TETON COUNTY WYOMING

Environmental Analysis Review Request
Planning and Development Department
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Applicant: Teton County Integrated Solid Waste and Recycling

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Project Description/Name: Horsethief Canyon Landfill Closure and Const

PIDN: 22-40-16-27-2-00-001

For Office Use Only
Fee paid: waived per MFS2014-002 Check # ____ EVA-2014-a09

New EA or a Revision? New

I hereby certify that all information required on the Environmental Analysis Checklist is submitted as a part of this request and, to the best of my knowledge, all information submitted in this request is true and correct. I grant permission to Teton County and its partnering agencies to enter the property described above during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering the property. I will submit in digital format once the application is determined to be sufficient.

Signature: _____ **Date:** 12/5/14
(Landowner, Applicant, or Agent)

HORSETHIEF CANYON PROJECT

Environmental Analysis

Prepared for

Teton County Planning and Development Department

P.O. Box 1727

200 South Willow Street

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Prepared by

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December 4, 2014

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ENVIRONMENTAL ANALYSIS

1.0 INTRODUCTION

The Horsethief Canyon property includes a trash transfer station, sheriff impound lot, composting operation, and associated ancillary facilities. Past use of the property included a landfill which is now capped. The Wyoming Department of Environmental Quality (WYDEQ) is requiring Teton County to install a more robust cap on the landfill, including improved storm water controls. To proceed with the WYDEQ requirements and pursuant to the Teton County Land Development Regulations (LDRs), Teton County, WY Planning Department is preparing this Environmental Analysis (EA) for the Horsethief Canyon Project under provisions of their third-party consult agreement. The LDRs require an EA be prepared for this development because the property is located within the Teton County Natural Resources Overlay (NRO). The applicant (Teton County Integrated Solid Waste and Recycling (ISWR)) filed a preliminary application and was assigned a PAP number (PAP2014-0046) on January 7, 2014. The applicant received a briefing and initial check list from the Planning Department at the pre-application conference held on September 17, 2014 with representatives from Teton County Planning and Development Department, the applicant, Teton County Engineering Department, Engineers/Designers of the proposed project, and the third-party environmental consultant, Pioneer Environmental Services, Inc. were present. This Environmental Analysis is combined with a Development Impact Analysis. These documents share Appendices A (maps and figures) and B (Photographs of the site).

1.1 BACKGROUND

The 40.5 acre Horsethief Canyon property (formerly owned by the BLM) and an adjacent 17.8-acre tract of National Forest System (NFS) land in the Jackson Ranger District of Bridger-Teton National Forest (BTNF) were operated jointly as a community landfill from the mid-1950's through 1989 (USFS 2013). In 1989, the landfill operation ceased, a soil cap consisting of 18-inches of compacted soil beneath 6-inches of topsoil was placed on the portions of the landfill located on NFS land with surface water control channels added to control runoff. The roughly 40 acres of land owned by Teton County continued operation with modifications as a trash transfer and composting station based on a mutual operation agreement among Teton County, the US Forest Service (USFS), and other government agencies. Also starting in 1989, a trash transfer station building and scale house were constructed at the project site but all landfill-bound trash was sent to the Sublette County-Marbleton Landfill until July 2012, when Teton County began sending waste to a lined landfill in Bonneville County, Idaho.

Due to the ineffective cap and limited storm water controls at the Horsethief Canyon property, there is evidence that surface water has infiltrated the buried trash and generated leachate. In 2008, quarterly testing began on four groundwater monitoring wells at the landfill site (Golder Associates 2013). Groundwater contamination was confirmed, including contaminants that exceeded the Water Quality Groundwater Protection Standards (Golder Associates 2013 and USFS 2013). On September 25, 2012, Teton County submitted an application to the USFS for authorization to re-shape and re-cap a landfill and to construct groundwater and landfill gas monitoring wells at the site. Providing protection

from leaching contaminants from the site to groundwater became an issue that required changes to the site be made. Details for the capping, alternative strategies for completing the work, alternative designs, and a full environmental assessment for the site were done by Golder Associates (2013) under a scope of work for Teton County and submitted as a report on December 9, 2013 to the USFS (2013). That report (Golder Associates 2013) is included by reference to this Environmental Analysis. In addition, the USFS reviewed the report regarding the capping and closure of the facility located on NFS land and issued a Decision Notice (DN) and Finding of No Significant Impacts (FONSI) on December 13, 2013. That DN and FONSI are also included by reference to this Environmental Analysis.

The Horsethief Canyon property contains a dead animal pit. Although inadvertent, the dead animal pit has been an attractant to both bears and birds on occasion based on observations made by workers and administrators of the site (Overholser 2014.)

