



TOWN OF JACKSON PLANNING & BUILDING DEPARTMENT

TRANSMITTAL MEMO

Town of Jackson

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- ☐ Building
- ☐ Title Company
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- ☐ Planning Division

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- ☐ TC School District #1
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- ☐ Bresnan Communications

Special Districts

- ☐ START
- ☐ Jackson Hole Fire/EMS
- ☐ Irrigation Company

<p>Date: June 12, 2023</p> <p>Item #: P23-106</p> <p>Planner: Tyler Valentine</p> <p>Phone: 733-0440 ext. 1305</p> <p>Email: tvalentine@jacksonwy.gov</p> <p>Owner: 1400 South LLC PO Box 802523 Dallas, TX 75380</p> <p>Applicant: Mass & Surface Architecture 3968 Hawthorne Ln. Wilson, WY 83014</p>	<p style="text-align: center;">REQUESTS:</p> <p>The applicant is submitting an Environmental Analysis for 1400 & 1450 S Hwy 89, PIDNs: 22-40-16-05-2-00-010 and 22-40-16-05-2-00-012</p> <p>For questions, please call Tyler Valentine at 733-0440, x1305 or email to the address shown below. Thank you.</p>
<p>Please respond by: June 26, 2023 (Sufficiency) July 3, 2023 (with Comments)</p>	

RESPONSE: For Departments not using SmartGov, please send responses via email to:
planning@jacksonwy.gov



ENVIRONMENTAL ANALYSIS (EVA) APPLICATION

Planning & Building Department

Planning Division

150 E Pearl Ave.
P.O. Box 1687
Jackson, WY 83001

ph: (307) 733-0440
fax: (307) 734-3563
www.townofjackson.com

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Application # _____

APPLICABILITY. *This application should be used when applying for review of an **Environmental Analysis**. The purpose of the environmental analysis is to coordinate the application of all natural resource protection standards through identification of the natural resources on a site.*

When is an Environmental Analysis required?

An environmental analysis is required for all physical development, use, development option, or subdivision proposals that are subject to Division 5.1: General Environmental Standards, Division 5.2: Environmental Standards Applicable in Specific Areas, or Section 7.1.2, Planned Residential Development, unless the project qualifies for one of the exemptions listed in Subsection 8.2.2.B of the LDRs. If required, an environmental analysis must be completed prior to submittal of an application for the physical development, use, development option or subdivision proposed.

Do I need a Pre-Application Conference?

Yes, a Pre-Application Conference is required.

Pre-Application Conference # _____

PROJECT.

Name/Description: _____

Physical Address: _____

Lot, Subdivision: _____ PIDN: _____

APPLICANT/OWNER.

Name, Agency: _____ Phone: _____

Mailing Address: _____ ZIP: _____

E-mail: _____

QUALIFIED ENVIRONMENTAL PROFESSIONAL.

Name, Agency: _____ Phone: _____

Mailing Address: _____ ZIP: _____

E-mail: _____

DESIGNATED PRIMARY CONTACT.

_____Applicant/Owner _____Environmental Professional

SUBMITTAL REQUIREMENTS. *One copy of the application package (this form, plus all applicable attachments) should be submitted to the Planning Department. The initial application submittal may occur electronically, but one hard copy of all materials is required for an application to be found sufficient.*

Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications.

Have you attached the following?

_____ **Application Fee.** See the currently adopted Fee Schedule in the Administrative Manual for more information.

_____ **Notarized Letter of Authorization.** A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. If the owner is a partnership or corporation, proof that the owner can sign on behalf of the partnership or corporation is also required. Please see the Letter of Authorization template in the Administrative Manual for a sample.

_____ **Response to Environmental Analysis Pre-Application Conference Summary Checklist.** During the pre-application conference, you will be provided with a summary and checklist of applicable LDR standards and requirements that must be addressed for a sufficient application.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.



Signature of Owner or Authorized Applicant/Agent

6.09.23

Date

Name Printed

Title



Town of Jackson
 150 E Pearl Avenue
 PO Box 1687, Jackson, WY 83001
 P: (307)733-3932 F: (307)739-0919
 www.jacksonwy.gov

Date:

LETTER OF AUTHORIZATION **NAMING APPLICANT AS OWNER'S AGENT**

PRINT full name of property owner as listed on the deed when it is an individual OR print full name and title of President or Principal Officer when the owner listed on the deed is a corporation or an entity other than an individual

John Huffman, President of 1400 South LLC

Being duly sworn, deposes and says that 1400 South LLC is the owner in fee of the premises located at:
 Name of property owner as listed on deed

Address of Premises: 1400 & 1450 S Hwy 89

Legal Description: Pt SW1/4 NW1/4, Sec 5, Twp 40, Rng 116 - Parcels 22-40-16-05-2-00-010 & 22-40-16-05-2-00-012

Please attach additional sheet for additional addresses and legal descriptions

And, that the person named as follows: Name of Applicant/agent: Michael Ralph (Mass & Surface Architecture)

Mailing address of Applicant/agent: 3968 Hawthorne Lane Wilson, WY 83014

Email address of Applicant/agent: mr@massandsurface.com

Phone Number of Applicant/agent: 307-690-9527

Is authorized to act as property owner's agent and be the applicant for the application(s) checked below for a permit to perform the work specified is this(these) application(s) at the premises listed above:

- ☒ Development/Subdivision Plat Permit Application ☒ Building Permit Application
☐ Public Right of Way Permit ☒ Grading and Erosion Control Permit ☐ Business License Application
☒ Demolition Permit ☐ Home Occupation ☐ Other (describe) _____

Under penalty of perjury, the undersigned swears that the foregoing is true and, if signing on behalf of a corporation, partnership, limited liability company or other entity, the undersigned swears that this authorization is given with the appropriate approval of such entity, if required.

[Signature]
 Property Owner Signature

MANAGER

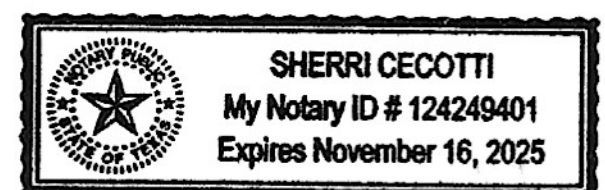
Title if signed by officer, partner or member of corporation, LLC (secretary or corporate owner) partnership or other non-individual Owner

STATE OF TEXAS)
) SS.
 COUNTY OF DALLAS)

The foregoing instrument was acknowledged before me by JOHN HUFFMAN this 22
 day of SEPTEMBER, 2022. WITNESS my hand and official seal.

