big Game Migration Corridors and Seasonal Range* Wildlife Habitat Overlay and partially located within the *Songbird/Raptor Breeding and Wintering Habitat* Wildlife Habitat Overlay as defined in Titles 8 and 9 (Teton County, 2013a & b).

GENERAL LOCATION

The Property is situated in agricultural meadows located approximately 0.2 miles south of Teton Creek (Figure 1). Figure 1 depicts the Property and proposed CUP boundary on USGS topographic map. The proposed CUP area is located in agricultural meadows with no topographic change or hydrologic features. The Property is surrounded by agricultural fields to the west and east, a tree farm and agricultural meadows to the south, the undeveloped Targhee Hill Estates subdivision to the north, and the Teton Creek riparian corridor to the northwest.

VEGETATION & EXISTING CONDITIONS

Existing natural resource conditions on the Property were identified during a site visit conducted on July 24, 2020 and by aerial imagery (2017 ESRI; 2019 Teton County, ID). Alder categorized plant communities based on Teton County's vegetation classification system (Merigliano, 2009). Vegetative cover types found on the Property include agricultural meadows and disturbed areas (small barns, roads, and parking areas; Figure 2). The vegetative cover types found through field observations on July 24, 2020 are summarized below.

The vast majority of the Property (>65 acres) consists of cultivated agricultural meadow (i.e., grasses). The agricultural meadow is currently dominated by alfalfa (*Medicago sativa*) with some smooth brome (*Bromus inermis*) and other native and introduced plant species near the perimeter of the field. Agricultural meadow communities provide summer grazing forage for ungulate species (elk and mule deer) as well as foraging areas for raptors in search of rodents and songbirds in the summer months and carrion in the winter months. Agricultural meadow vegetative cover types are high priority areas for development and are considered low habitat quality for Teton County indicator species and their habitats. The remainder of the Property (< 1 acre) is comprised of disturbed habitats where roads and parking areas occur in the northwest corner and along the western edge of the Property.

WILDLIFE HABITAT ASSESSMENT

The Teton County Wildlife Habitat Overlay Map layer, *Big Game Migration Corridors and Seasonal Range*, encompasses the northern half of the Property and the entire CUP area (Figure 3). The *Songbird/Raptor Breeding and Winter Habitat* Wildlife Habitat Overlay is also mapped in the northwestern corner of the Property and in a portion of the CUP area. This boundary and designation are likely a result of the Property's proximity to the Teton Creek riparian corridor but are not representative of wildlife habitat types that exist on the Property. The Teton Creek riparian vegetation corridor is located approximately 200-300 feet from the proposed CUP. Alder confirmed that the Property does not contain the typical riparian corridor characteristics, such as riparian forest and shrub understory vegetative cover types that would support crucial winter range for ungulates and provide high quality nesting and wintering habitat for songbirds and raptors. However, the Property does

contain agricultural meadows that may be used by elk, mule deer, songbirds and raptors primarily for foraging. Table 1 and Figure 3 identify wildlife indicator species and habitats protected by the Wildlife Habitat Overlay and their potential presence within a half mile of the Property.

Online Idaho Department of Fish and Game (IDFG) maps containing modeled probabilities of elk winter range, elk summer range, elk migration corridors, mule deer winter range, and mule deer summer range were reviewed for the Property and CUP area (IDFG 2020a). Species Observation data from the Idaho Species Diversity Database were also reviewed for occurrences of other wildlife indicator species in the vicinity of the Property and CUP area (IDFG 2020b).

Table 1. Wildlife Species Protected by the Wildlife Habitat Overlay and Species Presence within ½ Mile of the Property

INDICATOR SPECIES	PRESENCE ON THE PROPERTY	PRESENCE WITHIN ½ MI OF PARCEL
Elk	Yes	Yes
Mule Deer	Yes	Yes
Moose	Possible	Yes
Columbian Sharp-Tailed Grouse	No	Possible
Songbirds	Yes	Yes
Raptors	Possible	Yes
Trumpeter Swan	No	Possible
Other Waterfowl	Possible	Yes
Greater Sandhill Crane	Possible	Possible
Long-billed Curlew	Possible	Possible
Trout	No	Yes

ELK

The Palisades Zone which includes Teton Valley is noted to have abundant spring, summer, and fall habitat for elk (IDFG 2019a). Elk typically migrate from higher elevations to lower elevations in the winter. The amount of winter range for elk in Teton Valley is limited and has characteristics more similar to mule deer habitat than elk habitat (IDGD 2019). Known locations of elk herds in the Teton Basin include a herd east and south of Victor, and a herd along the Teton River in Teton Basin (IDFG 2019). Elk may pass through the Property during seasonal migrations, and the agricultural meadows on the Property may be used in the winter as elk foraging areas. As part of the Teton Creek Corridor project native wildflowers and grasses have also been planted on the neighboring property to the west to provide winter forage for elk and improve elk winter range in the area.