1.2 PROJECT AREA

The Horsethief Canyon property is located approximately 4.5 miles south of the town of Jackson along Highway 26/89/189/191. The property is 40.5 acres located in the SW1/4 of the NW1/4 of Section 27, Township 40 North, Range 116 West, Teton County, Wyoming (Figure 1). It is zoned Public/Semi-Public and is entirely within the Natural Resource Overlay (NRO) (Teton County Wyoming Mapserver (Ver. 2012/2013). In addition, a small piece of the southwest corner of the property, located across Highway 89 from the existing transfer station, is located in the Scenic Resources Overlay (SRO) (Figure 11). NFS land borders the site to the north and east. A state owned material storage site for the Wyoming Department of Transportation (WYDOT) borders the site on the west except for a portion about 200-feet in length on the southwest corner which is owned by Melody Ranch Investments I LLC and encumbered by a Teton County Scenic Preserve Trust (TCSPT) easement (Figure 11a). The southern boundary includes a highway corridor and lands administered by the Wyoming Game and Fish Commission (Figure 11).

1.3 PURPOSE AND NEED

The proposed changes to the existing Horsethief Canyon site are being submitted for the purposes of:

1) Making the existing facilities more efficient, environmentally sustainable and effective in dealing with services associated with waste transfer, composting of organic materials, and other existing services using best management practices and design criteria. The project will provide final closure of the landfill in order to meet the requirements of the Wyoming Department of Environmental Quality (WDEQ) as noted in Wyoming Solid Waste Rules, Chapter 1, Section 2 (g and h) and Chapter 2, Section7;
2) Implementing proposed new design strategies and methods of operation of the facility in order to avoid further degradation of ground and surface water quality from release of materials, gases, and pollutants found at the site. Improving and protecting water quality will also help to insure that the site does not contribute pollutants to Flat Creek and eventually the Snake River;
3) Bringing the design and operation of the facility within the agreed approvals, joint efforts, and compliance documented in the Decision Notice and FONSI (USFS 2013); and

4) Reducing the potential for the facility to inadvertently attract or provide supplemental food for wildlife as required by Teton County regulations and agreements, especially for bears.

The reason or need to complete this work for the above stated purposes focuses on the problems discussed in detail in the Golder Associates (2013) and the DN prepared by the Forest Service (USFS 2013). The need to make changes to the existing waste transfer facility and the landfill prior to 1989 have also been documented by numerous internal discussions and reports prepared by Teton County and direction received from the EPA and WDEQ. This project is designed to fulfill the stated purposes and meet the needs noted in past reports, documents, decisions, and agreements.

1.4 BRIEF PROJECT DESCRIPTION

The proposed action involves constructing a new scale house in three phases, recapping and contouring the old landfill, reconfiguring and developing the compost facilities, and completing grading and fencing. This proposal is described in more detail in the Development Implementation Plan. The area proposed for implementation of the plans and activities for this project is fully within the 40.5 acres described above. The plans do not require new access or off-site activities in Teton County, Wyoming, however an option to create public parking and access to the NFS land to the north of the county property is being considered.

2.0 METHODS

2.1 USE OF EXISTING INFORMATION

Most of the information for the maps and depictions used for this Environmental Analysis were derived from existing information found in the Environmental Report for the site (Golder Associates 2013), the DN and FONSI prepared by the USFS (2013), the Environmental Impact Study conducted in behalf of the Federal Highway Administration for WYDOT (FHA 2010), the Mapserver files compiled for Teton County (http://maps.greenwoodmap.com/tetonwy/mapserver/), and files provided by the City of Jackson and Teton County, Wyoming. All of the maps and depictions referenced in this Environmental Analysis and Development Impact Analysis are found in Appendix A. References for this analysis are found in the References Section of this document. Most of the surveying for the site completed by Golder Associates was carried out using Trimble Real-time Kinematic Geographic Positioning System (RTK) and Robotic Total Station survey equipment in proper adjustment.

2.2 SITE VISITS AND PHOTOGRAPHY

Preparation of this Environmental Analysis required making several visits to the site. The consulting team visited the site with representatives from the applicant and Teton County Planning Department in September 2014. Subsequent site visits were made by individual consultant team members in October and November 2014 in order to understand some specific questions. Photos of the site taken during those visits with brief descriptions are included in this report as Appendix B.

3.0 EXISTING SITE CONDITIONS AND LAND USES

The Horsethief Canyon property contains developed and undeveloped areas. The developed areas contain trash transfer and composting operations, dead animal pit, and associated roads, parking areas, sheriff impound lot, a portion of Highway 26/89/189/191 and part of an adjacent shooting range (Figure 2). The areas containing these uses are intensely developed with almost no vegetation or natural features. A portion of the undeveloped portion of the area (eastern ridge, Figure 2) was used as a borrow area for the soil cap on the closed landfill area of the property.