[Signature]
 Notary Public

My commission expires:



ENVIRONMENTAL ANALYSIS

1400 South LLC

1400 & 1450 S Highway 89

Town of Jackson, WY

Parcels: 22-40-16-05-2-00-010

22-40-16-05-2-00-012



December 15, 2022

Prepared for:

1400 South LLC

P.O. Box 802523

Dallas, TX 75380-2523

Prepared by:

ALDERENVIRONMENTAL

water | wetlands | ecological consulting

Jackson, WY alderenvironmental.com

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INTRODUCTION

The purpose of this document is to provide an Environmental Analysis (EA) for the 1400 South LLC Property which consists of two adjacent parcels (the Property) in the Town of Jackson, WY. The Property is on a west facing slope within close proximity to Bridger-Teton National Forest and lies completely within the Natural Resources Overlay (NRO) (Appendix A – Figure 1). The Property is designated as crucial mule deer winter/yearlong range and elk winter range by Wyoming Game and Fish Department (WGFD). The Property itself also has steep west facing slopes and should be considered crucial mule deer winter habitat and therefore is confirmed to be within the NRO.

The landowner is proposing to build a four-story residential apartment building. This EA documents potential impacts to protected natural resources and wildlife habitat as a result of the proposed activities (Appendix A – Figure 5). The landowner is requesting that the Town of Jackson determines the proposed development complies with the Town of Jackson LDRs, Div. 5.2 *Environmental Standards Applicable in Specific Areas*.

METHODS

Alder Environmental staff inventoried the natural resources and existing conditions within the Property on October 3, 2022. Wildlife habitat and vegetative cover types were mapped based on the site visit, Wyoming Game and Fish Department (WGFD) wildlife layers, relevant mule deer studies, and the 2017 Teton County Focal Species Habitat Mapping Project (Alder, 2017). Figure 2 displays the existing conditions and vegetative cover types present within the Property. Photos of current conditions of the Property are provided in Appendix B.

HABITAT INVENTORY

SITE CONDITIONS

In this analysis, the Property includes two parcels. The north parcel is 1.69 acres and shares property boundaries with the south parcel on two sides. Highway 89 is adjacent to the western boundary of both parcels. Existing development on the north parcel consists of an office, driveway, parking areas, and landscaping. The property is also used to store vehicles. The south parcel consists of 1.86 acres and contains a building (daycare facility), parking areas, landscaping, and vehicle storage. Both parcels are in the Town of Jackson and zoned CR-3.

Both parcels lie within the NRO due to steep west facing slopes with non-mesic shrub and non-mesic tall shrub that provide winter range for mule deer and elk.

VEGETATIVE COVER TYPES

Town of Jackson Land Development Regulations state that development should be located to avoid higher quality habitats or vegetative cover (LDR 5.2.1.E.1 *Minimizes Wildlife Impact*). However, the Town of Jackson LDRs do not define higher quality vegetative cover types, so this report defers to the types and ordinal rankings as defined in the Teton County LDRs (LDR 5.2.1.F, *Vegetative Cover Type Standards*).

The Property's vegetative cover consists of non-mesic shrub, non-mesic grassland, non-mesic tall shrub, juniper, lawns and landscaping, disturbed grassland, and disturbed areas (Appendix A – Figure 2). Non-mesic shrub comprises the largest portion of the Property with abundant big sagebrush (*Artemisia tridentata*) and rubber rabbitbrush (*Ericameria nauseosa*) intermixed with native grass and forb species.

The following is a summary of the vegetative cover types on the Property, including their Ordinal Ranking values.

Table 1. Vegetative Cover Types within the Property and Habitat Priority Ordinal Ranking

VEGETATIVE COVER TYPE	AREA (ACRES)	% OF TOTAL AREA	HABITAT PRIORITY ORDINAL RANKING (10 BEING THE HIGHEST VALUE)
Non-Mesic Tall Shrub	0.41	12%	8
Juniper	0.02	<1%	6
Non-Mesic Shrub	0.93	26%	6
Non-Mesic Grassland	0.11	3%	3
Lawn & Landscaping	0.36	10%	1
Disturbed Grassland	0.85	24%	1
Disturbed	0.87	25%	NA
TOTAL	3.55	100%	

Tall Shrub

A total of 0.41 acres (12%) of the Property consists of non-mesic tall shrub cover type dominated by serviceberry (*Amelanchier alnifolia*), chokecherry (*Prunus virginiana*), snowberry (*Symphoricarpos albus*), forbs, and bunchgrasses. Tall shrub cover types have an ordinal ranking of 8 due to their value as wildlife habitat and browse for ungulates.

Juniper

A total of 0.02 acres (1%) of the Property contains juniper cover type (non-mesic, coniferous forest) consisting of widely spaced Rocky Mountain juniper (*Juniperus scopulorum*) with a forb and bunchgrass understory. This cover type has an ordinal ranking of 6 due to its value as wildlife habitat, and though it comprises a small area of the Property, it is connected to a larger area of juniper upslope from the Property.

Non-Mesic Shrub

The dominant cover type on the Property is non-mesic shrub, with a total of 0.93 acres or 26% cover and comprising most of the undeveloped slopes of East Gros Ventre Butte on the Property. Big sagebrush (*Artemisia tridentata*) and rubber rabbitbrush (*Ericameria nauseosa*) dominate with abundant forb and bunchgrass species as well. This cover type has an ordinal ranking of 5 due to its importance for wildlife habitat, particularly for mule deer crucial winter habitat.

Non-Mesic Grassland

A total of 0.11 acres (3%) of the Property consists of non-mesic grassland made up of native and non-native grasses. This cover type has an ordinal ranking of 3 and also provides valuable winter habitat for mule deer.

Lawns & Landscaping/Disturbed Grassland/Disturbed

A total of 0.36 acres (10%) of the Property consists of lawns and landscaping. A total of 1.72 acres (48%) of the Property is existing development with structures, driveways, parking areas, and a disturbed grassland slope. These areas have an ordinal ranking of 1.

PROTECTED WATER BODIES AND WETLANDS

There are no waterbodies or wetlands on the Property.

WILDLIFE HABITATS PROTECTED BY THE NRO

Alder conducted an ecological review of the Property and Wyoming Game and Fish Department (WGFD) designated wildlife habitat to determine protected wildlife resources. Alder's review indicates that the Property provides habitat for Teton County and the Town of Jackson protected wildlife species, mule deer and elk winter range. The western facing slopes on the Property are designated as mule deer and elk crucial winter habitat by Wyoming Game and Fish Department (WGFD) and protected by the Town of Jackson (LDR Section 5.2.1.F, *Crucial Habitat Protection Standards*) (Figure 3). The 2017 Teton County

Focal Species Habitat Mapping Project confirms that the Property provides valuable habitat for these two species (Alder, 2017). Table 2 summarizes the Town of Jackson protected habitat and their associated wildlife species within 0.5 miles of the Property.