On a larger scale the Property and CUP Area are mapped as low probability winter range for elk (IDFG 2020a; Appendix C). The CUP area is also mapped as low probability summer range for elk with low to moderate summer range for elk mapped across the central portion of the property from west to east (IDFG 2020a). There is also a low probability of elk migration corridors mapped across the Property and CUP area (IDFG 2020a).

MULE DEER

Mule Deer migrate seasonally from higher to lower elevations between summer and winter ranges. The entire Property is mapped as low probability mule deer winter range (IDFG 2020a; Appendix C). The Property and CUP area do not contain the south facing shrub dominated slopes that define mule deer winter range (TRLT 2006). The Property is also primarily mapped as low probability mule deer summer range with some moderate probability summer range in the southeast corner (IDFG 2020a). Maps of

mule deer migration corridors were not publicly available through IDFG; however, the riparian corridor where deciduous forest with dense shrub understory is present along Teton Creek would provide suitable habitat for mule deer migration with mule deer also passing through undeveloped areas and agricultural meadows.

MOOSE

Moose generally use deciduous and coniferous forests and wetland habitats with a shrub understory in close proximity to waterbodies for winter and summer range in Idaho (TRLT 2006). Based on the Property being entirely comprised of agricultural meadows it is unlikely that moose will use it as primary winter or summer range, but they may occasionally move through the Property. The riparian forest with shrub understory habitat located along Teton Creek north of the Property provides the most suitable habitat for moose in the area.

RAPTORS

There are no Bald Eagle nests on the Property, but there is suitable winter bald eagle habitat within a half mile of the Property in the cottonwood riparian forest corridor along Teton Creek which provides important roosting habitat for wintering bald eagles (TRLT 2006). However, the Property itself does not provide any roosting habitat for Bald Eagles.

Other raptors that may occur within half a mile of the Property include those classified as Species of Greatest Conservation Need (SGCN) by the Idaho Comprehensive Wildlife Strategy: Great Gray Owl, Ferruginous Hawk, Golden Eagle, and Short-eared Owl (IDFG 2017). The Teton Creek riparian corridor provides potential nesting habitat for these species, but the agricultural meadows on the Property do not provide suitable nesting habitat for these raptors and there are no known raptor nests located on the Property. Raptors are most likely to utilize the agricultural meadows on the Property as foraging habitat.

COLUMBIAN SHARP-TAILED GROUSE

Columbian Sharp-tailed Grouse tend to utilize shrub-bunchgrass dominated grasslands during the summer and riparian and mountain shrublands and aspen forests with shrub understory during the winter (TRLT 2006). While Columbian Sharp-tailed Grouse have the potential to occur on the Property, the Property does not provide suitable breeding habitat (raised knolls for leks) nor does it contain wintering habitat for Columbian Sharp-tailed Grouse as mapped by the Wildlife Habitat Overlay.

SONGBIRDS

Songbirds such as Western Meadowlarks and Savannah Sparrows likely to utilize the agricultural meadows on the Property for nesting and foraging habitat; however, there are no SGCN songbird species that are likely to nest on the Property or within the CUP area. The Teton Creek riparian corridor with forest and shrub cover located north of the Property would provide more adequate cover and forage for a diversity of nesting and wintering songbird species.

WATERBIRDS

Due to a lack of open water on the Property, Trumpeter Swans and other waterfowl are unlikely to breed on the Property or use the agricultural meadows as primary habitat. Some waterfowl species such as Canada Geese may temporarily stopover on the Property to forage, but the Property and CUP Area do not provide important breeding, migration, foraging or wintering habitat based on the Wildlife Habitat Overlay layers and documented site conditions. Trumpeter Swans are most likely to utilize portions of the Teton River located west of Driggs, while other waterfowl may utilize open water areas along Teton Creek.

GREATER SANDHILL CRANE

The Teton Basin in Idaho provides important staging areas for migrating Sandhill Cranes during the fall and spring with these areas primarily located to the west of Driggs (TRLT 2006). Sandhill Cranes may

incidentally occur on the Property, but the Property and CUP Area do not provide high quality breeding, migration, foraging or wintering habitat for Greater Sandhill Cranes.

LONG-BILLED CURLEW

Primary nesting and breeding habitat for Long-billed Curlews is limited to grassland habitats with vegetation heights ranging from 4-10 inches that also have nearby dense cover and fresh water sources (TRLT 2006). These conditions are not present on the Property, thus although an incidental observation of Long-billed Curlews may occur on the Property, the Property and CUP area are unlikely to provide important breeding habitat for Long-billed Curlews.

TROUT

Trout habitat does not occur on the Property due to a lack of open water. Teton Creek which is located within half a mile of the Property, however, does provide important spawning and rearing habitat for Yellowstone cutthroat trout (TRLT 2006).

IMPACT ANALYSIS & MITIGATION PLAN

The proposed Conditional Use Permit for a permanent campground that would provide housing for employees, participants of the farm incubator program, and farm guests would have negligible indirect impacts to indicator species and their habitats protected by the Teton County Wildlife Habitat Overlay. The proposed campground will be clustered in one location within agricultural meadows in the northwest corner of the Property where disturbance is already present from existing roads. This location would have the least amount of impact because utilities are already present in this portion of the Property, whereas additional disturbance for utilities would be required at an alternative location on the Property. Access to the campground will be along a driveway from existing road N 2000 E located to the west of the Property.