The soils at the site were described as Greyback-thayne complex sitting on 10 to 20 percent slopes (NRCS 2011). The most dominant soil is the Greyback gravelly loam which is in Hydrologic Group B (excessively drained). The soil is well suited to rangeland vegetation in its natural state and has the potential for minor erosion, especially if striped of vegetation.

The Horsethief Canyon property mainly functions as a trash transfer and compost operation. As part of the trash transfer operation there is a scale house and trash transfer building (Figure 2). The transfer building is used to consolidate municipal solid waste for transfer to a lined landfill in Bonneville County, Idaho. In addition, there are several stockpile areas for recyclables such as metal, glass and tires which are transported from the site. The compost operation consists of several stockpiles of landscape waste and discarded damaged hay which are processed for future use as compost in local landscape projects. Food waste is not composted on site. A sheriff impound lot is also located within this site. The internal roads and the parking areas are gravel surfaced. There is also a dead animal pit on the property that functions as a depository for animals killed on county highways and dead animals from farms, ranches, and other sources.

In addition to the trash transfer and compost operations, the southeast corner of the site lies in an adjacent canyon and encompasses a portion of a public shooting range. The southwest corner of the property is used as a right-of-way for Highway 26/89/189/191 and to access adjacent parcels. Approximately 20 acres of the Horsethief Canyon property are undeveloped or revegetated borrow areas. The Horsethief Canyon property's land uses are depicted in Figure 2.

4.0 ALTERNATIVE SITE DESIGN ANALYSIS

Given the purpose and function of the ISWR station there are few significant alternatives for design within the site. Accomplishing the purposes and functions for this site at an alternative location was not considered for this Environmental Analysis given the investment in terms of infrastructure, previous permitting, the lack of other public properties where these activities could be accommodated, the magnitude of increasing environmental impacts associated with establishing new solid waste transfer and composting facility versus improving the existing site. Golder Associates (2012) considered a range of alternatives in the report "Teton County Landfill Closure Alternatives Evaluation' (Appendix A, Golder Associates 2013). There were five conception-level action alternatives evaluated which ranged from

total removal of all solid waste to a series of alternatives that involved grading, capping, and composting at the existing site. The No Action alternative was also considered but if it were implemented it would not have met the purpose, needs, or obligations of the project.

The USFS (2013) authorized one of the regrading/capping alternatives in their DN. The alternative evaluation process was prepared for Teton County and after review they elected to pursue the actions proposed in this Environmental Analysis. The regrading, capping, and composting activities at the site are as described in the Project Description submitted to the Teton County Planning Department which complements the authorizations made in the DN on the adjoining NFS land.

5.0 HABITAT INVENTORY

5.1 VEGETATION COVER TYPES

The vegetation cover types found within the 40+ acres for the Horsethief Canyon site are depicted on Figure 4 and summarized by type, common name, acreage, habitat ranking, and percent of the site in Table 1. The most predominant cover type (34.5%) within the 40+ acre project area is the 14.0 acres of grassland which is a mixture of planted and introduced herbaceous species. Sagebrush types combine for nearly 12.0 acres (29.5%) located mostly on the ridge and eastern portion of the site. Developed/disturbed cover types include over 11.5 acres or roughly 28.5% of the site. The remaining 7.5% is mainly landscaped areas. The highly ranked (8) Mixed tall shrub type comprises less than an acre or roughly 1.9% of the site.

TABLE 1. CONSOLIDATED COVER TYPES WITHIN THE HORSETHIEF CANYON PROJECT AREA.

VEGETATION COVER TYPE (Fig. 4)	COUNTY HABITAT RANK	VEGETATION TYPE NAME (EXAMPLES)	ACRES	PERCENT OF COVER
Landscaped	NR	Mixed Blue Spruce - Aspen - Cottonwood Semi-natural Planted Woodland, lawns, landscaping	1.92	4.7%
Grassland	3	Mixed Grassland Herbaceous Vegetation	14.00	34.5%
Agricultural Field	1	Non-Irrigated Agricultural Fields	0.35	0.9%
Developed / Disturbed	NR	Gravel and Dirt Roads, parking lots, buildings, driveways, paved areas and other impervious areas	11.56	28.5%
Mixed Tall Shrub	8	Mixed Tall Deciduous Shrubland	0.77	1.9%
Mixed Sagebrush	3	Sagebrush - Snowberry - Chokecherry - Serviceberry Mixed Shrubland	7.54	18.6%
Sagebrush	3	Sagebrush Dry Shrubland	4.44	10.9%
		TOTAL	**40.58**	