Table 2. Habitat Types Protected by the NRO and Presence within 0.5 Miles of the Property.

HABITAT TYPE	PRESENCE IN THE PROPERTY	PRESENCE WITHIN ½ MI OF PROPERTY
Moose Crucial Winter Habitat	Possible	Possible
Elk Migration Corridors	No	Yes
Elk Crucial Winter Range	Yes	Yes
Mule Deer Migration Corridors	Yes	Yes
Mule Deer Crucial Winter Range	Yes	Yes
Trumpeter Swan Nesting Habitat	No	Possible
Trumpeter Swan Winter Habitat	No	Possible
Snake River Cutthroat Trout Spawning Areas	No	Yes
Bald Eagle Nesting Habitat	No	No
Bald Eagle Crucial Winter Habitat	Yes	Yes

Moose – Crucial Winter Habitat

The Property does not contain WGFD designated crucial moose winter range (WGFD, 2012). Moose rely on palustrine-shrub or forest habitats, cottonwood, cottonwood/spruce, or subalpine fir forest, and, less frequently, xeric, and mesic sagebrush grasslands, and mixed shrub habitat. The non-mesic tall shrub habitat could be used by moose in the harder winter months. Additionally, the 2017 Teton County Focal Species Habitat Mapping Project identified a small area on the Property on the southeast corner as suitable winter habitat for moose. However, the area's close proximity to residential and commercial development and S Highway 89 might render winter use less hospitable.

Mule Deer – Crucial Winter Range & Migration Corridors

The Town of Jackson LDRs identify the west slopes along WY Highway 89 above and to the east of South Park as one of the five primary areas of mule deer crucial winter range which generally occurs at low elevations in shrub scrub-grassland habitat types (LDR Section 5.2.1.C.3, *Mule Deer*). WGFD designated crucial mule deer winter range/yearlong range is mapped within the Property (WGFD, 2012). Additionally, the 2017 Teton County Focal Species Habitat Mapping Project indicates that mule deer winter habitat and migration route exist on the Property (Alder 2017). Mule deer winter range is characterized by sagebrush or mesic shrub slopes (Riginos et al. 2013). The west facing slopes of the Property, dominated by mesic shrub and grasslands, provide winter habitat. The Property is also designated as spring/summer/fall habitat for mule deer by WGFD and extensive signs of mule deer including game trails and scat were observed during the October 2022 site visit.

A mule deer GPS collar study tracked the movement ecology of 40 mule deer between December 2010 and 2012 (Riginos et al. 2013). This study indicated that 25% of all mule deer crossings occurred just north of the Property, between High School Butte and the southern end of the Elk Refuge Road (Figure 4). The study demonstrated that mule deer do not avoid roadways and busy areas in close proximity to high quality winter habitat. There were 41 documented mule deer crossings near the Property at mile marker 152. The study also indicated that mule deer road crossings were more likely to occur in areas with no fence along either side of the road (Riginos et al. 2013). The Property currently contains and provides access to mule deer crucial winter range.

Elk Winter Range & Migration Corridors

WGFD designated elk crucial winter range and a migration route are mapped on the Property. The 2017 Teton County Focal Species Habitat Mapping Project indicates ungulate migration routes through the Property (Alder 2017). Elk generally use grassland and shrub habitats with interspersed

forests during the winter months (Boyce et al. 2003). The Property currently contains and provides access to elk crucial winter range.

Trumpeter Swan – Crucial Winter Habitat & Nesting Habitat

Suitable Trumpeter Swan winter habitat does not exist on the Property. Winter Trumpeter Swan surveys conducted by Wyoming Game and Fish Department (WGFD) in 2013, 2015, and 2018 documented one Trumpeter Swan sighting within 0.5 mile of the Property to the southwest on Flat Creek (Figure 3) (data provided to Alder by S. Patla, WGFD). Flat Creek Flows north to south to the west of the Property across from S Highway 89. Portions of Flat Creek provide suitable winter habitat for Trumpeter Swans. The 2017 Teton County Focal Species Habitat Mapping Project indicates Trumpeter Swan winter habitat along the Flat Creek corridor to the southwest of the Property (Alder 2017).

Snake River Cutthroat Trout – Spawning Habitat

Snake River Cutthroat Trout spawning habitat does not exist on the Property, but within a 0.5-mile radius of the Property due to the location of Flat Creek. Flat Creek has Snake River Cutthroat Trout spawning habitat and is designated by WGFD. The 2017 Teton County Focal Species Habitat Mapping Project also identifies Flat Creek as providing suitable spawning habitat (Alder 2017). Cutthroat trout generally spawn in cold, well oxygenated streams with gravel bottoms.

Bald Eagle – Crucial Winter Habitat & Nesting Habitat

No Bald Eagle nests have been documented within 0.5 miles of the Property. The nearest nest is located 0.75 miles to the northwest. The Property contains crucial elk and mule deer winter habitat, which provides Bald Eagle with carrion during winter months. Therefore, the Property contains Bald Eagle crucial winter habitat (LDR Section 5.2.1.C.7, *Bald Eagle*).

THREATENED AND ENDANGERED SPECIES

Of the current list of federally threatened and endangered species for Teton County, WY (Table 3) (USFWS, 2021), none are expected to nest or breed on the Property.

Table 3. Threatened and Endangered Species of Teton County, WY in Jackson Hole Valley (USFWS, 2021)

SPECIES	STATUS	PRESENT ON PROPERTY
Birds		
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	No
Insects		
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	Possible
Fish		
None		No
Mammals		
Canada Lynx (<i>Lynx Canadensis</i>)	Threatened	No
Grizzly Bear (<i>Ursus arctos horribilis</i>)	Threatened	Possible, Incidental Use
North American Wolverine (<i>Gulo gulo luscus</i>)	Proposed Threatened	No
Plants		
Whitebark pine (<i>Pinus albicaulis</i>)	Proposed Threatened	No

The Yellow-billed Cuckoo range in Wyoming is within woody, riparian areas with dense understory vegetation (Bennett and Keinath 2003). It is not expected to occur on the Property due to a lack of riparian areas with dense understory habitat.

Canada lynx are known to use subalpine coniferous forests with extensive horizontal cover that also support snowshoe hare populations (Squires et al. 2010). This species is unlikely to occur on the Property.

Protections for grizzly bears within the Greater Yellowstone Ecosystems were recently restored in September 2018. The distribution of grizzly bears within the Greater Yellowstone Ecosystem has expanded throughout Teton County in recent years (Bjornlie and Haroldson 2018). Grizzly bear habitat exists on the Property. However, the Property's proximity to downtown development implicates that meaningful habitat is not present and wildlife managers do not encourage grizzly bear use in residential and urban areas.