Proposed development will be located on agricultural meadow grassland vegetation and will not impact higher value or indicator wildlife habitat. Therefore, the conversion from agricultural meadow to a disturbed cover type will not detrimentally affect the food supply or cover provided by the nearby crucial wildlife habitat within the Teton Creek riparian vegetation corridor.

Direct impacts to indicator wildlife species due to the proposed development are a result of fragmentation of habitat and movement corridors. Direct effects will be marginal as the habitat affected is agricultural meadow (a relatively low value habitat) and the current proposed campground development will be clustered on the Property. The 1.15-acre low-density level of development planned for this area along with the presence of undeveloped lands in proximity to the Property will assure that ungulates and other wildlife will continue to find movement corridors through the Property and adjacent private lands. The human use recommendations listed in the section below are intended to help promote these continued movement corridors.

On a landscape scale, the location of the proposed CUP area is consistent with development occurring to the south of Teton Creek. Additional development impacts in the vicinity of the project area include the Teton Creek Corridor pathway and the future Targhee Ranch Estates Development. The ongoing Teton Creek Corridor project and associated recreational pathway will be located north of the road (Creek Bottom Trail) in the northwest corner of the Property and will not be impacted by development within the CUP area but may itself have recreational impacts to wildlife. In addition, the mapped Targhee Ranch Estates development located north of the Property would be more likely to have adverse impacts to wildlife in the vicinity of the Teton Creek Corridor than the 1.15 acre CUP area located south of and clustered with existing disturbance from roads and recreational pathways.

The short and long-term indirect impacts of this development depend more on human use and behavior (e.g. controlling domestic pets around wildlife, fencing, etc.) than on the actual change in land use from agricultural meadow to a campground for employee and guest housing.

There are no areas where the proposed development poses a threat to the water quality of a river, stream, waterbody or wetland.

Mitigation measures to avoid and minimize impacts include placing all development within the agricultural meadow vegetation cover type and clustering the campground in one location on the Property where disturbance from roads is already present and utilities are located. Additional impact minimization methods are detailed in the following Land Management Plan Section. No compensatory mitigation in the form of habitat creation is proposed since direct impacts to indicator wildlife habitat can be avoided and indirect impacts to indicator wildlife use of the Property will be minimal if the Land Management Plan is implemented as proposed.

LAND MANAGEMENT PLAN

The following recommendations will assist with maintaining the quality of habitat available on the Property for general vegetative health and for use by wildlife once development has occurred. The Property owner will be responsible for implementing and maintaining the management measures listed below. This may require daily maintenance or annual monitoring.

Lighting – Outdoor lighting will be designed to downcast. Bright lights will detrimentally affect wildlife movement and hinder avian species navigation abilities. Motion detector lights are encouraged, but they shall meet the requirements for floodlights and when not needed (e.g. the residence is unoccupied), lights will remain off for the benefit of wildlife.

Pet Control – Household pets (primarily dogs and cats) living on the Property will be contained in a designated, enclosed area and taught to not chase wildlife. The proximity of this Property to Teton Creek and Big Game Migration Corridors and Seasonal Range support the idea that even after development, the Property will remain important to wildlife. Uncontrolled pets (particularly dogs) that chase and harass wildlife have a detrimental effect on wildlife's survivability and use of an area.

Wildlife Friendly Fencing – All fences on the property will be designed to minimize impacts on indicator species' current use of the Property and habitat and built to sustain safe wildlife movement. Fencing shall be designed by a qualified person and consider adjacent land use. Guidelines will be followed as outlined in Teton County Idaho Zoning Ordinance, Title 9 Division 9-3-2 (C-2-c-WH-vi-b) (Teton County, 2013b). Native tree and shrub plantings for landscaping within the vicinity of the CUP Area will be temporarily fenced to allow plants to establish due to ungulate presence in the area. Fences for livestock (e.g. pig, goat) containment shall be clustered near development and not create wildlife movement barriers (i.e. bisect the Property).

DESIGN REVIEW

According to Teton County's *Wildlife Overlay and Wildlife Conservation Measures*, "building areas and associated infrastructure should be located outside of crucial habitats." The anticipated campground development in the northwestern corner of the Property will be located in agricultural meadow, which is a low-quality habitat for indicator wildlife species. Although this area is mapped within the Wildlife Habitat Overlay, the vegetative cover types present on the Property and within the CUP area do not provide crucial migration corridors or winter range for big game species, nor important songbird or raptor breeding and wintering habitat. Due to the location, existing low-quality habitat and proximity to open areas for wildlife movement, the proposed CUP campground area will not adversely impact wildlife movement corridors.