5.1.1 NOXIOUS WEEDS

Golder Associates (2013) documented the presence of several noxious weed species present on the Horsethief Canyon site that are on the Teton County Weed and Pest Department's Control Priorities List (TCWPD 2013). The noxious weeds found included Common Mullein (*Verbascum thapsus*), Dalmatian toadflax (*Linaria dalmatica*), Diffuse knapweed (*Centaurea diffusa*), Houndstongue (*Cynoglossum officinale*), and Musk thistle (*Carduus nutans*). The highly invasive Diffuse knapweed is declared a Priority 1 species by the TCWPD. Priority 1 species pose the highest threat to native plant communities, and can reduce habitat value to a point where it is unfit for wildlife and livestock grazing. Dalmatian toadflax and Houndstongue are Priority 3 species. There is also no tolerance for further spread from the established locations for these species. Musk thistle and Common mullein are Priority 4 species. Likewise, TCWPD has expressed no tolerance for further spread of these species and control and maintenance of current infestations is required. All five of the above noted species are all located within the project area that will be disturbed during project implementation. Consequently, elimination and control of these species will be require mitigation efforts during and after implementation of the proposed project.

5.2 SURFACE HYDROLOGY

The project area is located in the Lower Flat Creek Watershed (HUC-12 170401030205). The Horsethief Canyon catchment drainage area is approximately 1,000 acres. There are no perennial streams within the catchment. An intermittent channel is located along the southeast boundary of the landfill, formed by the contact between the landfill and the adjacent natural topography (Golder Associates 2013).

The Horsethief Canyon catchment is tributary to a segment of Flat Creek (WYSR170401030205_01) that is on the Wyoming 303(d) (impaired) list (WDEQ 2012). The Water quality assessments conducted on Flat Creek by Teton Conservation District (TCD) indicate that the creek's ability to meet its aquatic life other than fish use is threatened, primarily by urban runoff, which contributes excess sediment to the stream and limits aquatic habitat (Golder Associates 2013). The intermittent stream located on the proposed project site does not have sufficient flow (<3 cfs) to qualify for specific protection under provisions of the LDRs. However, Teton County should be aware that the intermittent stream may qualify as a "channel" as defined under provisions of the Clean Water Act and merit consultation with the U.S. Army Corps of Engineers, Cheyenne Office. The intermittent stream is identified on Figure 3. No wetland areas or jurisdictional waters of the U.S. (as defined by the USACE 1987 Wetland Delineation Manual) were identified within the project area during initial literature review or during site visits by the consultant during fall 2014.

The Proposed Action area is not located in or near floodplains, wetlands or municipal watersheds, nor will it affect them. This has been validated by map and site-review by the preparers of this report and in the report prepared by (Golder Associates 2013).

5.3 GROUNDWATER

Normally an in-depth discussion of groundwater resources is not required by the LDRs. However, a major force driving the proposed changes at the Horsethief Canyon project site is to protect groundwater within the site and to improve conditions so that water entering Flat Creek and eventually the Snake River are of high quality and not contaminated by the site as water passes through it underground. Hydrogeology in the project area has been described in the Draft Nature and Extent of Contamination Work Plan for the Teton County Landfill (Golder Associates 2012b), from which the following is excerpted.

Four groundwater monitoring wells (GW-3, GW-4, GW-5A, and GW-5B: Figure 3) were installed in mid-2007, and all have 20-foot-long well screens. Well pair GW-5A and GW-5B were completed to depths of 179 and 100 feet below ground surface (bgs), respectively. Wells GW-3 and GW-4 were installed to depths of 197 and 165 bgs, respectively. These four wells have been sampled quarterly by Teton County since 2008.

Observed water levels in all of the monitoring wells varied by only about one to two feet with no significant trends between July 2007 and October 2011. Further, the levels do not appear to show seasonal influences. Thus, it is inferred that groundwater levels may be controlled by regional flow rather than local seasonally-influenced flow.

Well GW-5B is screened at a much shallower elevation (6035 feet above mean sea level (ft amsl) than the other three wells (5907 to 5956 ft amsl). Well GW-5B appears to be the only "water table" well with a water level within the screened interval, compared to other three wells where the water levels in the wells are about 52 to 85 feet above the top of the screened interval. When comparing groundwater levels between shallow and deep well pairs GW-5B and GW-5A, respectively, there appears to be a downward gradient of about 0.25 at this location. Gradients elsewhere on Site are unknown due to the lack of additional well pairs.