Whitebark pine was not observed in the Study Area during the 2021 site inventory and is not expected to grow on lower elevation slopes.

Monarch butterflies visit the Rocky Mountains during the summer months on their migration to overwintering sites, like Mexico and California. Monarchs depend on diverse nectar sources including species found in mesic shrub and mesic grasslands: Sulphur-flower buckwheat (*Eriogonum umbellatum*), Canada goldenrod (*Solidago canadensis*) and Rubber rabbitbrush (*Ericameria nauseosa*) (Fallon et al. 2016).

DEVELOPMENT IMPACT ASSESSMENT

DESCRIPTION OF PROPOSED DEVELOPMENT

The applicant is proposing to build a 191-unit apartment complex with a parking garage. The proposed development will directly impact predominantly low-quality habitats: lawn and landscaping, disturbed grassland, and disturbed areas with minor impacts (0.03 ac) to higher quality habitats (non-mesic shrub and non-mesic tall shrub) (Appendix A – Figure 5). The development will indirectly impact elk and mule deer movement, creating a movement barrier to high quality habitat above and to the east of the Property.

PROTECTED RESOURCES & HABITAT SETBACKS/BUFFERS

The proposed development area is located outside of any protected natural resource setbacks. A small portion of the proposed development will impact higher quality habitats (non-mesic shrub and non-mesic tall shrub). Mitigation for loss of these habitats will be required according to Town of Jackson LDRs 5.2.E.2. *Habitat Enhancement*.

HABITAT IMPACT ASSESSMENT

Even though the proposed development area and driveway do not significantly impact high quality vegetative cover, the development is located within crucial mule deer and elk winter habitat. Within their crucial winter habitat, mule deer depend heavily on mesic sagebrush-grasslands and mixed shrub types (Town of Jackson 2018). The slopes to the east of S Highway 89 provide crucial winter habitat for mule deer with west facing slopes dominated by sagebrush (*Artemisia tridentata*) and rubber rabbitbrush (*Ericameria nauseosa*) (Alder 2017).

The proposed development area will create a movement barrier or obstacle for wintering mule deer to access valuable habitat, including non-mesic shrub and tall shrub. Existing human activity on the Property already impacts the wildlife but provides more permeability for wildlife movement. The proposed development will increase human activity and decrease mule deer access to crucial winter range in a highly trafficked wildlife area.

A summary of the potential habitat impacts is provided in Table 4.

Table 4. Assessment of the proposed development impacts to wildlife habitat and protected resources.

HABITAT IMPACTS	DEVELOPMENT IMPACTS	DESCRIPTION OF AREA	PROTECTED HABITAT IMPACTED
Areas rendered unusable by proposed development for protected species	Partial	The development area is primarily located in disturbed cover types and partially located in non-mesic shrub, non-tall shrub, and non-mesic grassland habitat (Appendix A – Figure 5).	Crucial Mule Deer and Elk Winter Range and Crucial Bald Eagle Winter Habitat
Areas impacted, degraded, or fragmented to the extent they no longer support long-term use by protected species	Yes	Development will create a movement barrier to high quality winter habitat.	Crucial Mule Deer and Elk Winter Range
Areas unaffected by proposed development where the quality of wildlife habitat is maintained	Yes	Non-mesic tall shrub, non-mesic shrub, juniper, and non-mesic grassland are located outside of the development area.	Crucial Mule Deer and Elk Winter Range and Crucial Bald Eagle Winter Habitat
Areas enhanced as wildlife habitat relative to current conditions	Yes	Habitat enhancement areas or wildlife mitigation measures will be determined later based on impacts to higher ranking habitats as a result of the proposed impacts.	Crucial Mule Deer and Elk Winter Range
Areas where development poses a threat to the water quality of protected waterbodies and wetlands	Possible	None. There are not any wetlands and waterbodies located on the Property. Stormwater runoff should be retained and treated.	Flat Creek
Locations where protected species may be displaced to by proposed development and the new location's habitat suitability for survival of affected species	Yes	Mule deer will no longer have access through the Property to high quality winter habitat.	Crucial Mule Deer and Elk Winter Range

PROJECT VICINITY IMPACT STATEMENT

To the north of the Property are commercial properties. To the east and south are undeveloped properties owned by private landowners. These properties border Bridger-Teton National Forest to the east. South Highway 89 borders the western boundary of the Property with commercial properties on the other side. The proximity of S Highway 89 and existing dense commercial properties negatively affect wildlife species. Daily and seasonal movements of wildlife will be impacted within the Property due to the proposed activities will contribute to the cumulative impacts of other properties and uses within the vicinity.

Alder proposes to construct a wildlife exclosure fence east of the proposed building and to impose winter human use closures on the eastern half of the Property to help mitigate negative impacts to wildlife. See more details under Wildlife Mitigation Measures.

HUMAN USE RECOMMENDATIONS

The following recommendations would assist with improving the quality of habitat available on the Property for use by wildlife once development has occurred.

Lighting – Bright lights will detrimentally affect wildlife movement and hinder avian species navigation abilities (Section 5.3.1 *Exterior Lighting Standards*). Motion sensor lights should be discouraged and when not needed (e.g., the residence is unoccupied), lights should remain off for the benefit of wildlife. Bare light bulbs should be shielded from direct view when they can be seen from 5 feet above the ground and light fixtures shall be arranged to shine at an angle less than 90 degrees.

HABITAT ENHANCEMENT PLAN

Higher habitat value areas permanently impacted by future development and rendered unusable to wildlife will require mitigation in the form of habitat enhancements. Higher value vegetative cover types include non-mesic tall shrub and non-mesic shrub and if impacted, will require mitigation by the Town of Jackson Planning Department at a 2:1 spatial ratio (mitigation to impact) per the Town of Jackson Land Development Regulations (Section 5.2.1.E, Impacting the NRO). Table 5 summarizes the existing vegetative cover within the proposed development area and access driveway.

Table 5. Vegetative cover types within the development area and access driveway

COVER TYPE (ORDINAL RANKING)	DEVELOPMENT IMPACTS (AC)	REQUIRED MITIGATION 2:1 (AC)
Non-mesic Tall Shrub (8)	0.02	0.04
Non-mesic Shrub (5)	0.01	0.02
Non-mesic Grassland (3)	0.07	NA
Lawn & Landscaping (1)	0.31	NA
Disturbed Grassland (1)	0.64	NA
Disturbed (1)	0.86	NA
TOTAL	1.91	0.06

Future mitigation will be required due to permanent vegetative cover impacts from the development area. Because the direct impacts to high quality habitat are minor (0.03 ac), the required mitigation (0.06 ac) would not provide a significant improvement to wildlife habitat on the Property. Alder proposes that mitigation also account for the indirect impacts to wildlife movement in the section below.