REFERENCES

- Merigliano, M. 2009. A Field Manual for Classified Vegetation in the Upper Snake River Valley. Teton Regional Land Trust. Teton County, ID.
- IDFG. 2017. Idaho State Wildlife Action Plan, 2015. Boise (ID): Idaho Department of Fish and Game. Grant No.: F14AF01068 Amendment #1. Available from: <http://fishandgame.idaho.gov/>. Sponsored by the US Fish and Wildlife Service, Wildlife and Sport Fish Restoration Program.
- IDFG. 2019. Statewide Report Fall 2019 Season Elk. Idaho Department of Fish and Game Boise, ID.
- IDFG. 2020a. Raster Layers for Elk Winter Range, Elk Summer Range, and Elk Migration Corridors, Mule Deer Winter Range and Mule Deer Summer Range. Accessed on 2020 July 21 at <https://data-idfggis.opendata.arcgis.com/datasets/elk-ranges>
- IDFG. 2020b. Idaho Species Diversity Database Species Observations. Accessed on 2020 July 21 at <https://idfg.idaho.gov/species/>
- TRLT. 2006. Wildlife Overlay and Wildlife Conservation Measures for Teton County, Idaho Technical Support Document. Teton Regional Land Trust. Teton County, ID.
- Teton County. 2013a. Teton County Idaho Zoning Ordinance Title 8. Rev. May 16, 2013. Teton County, ID.
- Teton County. 2013b. Teton County Idaho Zoning Ordinance Title 9. Rev. September 9, 2013. Teton County, ID.