Based on the borehole logs for deep wells GW-3, GW-4, and GW-5A, it appears that the sediments were dry to moist until wet soil was encountered at the deeper interval screened. The soils in shallower well GW-5B were logged as being dry to slightly moist in the screened interval (80 to 100 feet bgs) and moist to very moist at 70 to 71 feet bgs, which is above the depths where groundwater has been consistently observed in this well (79 to 81.5 feet bgs).

Such observations of placing the screened interval at the first encountered wet soil during drilling in wells GW-3, GW-4 and GW-5A, followed by significantly higher water levels in the installed wells might imply confined conditions if there was a confining geologic unit present. However, the logged soils varied between gravelly silts or clayey silts and clayey silty gravels, with no obvious "confining layer." Alternatively, higher water levels might indicate that the overlying soils were relatively impermeable and slow to release water.

Based on the observed groundwater in well GW-5B, there does not appear to be a perched water layer at this depth. Thus, impermeable soils may be a more reasonable explanation for the Site. Due to having only one "water table" well and it being located near the mouth of the canyon, it appears that additional shallower wells may be necessary to delineate the extent of the relatively "shallow" subsurface impacts. Investigation of the shallow groundwater may be complicated by the presence of the Hoback Fault system, especially at the upper portion of the canyon. Thus, multi-level wells may be necessary to adequately characterize the hydrogeology (Golder Associates 2012).

6.0 WILDLIFE

6.1 RAPTORS

6.1.1 BALD EAGLE

The Bald eagle (*Haliaeetus leucocephalus*)) is known or likely to be present in the Flat Creek Sub-watershed (Figure 5). Although it is no longer listed as a Threatened species under provisions of the Endangered Species Act, the species and its habitat remain protected under the Bald and Golden Eagle Protection Act as well as the Migratory Bird Species Act. Provisions to protect bald eagle nests within 660 feet of a proposed development are included in the LDRs for Teton County. The closest bald eagle nest to the project area is approximately 1.28 miles (over 6,700 feet) to the southwest of the site. Bald eagles generally nest near coastlines, rivers, large lakes or streams that support an adequate food supply. Bald eagles are also known to scavenge at open dumps and other places where animal carcasses are accessible. They often nest in mature or old growth trees; snags (dead trees); cliffs; rock promontories; rarely on the ground; and with increasing frequency on human-made structures such as power poles and communication towers.

6.1.2 PEREGRINE FALCON

Peregrine Falcons are known to occur in the vicinity of the project site. Locations of a known nest site is depicted on Figure 5. This nest is located on NFS land approximately 0.25 miles (over 1,300 feet) north of the project site and is used during most years. A number of provisions to protect this nest during the nesting season were part of the USFS DN (2013).

The American Peregrine Falcon (*Falco peregrinus anatum*) was delisted as a species protected under the Endangered Species Act but is protected under the Migratory Bird Treaty Act. Breeding pairs often utilize habitats containing cliffs and almost always nest near water. They commonly use open habitats for foraging. Many artificial habitats like towers, bridges and buildings are also utilized by the species. There have been documented Peregrine falcon nesting sites within a one-mile buffer of the project area (Patla 2013a), including the nest noted above, but there are no documented occurrences of Peregrine falcon within the actual project area (WYNDD 2013).

6.2 SNAKE RIVER FINE-SPOTTED CUTTHROAT TROUT

There is no occurrence of this species within the project area as there are no rivers, streams, or creeks capable of sustaining this species during any stage of its life cycle. However, the species could be

indirectly affected by pollutants coming from the project site and leaching into Flat Creek or the Snake River. This is one reason why the efforts to upgrade the facility and diminish the potential of polluting ground water are important.

6.3 TRUMPETER SWANS

Although trumpeter swans (*Cygnus buccinators*) are known to occasionally forage in fields and other upland habitats, they are generally restricted to shallow, freshwater marshes, ponds, lakes, and occasionally slow moving rivers (Slater 2006). There are no known active trumpeter swan nests in the project area. There have been three occurrences in the project area between 1980 and 1987, and three known occurrences within a one-mile buffer of the project area since 2003 (WYNDD 2013). The proposed project area is not appropriate trumpeter swan habitat.

6.4 MOOSE

Moose occur throughout the Gros Ventre watershed on a yearlong basis, save for alpine and rocky habitats at high-elevation during summer months (Figure 6). They use a variety of habitats from dense coniferous or quaking aspen forests to mixed-mountain shrub-lands, open meadows, and riparian areas. During the summer months, they are associated with coniferous forests where they seek relief from warm temperatures. Moose in the Gros Ventre watershed typically move to lower elevation and use willow-dominated riparian areas in the winter however, sagebrush/shrub areas can also provide foraging habitat.