WILDLIFE MITIGATION MEASURES

Additional to habitat enhancement shrub plantings, Alder recommends providing measures to mitigate development impacts and prevent negative human-wildlife interactions. These measures include constructing a wildlife enclosure fence to the immediate east of the proposed building (Appendix A – Figure 5). In order to avoid vehicle collisions with wildlife (particularly mule deer) and to prevent negative human-wildlife interactions, Alder proposes that the applicant construct a wildlife barrier fence to separate the proposed development from high quality mule deer and elk winter habitat. The fence must be at least 8 ft tall and impermeable (i.e., made of wire mesh or wood slats). The fence will guide mule deer to safer (better visibility) and less populated areas to cross S Highway 89. Additionally, Alder proposes enacting a human use winter closure on the slopes to the east of the proposed development. An official winter closure will prevent humans and pets from disturbing mule deer during harsh winter months when they need to conserve their energy. These two measures should help to mitigate for the proposed development and prevent harmful impacts to protected wildlife species.

Alder will provide a Habitat Enhancement Plan to provide specifications on the wildlife enclosure fence, winter closure, and shrub plantings for habitat enhancement. Final permanent development impacts will be determined during the grading and building plan design and included in the Habitat Enhancement Plan will. A surety estimate will accompany the final Habitat Enhancement Plan.