APPENDIX A: FIGURES

Figure 1. Location Map

Figure 2. Existing Conditions

Figure 3. Wildlife Habitat Overlay

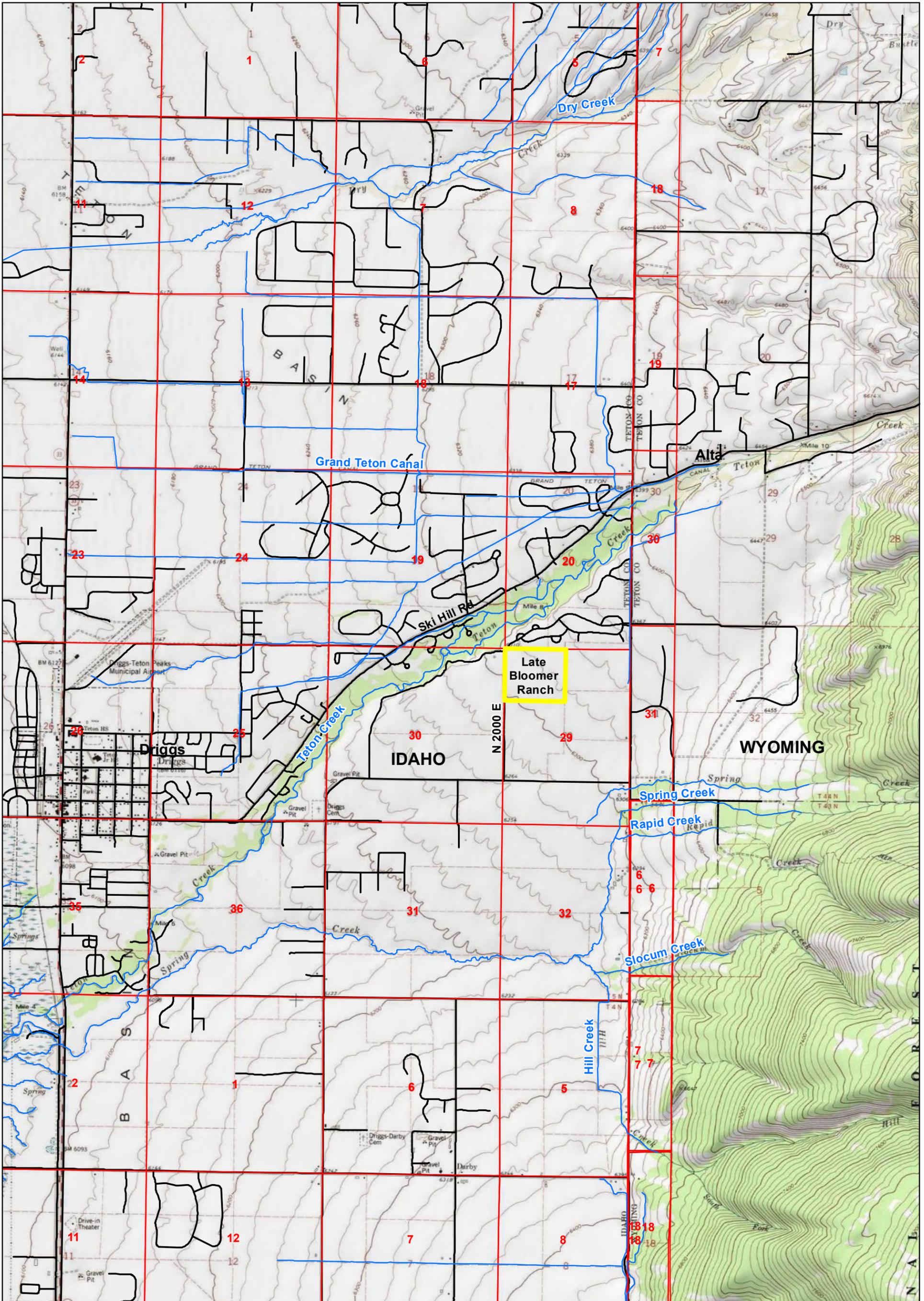


FIGURE 1

**Late Bloomer Ranch
WILDLIFE IMPACT
ANALYSIS**

979 N 2000 E
Driggs, ID
July 24, 2020

Legend

- Subject Property
- Roads
- NHD Flowline
- PLSS Section Lines

Sources

- Teton County ID
- Lots and Parcels
- Roads
- PLSS Section Lines
- ESRI
- Topographic Basemap
- USGS
- National Hydrography Dataset (NHD) Flowline

1 inch = 0.5 miles

 0 0.125 0.25 0.5 Miles



ALDERENVIRONMENTAL
 water | wetlands | ecological consulting

Jackson, WY alderenvironmental.com

Location

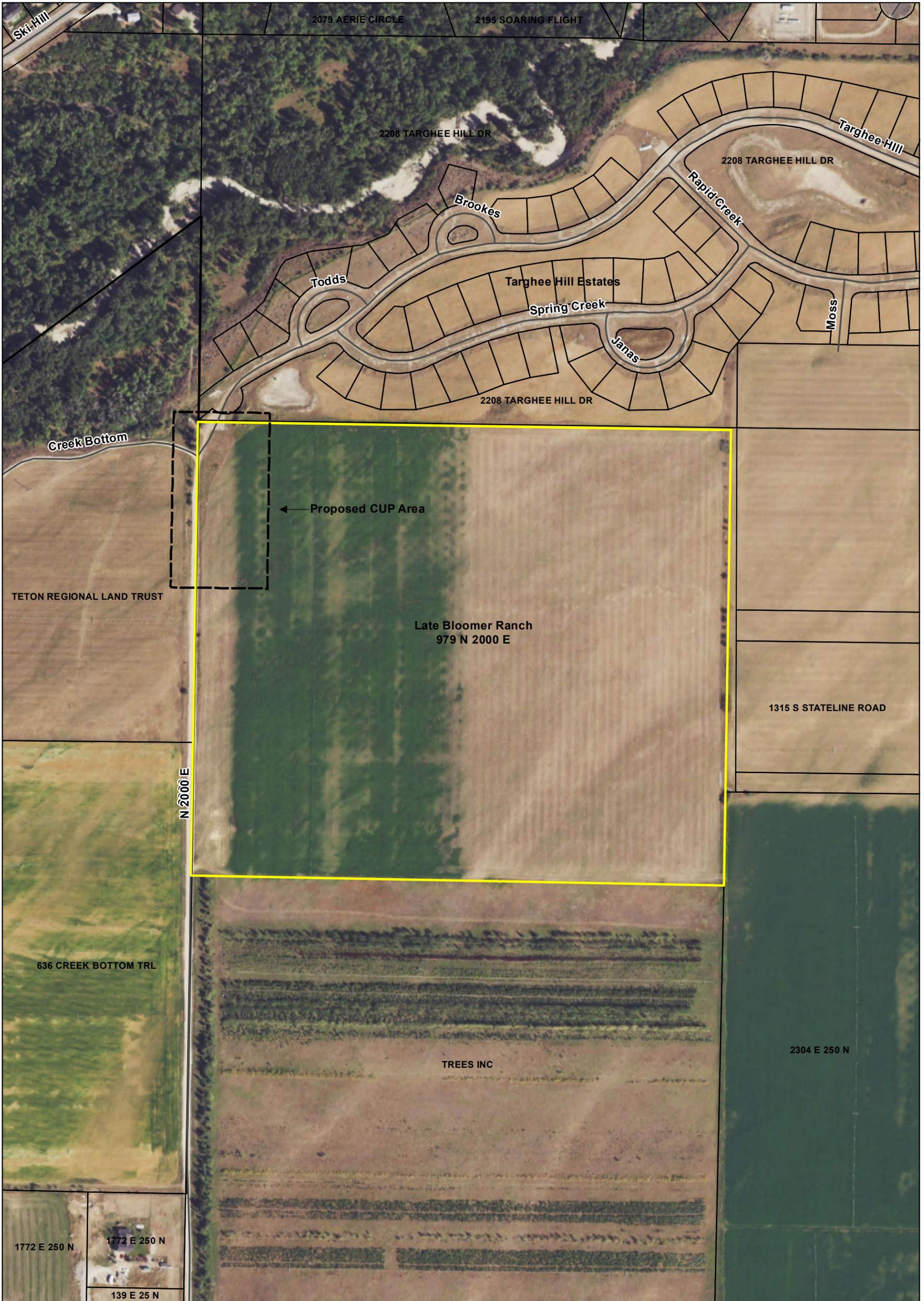


FIGURE 2

Existing Conditions

**Late Bloomer Ranch
WILDLIFE IMPACT
ANALYSIS**
979 N 2000 E
Driggs, ID
July 24, 2020

Legend

- Subject Property
- Proposed Conditional Use Permit (CUP) Area
- Lots & Parcels
- Roads