Crucial range for moose is located approximately a half mile out of the proposed project area to the southeast (Figure 6). Spring and summer range, including calving areas, for moose are not located in the project vicinity (Figure 6). The project vicinity is located within the Jackson moose herd unit MO103 and the entire proposed project site is located within winter/yearlong range (Figure 6). The Jackson moose population has been declining due to low adult survival coupled with low calf recruitment. The five-year (2007–2011) population average was 1,085 moose with an estimated 2012 population of 500 (WYGFD 2012). The population objective for the Jackson moose herd unit is 3,600 ± 10%. Most of the habitat conducive to moose foraging is found in the eastern half of the project area on the sagebrush ridge (Figure 4).

6.5 ELK

Elk are known to occur in the project area (Figure 7). The portion of the project area that has the potential to contribute to providing elk forage is the roughly 20 acres of sagebrush habitat found on the ridge on the eastern side of the project area (Figure 4). The entire area is located within winter/yearlong habitat (Figure 7). A known elk migration route traverses the northeast corner of the proposed project area (Figure 7). Elk move along this route to use habitats associated with south and west facing slopes during fall/winter and to access movement habitats at Game Creek in order to travel to/from montane and valley habitats. The project area lies outside of existing elk winter crucial range or elk calving areas (Figure 7).

The project area is located within the Fall Creek elk herd unit EL103. The Fall Creek herd has recently declined from an average of 5,900 (2007–2011) to 4,500 in 2012 (WGFD 2012). The population objective for this herd unit is 4,500 ± 10%. Late season antlerless hunts have resulted in a reduction toward the population objective.

6.6 MULE DEER

Mule deer are known to occur in the project area on a year round basis. The project area lies within existing mule deer crucial winter/yearlong range (Figure 8). A mule deer migration route leads to Horsethief Canyon and on to wildlife habitat managed by the WYGFD west of Highway 89 (Figure 8). The habitat within the project area that is most likely to be used is the sagebrush ridge on the east side of the property. It should be noted however, that a very active public shooting range also borders that habitat and that a portion of the shooting range itself is within the southeast corner of 40+ acres of the project area (Figure 4). Currently, mule deer and other ungulates have to cross Highway 89 in order to travel to/from habitats located west of the highway. The WYDOT is planning to construct a specially designed big game underpass west of the proposed project site in 2017 (Figure 12) in order to reduce vehicle/wildlife collisions. The Horsethief Canyon project area is located within the Sublette mule deer herd unit MD 104. The mule deer population trend for this herd is declining and the herd is currently below management objectives. The five-year (2006–2010) population average was 27,720 deer and an estimated 2012 population of 22,825 (WGFD 2012). The population objective for the Sublette deer herd unit is 32,000 ±10 %.

6.7 MIGRATORY BIRDS

The investigation team first entered the project area during late-September 2014. Unfortunately this was too late to conduct a survey for migratory birds. However, some species were observed and this should be considered a partial list of what likely frequents the area. The following migratory birds were observed during the September and October site visits: Brewer's sparrow (*Spizella pallida*), black-billed magpie (*Pica hudsonia*), common raven (*Corvus corax),* English sparrow (*Passer domesticus*), common starling (*Sturnus vulgaris*), and mourning dove (*Zenaida macroura*). Golder Associates (2013) lists 14 species that potentially occur at the site but that list is based on geo-distribution tables and not field observations. The lack of shrubs, brush, and trees largely limits the nesting species to ground nesting birds. All migratory birds are protected under provisions of the Migratory Bird Treaty Act.

6.8 AMPHIBIANS

Aside from a small pond for accumulating runoff from the impervious surfaces there is no permanent water on the site. The lack of aquatic habitat contributes to the absence of amphibians such as the Columbia spotted frogs within in the project area (WYNDD 2013).

6.9 BEARS

The Teton County Transfer Station property is entirely located within Bear Conflict Priority Area 1 (Figure 9). Within Bear Conflict Priority Areas, the LDRs require that all trash be stored in certified bear resistant containers. Bears are notorious for scavenging at dumps or other sites where food, including carrion, can be obtained. Black bears are commonly seen on adjacent NFS land as well as the valley floor. Bear scat was seen during the evaluation team's site visit on the sagebrush ridge on the east side of the project area during September 2014. No reports of grizzly bear within the project area were found but there is always a potential for grizzly bears to occasionally wander through an area on the edges of their normal range if attracted by food during years when natural foods are scarce (See Section 6.12 for more information). The grizzly bear has been expanding its known distribution during the past few decades.