REFERENCES

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APPENDIX A: FIGURES

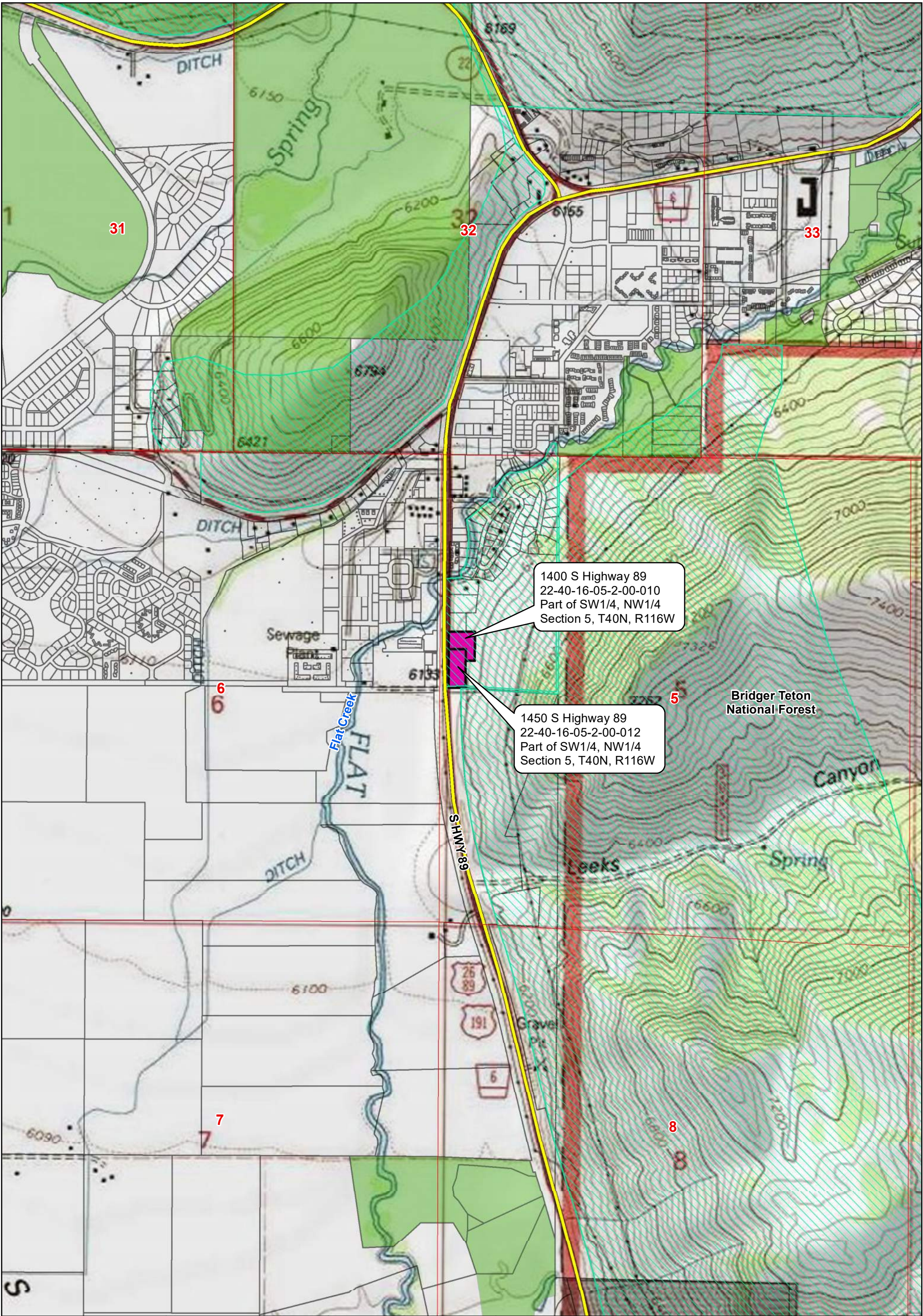
Figure 1. Location

Figure 2. Vegetative Cover

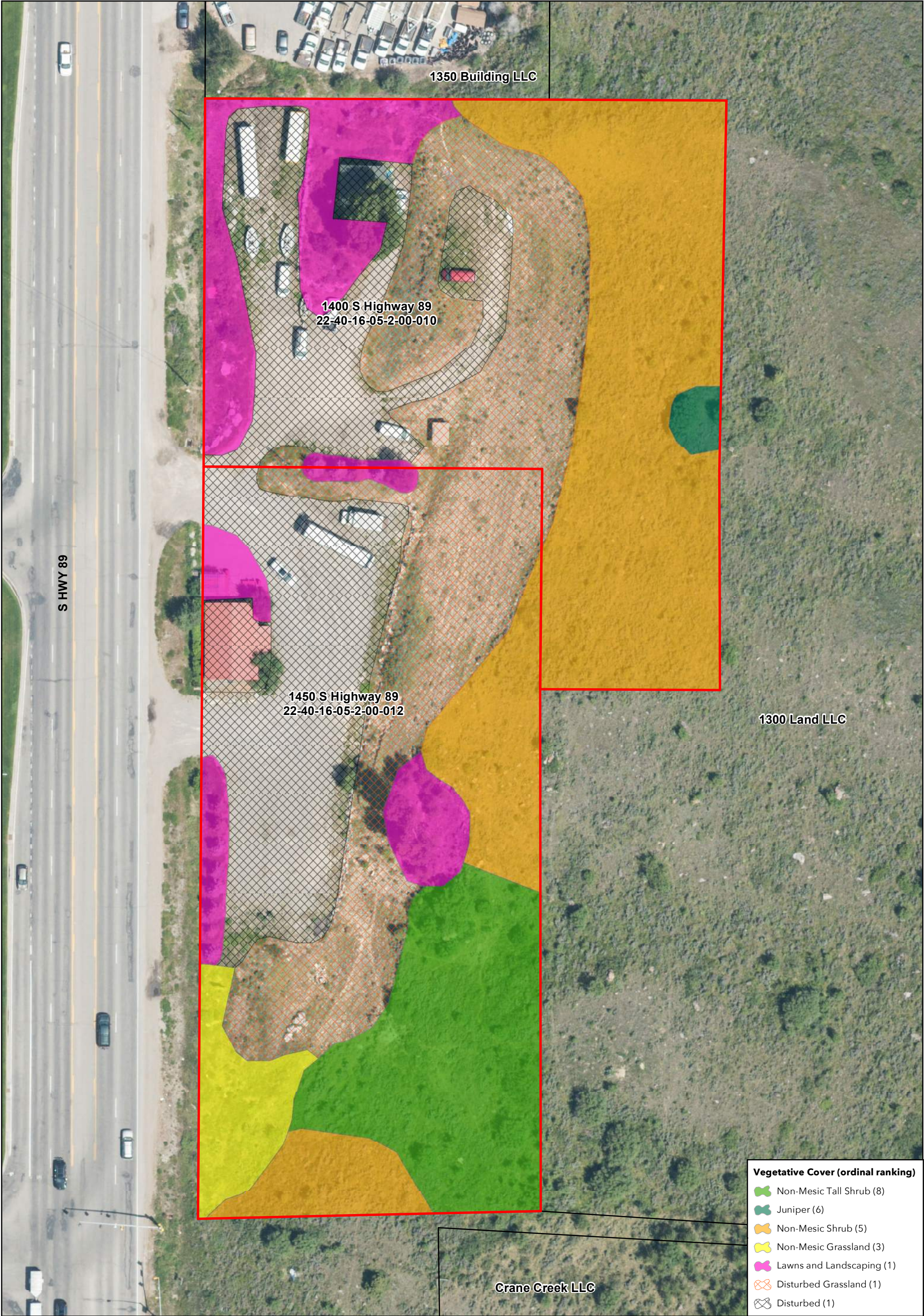
Figure 3. Protected Wildlife Resources

Figure 4. Mule Deer Migration Patterns

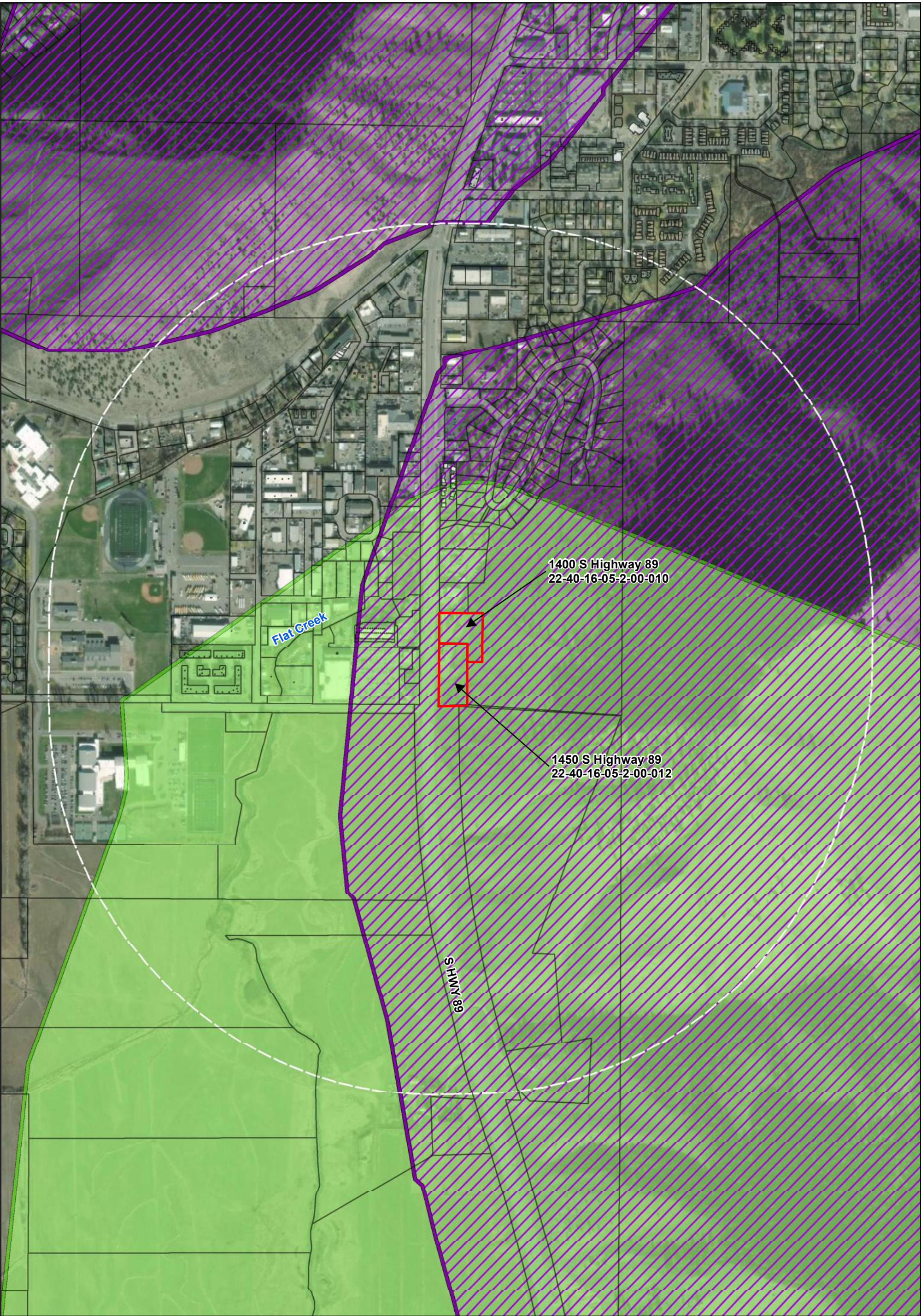
Figure 5. Proposed Activities



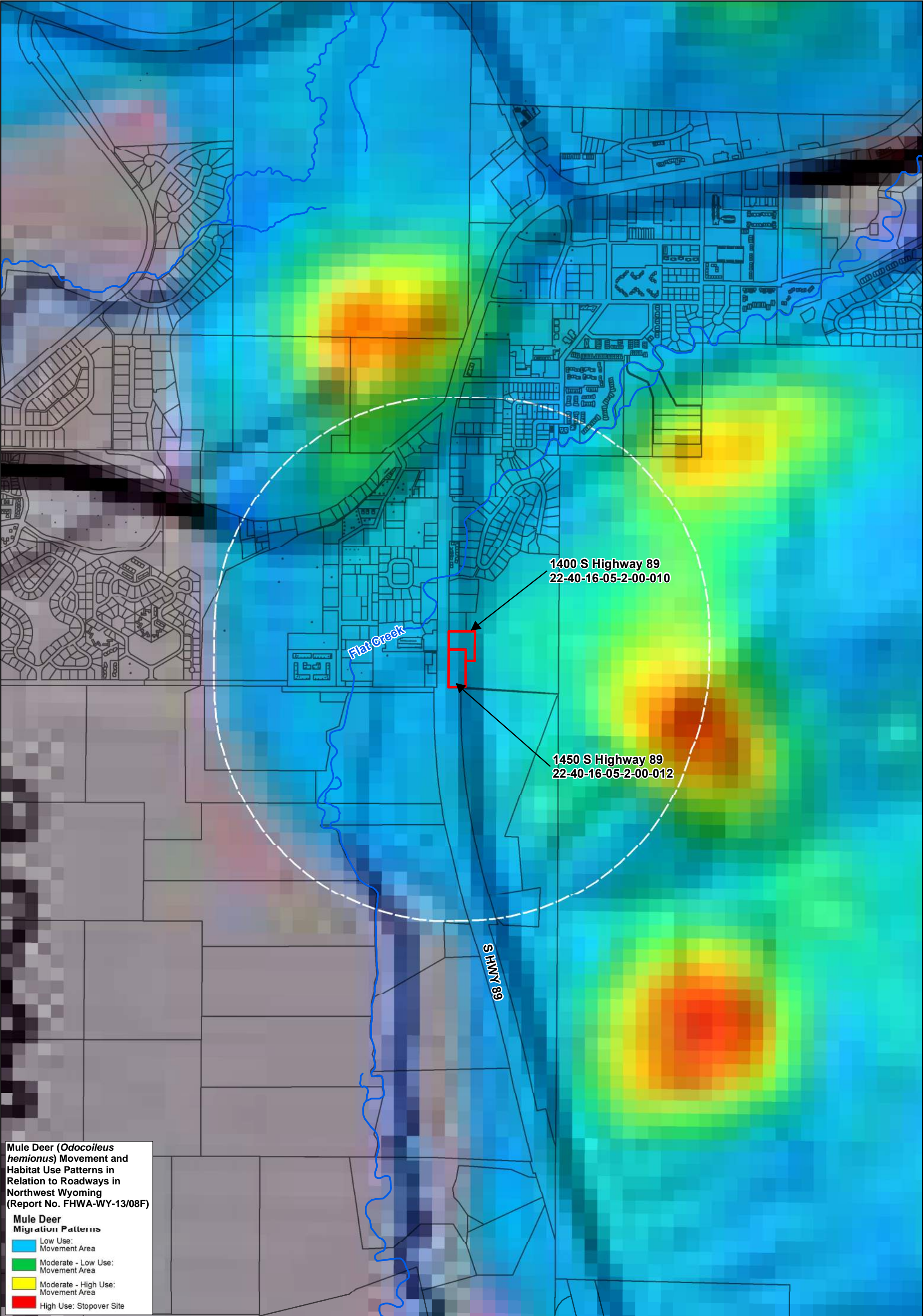
<p>Figure 1</p> <p>Location</p> <p>December 15, 2022</p>	<p>1400 South LLC ENVIRONMENTAL ANALYSIS</p> <p>1400, 1450 S HWY 89</p> <p>Teton County, WY</p>	<p>Legend</p> <ul style="list-style-type: none">PLSS Section LinesState & County RoadsNatural Resources OverlayJHLT Conservation EasementSubject PropertyLots & Parcels	<p>Sources</p> <ul style="list-style-type: none">ESRITopographyTeton CountyOwnership BoundariesRoadsPLSS Section Lines	<p>1 inch = 1,000 feet</p> <p>0 250 500 1,000 Feet</p> <p>ALDERENVIRONMENTAL</p> <p>water wetlands ecological consulting</p> <p>Jackson, WY alderenvironmental.com</p>
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<p>Figure 2</p> <p>Vegetative Cover</p> <p>December 15, 2022</p>	<p>1400 South LLC ENVIRONMENTAL ANALYSIS</p> <p>1400, 1450 S HWY 89</p> <p>Teton County, WY</p>	<p>Legend</p> <ul style="list-style-type: none">Subject PropertyLots & Parcels	<p>Sources</p> <p>TETON COUNTY</p> <ul style="list-style-type: none">- Aerial Imagery, June 2019- Ownership BoundariesAlder Environmental, LLC- Vegetative Cover (9/28.22)Mass & Surface Architecture- Site Plan- 25% Slope Line- Limits of Disturbance	<p>1 inch = 50 feet</p> <p>0 12.5 25 50 Feet</p> <p>ALDERENVIRONMENTAL</p> <p>water wetlands ecological consulting</p> <p>Jackson, WY alderenvironmental.com</p>
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<p>Figure 3</p> <p>Protected Wildlife Resources</p> <p>December 15, 2022</p>	<p>1400 South LLC ENVIRONMENTAL ANALYSIS</p> <p>1400, 1450 S HWY 89</p> <p>Teton County, WY</p>	<p>Legend</p> <ul style="list-style-type: none"> Subject Lots & Parcels 0.5 mile Buffer Mule Deer Crucial Winter/Yearlong Range Elk Crucial Winter	<p>Sources</p> <p>Teton County</p> <ul style="list-style-type: none">- Aerial Imagery, June 2019- Ownership Boundaries <p>WY Game and Fish Dept. (WGFD)</p> <ul style="list-style-type: none">- Elk & Mule Deer Crucial Winter/Yearlong Range	<p>1 inch = 600 feet</p> <p>0 150 300 600 Feet</p> <p>N</p> <p>ALDERENVIRONMENTAL</p> <p>water wetlands ecological consulting</p> <p>Jackson, WY alderenvironmental.com</p>
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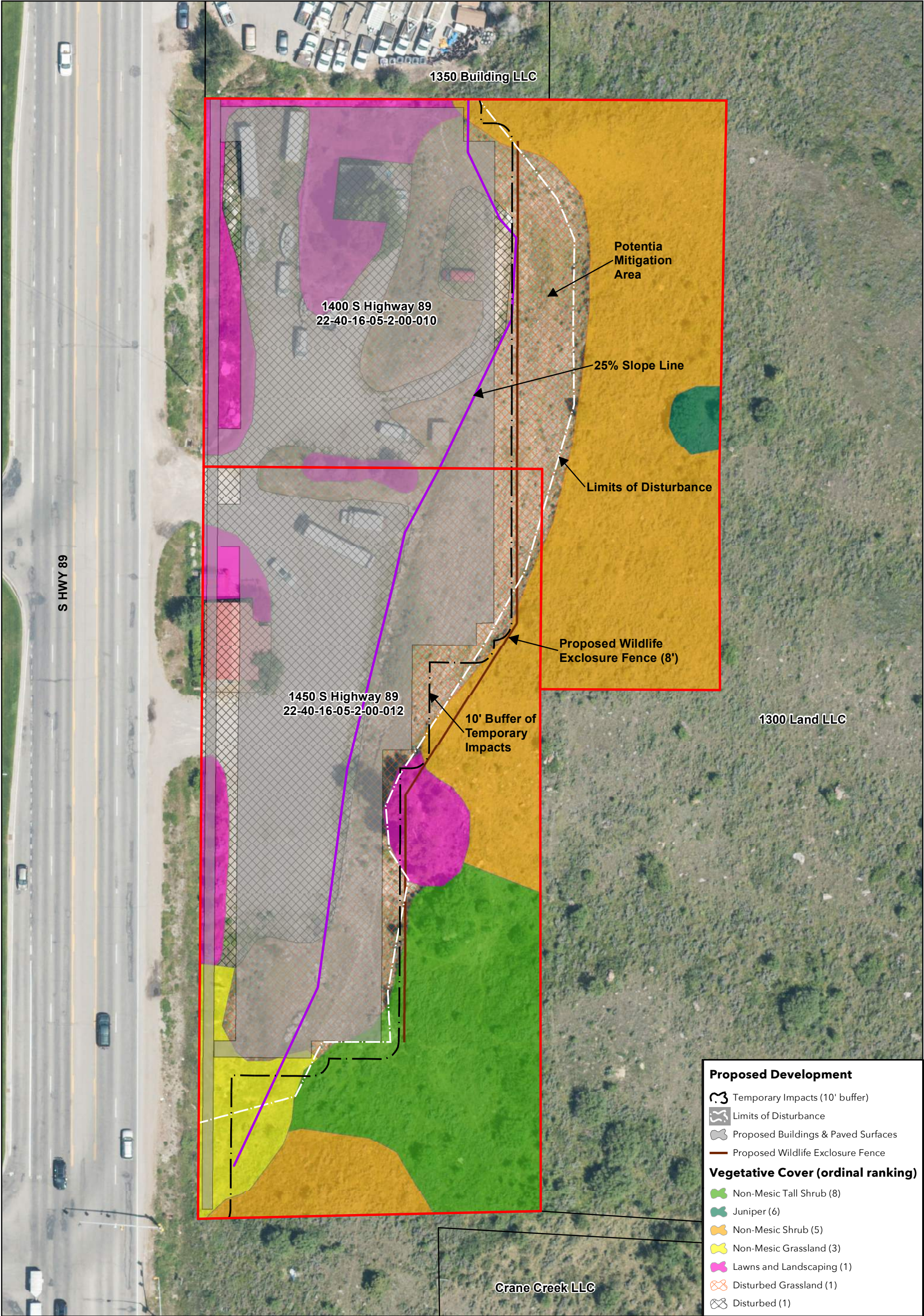