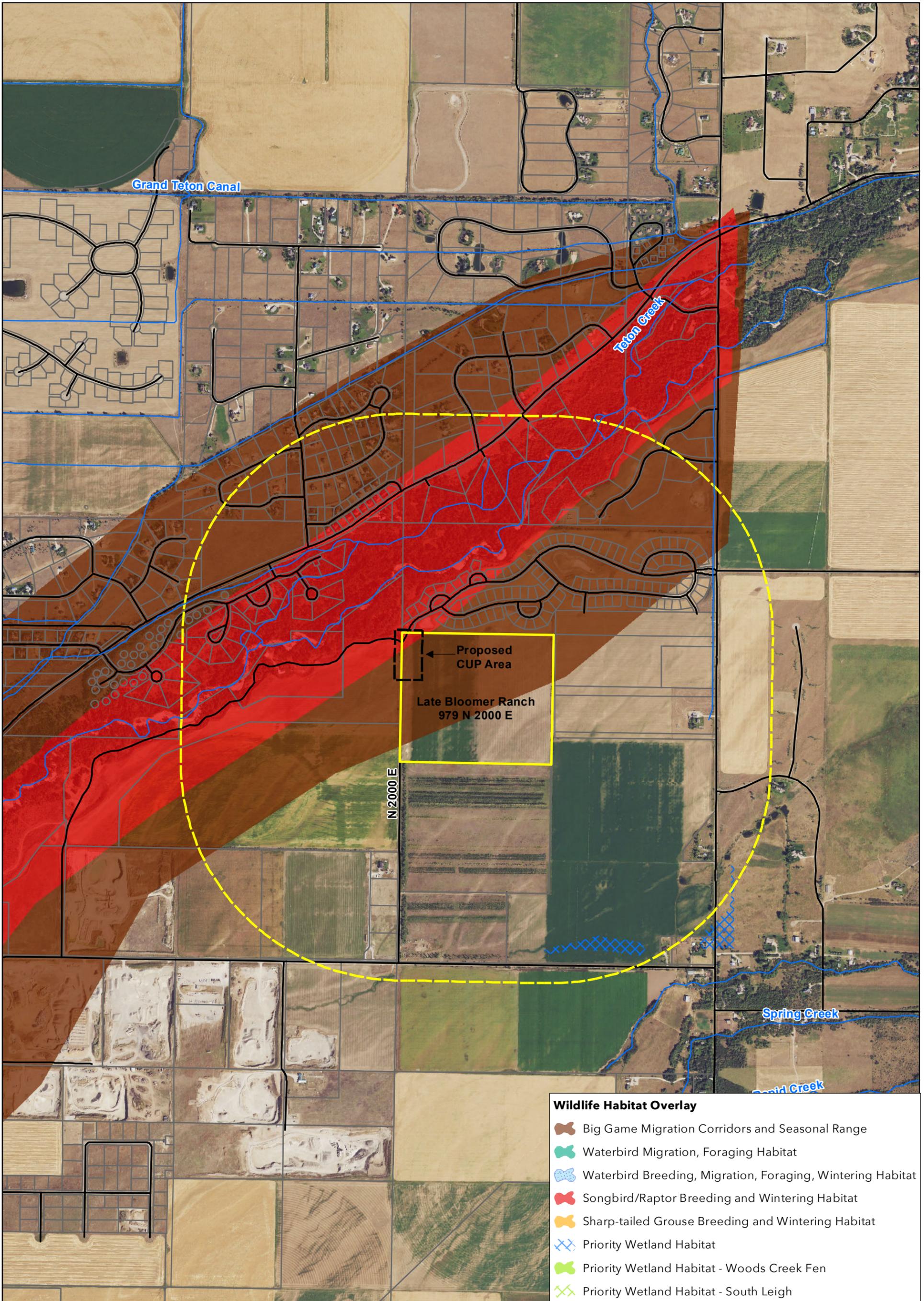
Sources

- Teton County ID
- Lots and Parcels
- Roads
- Late Bloomer Ranch
- Proposed CUP Area
- NAIP
- Aerial Imagery, 2019
- USGS
- National Hydrography Dataset (NHD) Flowline

1 inch = 300 feet
 0 75 150 300 Feet



ALDER ENVIRONMENTAL
 water | wetlands | ecological consulting
 Jackson, WY alderenvironmental.com



Wildlife Habitat Overlay

- Big Game Migration Corridors and Seasonal Range
- Waterbird Migration, Foraging Habitat
- Waterbird Breeding, Migration, Foraging, Wintering Habitat
- Songbird/Raptor Breeding and Wintering Habitat
- Sharp-tailed Grouse Breeding and Wintering Habitat
- Priority Wetland Habitat
- Priority Wetland Habitat - Woods Creek Fen
- Priority Wetland Habitat - South Leigh