6.10 FEDERALLY LISTED THREATENED, ENDANGERED AND CANDIDATE SPECIES

The species listed by the U.S. Fish and Wildlife Service under provisions of the Endangered Species Act (1973, as amended) that have a potential for occurring in Teton County , their scientific name, status, and general habitat are noted below:

TABLE 2. STATUS, HABITAT AND POTENTIAL FOR OCCURRENCE OF FEDERALLY LISTED THREATENED, ENDANGERED AND CANDIDATE SPECIES WITHIN THE HORSETHIEF CANYON PROJECT AREA.

SPECIES/CRITICAL HABITAT	SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE IN PROJECT AREA
Canada Lynx*	*Lynx canadensis*	Threatened	Montane forests	Extremely low
Gray Wolf	*Canis lupus*	Experimental/ Non-essential	Greater Yellowstone Ecosystem	Possibly Present
Grizzly Bear	*Ursus arctos* horribilis	Threatened	Montane forests	No reports of species present at site
Greater Sage-grouse	*Centrocercus* urophasianus	Candidate	Sagebrush communities	Fragmented sagebrush habitat; no leks known to be present at site; heavily disturbed
North American Wolverine	*Gulo gulo luscus*	Candidate	Subalpine to alpine	Habitat not present
Whitebark Pine	*Pinus albicaulis*	Candidate	Cold and windy subalpine to alpine sites above 8,000 ft. elevation	Species not present site is below 8,000 feet
Yellow-billed Cuckoo (Western)	*Coccyzus* americanus	Candidate	Riparian areas west of Continental Divide	Inappropriate habitat

* Canada Lynx Critical Habitat: Designated areas include boreal forest landscapes within Fremont, Lincoln, Park, Sublette, and Teton Counties of Wyoming (see 50 CFR 17.95(a)).

From the above list only grizzly bear and sage-grouse have the potential of occurring within the project area. Although grizzly bear have been seen passing through habitats south (Gray's River) and west (Teton Pass) in recent years, they are not known to frequent the portion of Teton County where the project is planned on a predictable or regular basis. Grizzly bears and black bears can be attracted to food in the form of carrion or food waste. Eliminating the availability of carrion and not have food waste present that is available to bears are two reasons why making changes to the Horsethief Canyon site is important.

Although the eastern half of the project area includes about 20 acres of sagebrush habitat that could potentially be used by sage grouse, the habitat has been altered by extracting soil from about a third (7 acres) of those 20 acres. The area where soil was taken and the test pits in that area are readily visible on several of the figures from Appendix A such as on Figure 3. In addition, an active public shooting range is located on the southeast corner of the property which is directly adjacent to the sagebrush habitat depicted on Figure 3.

7.0 NATURAL RESOURCES OVERLAY

All of the proposed project area is within the NRO and the southwest corner of the site is within the SRO (Figure 10). The site is located within crucial winter habitat and also has a migration corridor for mule deer.

8.0 PROJECT VICINITY

The project vicinity is depicted on Figure 11. The site adjoins NFS land on the north and east and a Melody Ranch Investments property encumbered by a Teton County Scenic Preserve Trust to the west. Directly to the west is a land parcel belonging to the WYDOT which is used for material storage and mixing (Figures 1 and 11). Also within the project vicinity is a public shooting range which is partially located within the 40+ acres of the project area property and partially on lands managed by the Wyoming Game and Fish Commission (Figure 2). Vegetation cover types within the project vicinity are most sagebrush/grassland types except to the south on the west side of Highway 89, there are some wetlands/riverine habitats associated with Flat and Game creeks. An elk feed ground is located several miles to the south of the project area.

9.0 PREPARERS

LIST OF PREPARERS, AFFILIATION, RESPONSIBILITIES, QUALIFICATIONS

Preparer	Affiliation	Responsibilities	Qualifications
Dr. Roy Hugie	Pioneer ES, Inc.	Project Manager, Wildlife Sections	PhD, Wildlife
Anna DiSanto	Pioneer ES, Inc.	Document research, draft writing, references	BS, Environmental Science
Jeff Jensen	Pioneer ES, Inc.	Maps, Figures, Land-Use	BS, Geography
Amy Kuszak	Sub-consultant	EA Draft, DIA Draft, agency liaison	BA, Geography and Anthropology

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APPENDIX A:
Maps and Figures

Figure 1. Location and topography of the Horsethief Canyon property, Teton County, Wyoming.

Figure 2. The project area and existing land uses of the Horsethief Canyon property, Teton County, Wyoming.

Figure 3. Hydrologic features of the Horsethief Canyon property, Teton County, Wyoming.

Figure 4. Aerial photography and vegetation cover types of the Horsethief Canyon property, Teton County, Wyoming.