Mule Deer (*Odocoileus hemionus*) Movement and Habitat Use Patterns in Relation to Roadways in Northwest Wyoming (Report No. FHWA-WY-13/08F)

Mule Deer Migration Patterns

- Low Use: Movement Area
- Moderate - Low Use: Movement Area
- Moderate - High Use: Movement Area
- High Use: Stopover Site

<p>Figure 4</p> <p>Mule Deer Migration Patterns</p> <p>December 15, 2022</p>	<p>1400 South LLC ENVIRONMENTAL ANALYSIS</p> <p>1400, 1450 S HWY 89</p> <p>Teton County, WY</p>	<p>Legend</p> <ul style="list-style-type: none">Subject PropertyLots & Parcels0.5 mile BufferCreeks	<p>Sources</p> <p>Teton County</p> <ul style="list-style-type: none">- Aerial Imagery, June 2019- Ownership BoundariesConservation Research Center and Teton Science Schools, Report No. FHWA-WY-13/08F- Mule Deer Migration PatternsTeton Conservation District (TCD)- Surface Water Inventory (SWI)	<p>1 inch = 1,000 feet</p> <p>0 250 500 1,000 Feet</p> <p>ALDERENVIRONMENTAL</p> <p>water wetlands ecological consulting</p> <p>Jackson, WY alderenvironmental.com</p>
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<p>Figure 5</p> <p>Vegetative Cover & Proposed Development</p> <p>December 15, 2022</p>	<p>1400 South LLC ENVIRONMENTAL ANALYSIS</p> <p>1400, 1450 S HWY 89</p> <p>Teton County, WY</p>	<p>Legend</p> <ul style="list-style-type: none">Subject PropertyLots & ParcelsTemporary Impacts (10' buffer)25% Slope Line (toe)Limits of DisturbanceProposed Buildings & Paved SurfacesProposed Wildlife Exclosure Fence	<p>Sources</p> <p>TETON COUNTY</p> <ul style="list-style-type: none">- Aerial Imagery, June 2019- Ownership BoundariesAlder Environmental, LLC- Vegetative Cover (9/28.22)- Proposed Wildlife FenceMass & Surface Architecture- Site Plan- 25% Slope Line- Limits of Disturbance	<p>1 inch = 50 feet</p> <p>0 12.5 25 50 Feet</p> <p>ALDERENVIRONMENTAL</p> <p>water wetlands ecological consulting</p> <p>Jackson, WY alderenvironmental.com</p>
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APPENDIX B: PHOTOGRAPHS

1400 SOUTH LLC EA UPDATE PHOTOGRAPHS



Photo 1. Disturbed grassland and parking area in the foreground with non-mesic shrub in the middle ground of the north parcel, looking southeast.



Photo 2. Disturbed grassland in the foreground with the parking area and office in the middle ground of the north parcel, looking southwest.



Photo 3. Non-mesic shrub and tall shrub in the south parcel, looking south.



Photo 4. Non-mesic shrub and tall shrub in the foreground of the south parcel with vehicle storage, buildings, and landscaping in the middle ground, looking north.