FIGURE 3
Wildlife Habitat Overlay

**Late Bloomer Ranch
WILDLIFE IMPACT
ANALYSIS**
979 N 2000 E
Driggs, ID
July 24, 2020

Legend

- Subject Property
- Property 1/2 Mile Buffer
- Proposed CUP Area
- Lots & Parcels
- Roads
- NHD Flowline

Sources

- Teton County ID
- Lots and Parcels
- Roads
- Wildlife Habitat Overlay
- NAIP
- Aerial Imagery, 2019
- USGS
- National Hydrography Dataset (NHD) Flowline

1 inch = 0.2 miles

ALDER ENVIRONMENTAL
water | wetlands | ecological consulting
Jackson, WY alderenvironmental.com

APPENDIX B: PHOTOS

SITE PHOTOS – LATE BLOOMER RANCH



Photo 1. Looking northeast from the southwest Property corner (July 24, 2020).



Photo 2. Looking north from the southern edge of the proposed Conditional Use Permit (CUP) area (July 24, 2020).



Photo 3. Looking south toward the proposed CUP area from the intersection of Creek Bottom Trail and Targhee Hill Drive in the northwest corner of the Property (July 24, 2020).



Photo 4. Looking east along the northern Property boundary from the northwest corner of the Property (July 24, 2020).



Photo 5. Looking south from the northern property boundary and northeast corner of the proposed CUP area (July 24, 2020).



Photo 6. Looking west from the northern property boundary and northeast corner of the proposed CUP area (July 24, 2020).



Photo 7. Looking north at the proposed CUP area from near the southern boundary of the proposed CUP area (July 24, 2020).



Photo 8. Looking northwest towards the Teton Creek riparian corridor from the intersections of N 2000 E and Creek Bottom Trail (July 24, 2020).



Photo 9. Looking south at the proposed CUP area from near the northwest Property corner (July 24, 2020).



Photo 10. Looking southeast at the proposed CUP area from the intersection of N 2000 E and Creek Bottom Trail (July 24, 2020).

APPENDIX C: IDAHO DEPARTMENT OF FISH AND GAME ELK AND MULE DEER RANGE MAPS

Elk Ranges



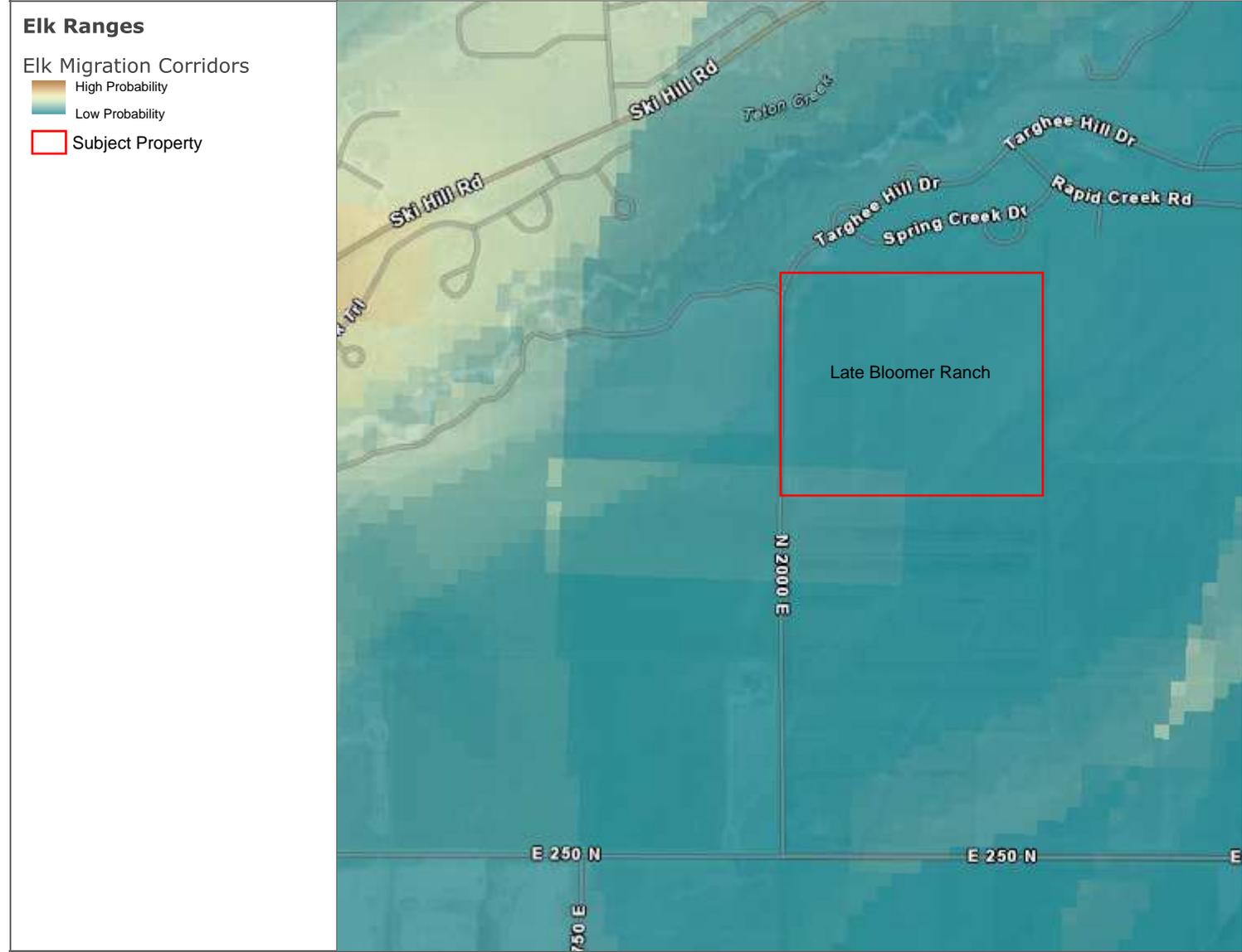
Seasonal range habitat suitability of Elk in Idaho.

Elk Ranges



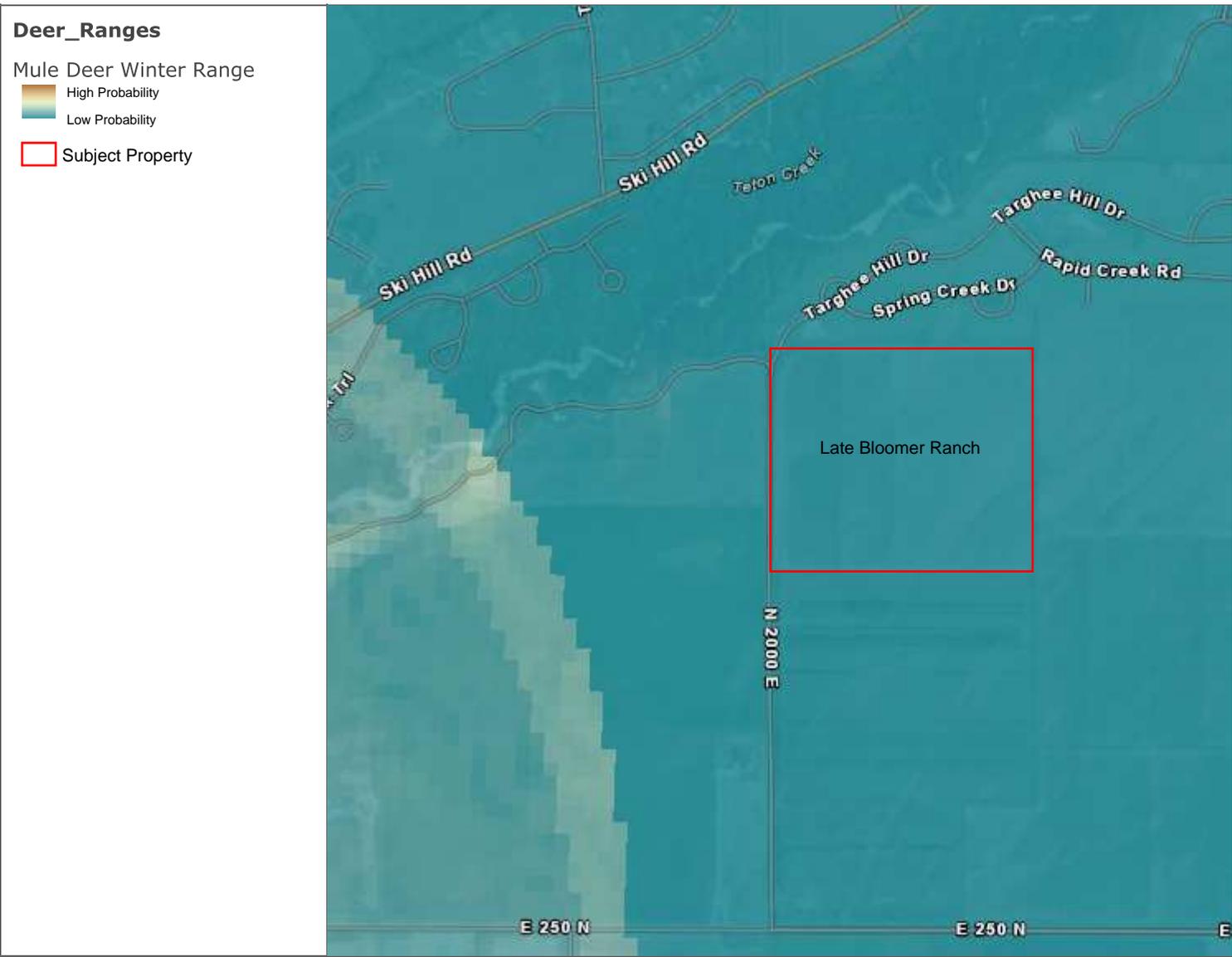
Seasonal range habitat suitability of Elk in Idaho.

Elk Ranges



Seasonal range habitat suitability of Elk in Idaho.

Mule Deer Ranges



Mule Deer Ranges