Figure 5. Bald eagle and peregrine falcon nest sites in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 6. Crucial winter range for moose in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 7. Crucial winter range for elk in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 8. Crucial winter range for mule deer in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 9. Bear Conflict Priority Areas in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 10. The Natural Resources Overlay in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 11. The ½ mile vicinity impact area and conservation easements in the vicinity of the Horsethief Canyon property, Teton County, WY.

Figure 12. The Proposed Development Overlay of the Horsethief Canyon property, Teton County, WY.

Figure 12a. The general drawing of the Teton County Landfill Closure Alternatives Evaluation at the Horsethief Canyon property, Teton County, WY.

Figure 12b. The detailed draft site development plan for the Horsethief Canyon property, Teton County, WY.

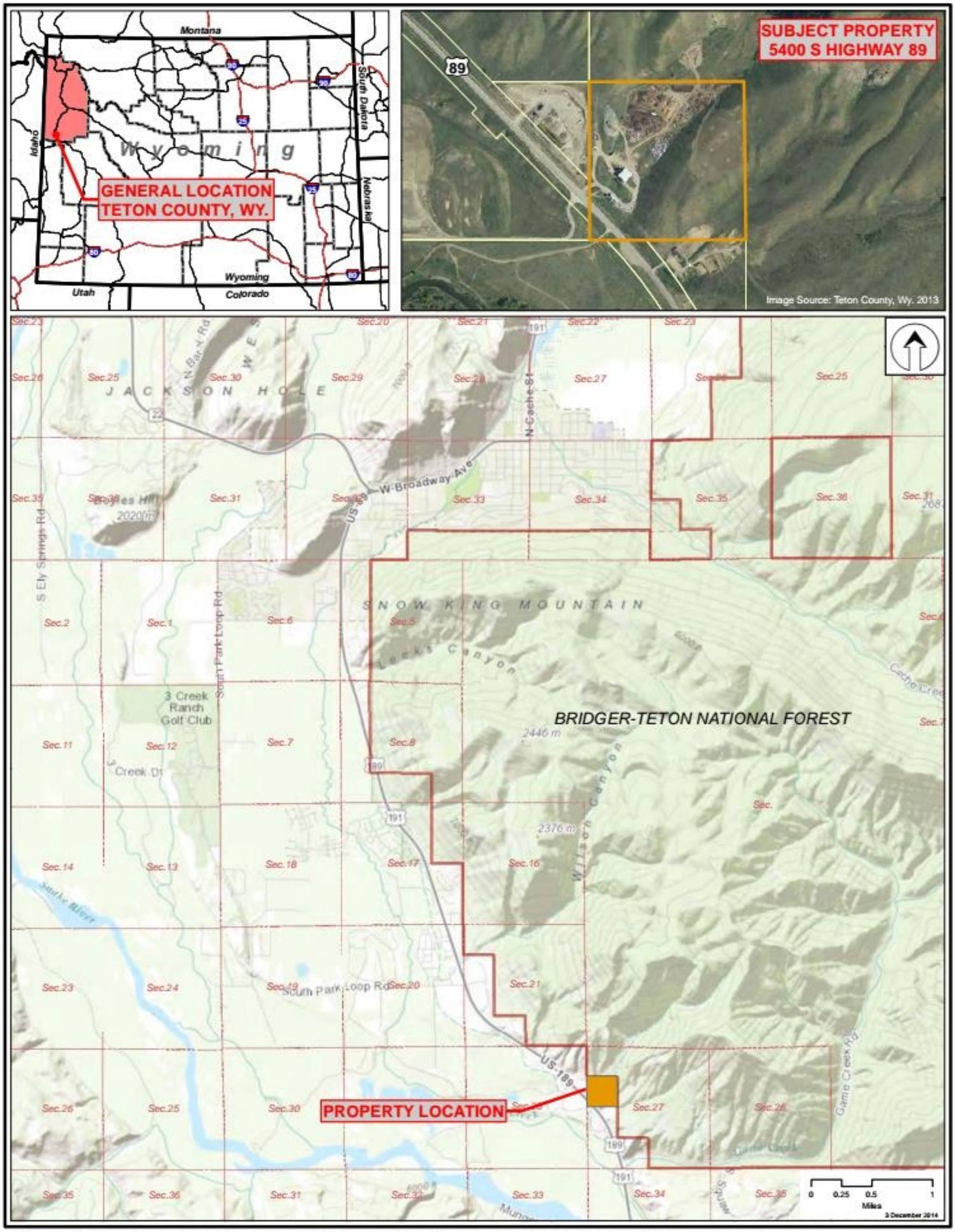

Figure 1. Location and topography of the Horsethief Canyon property, Teton County, Wyoming.

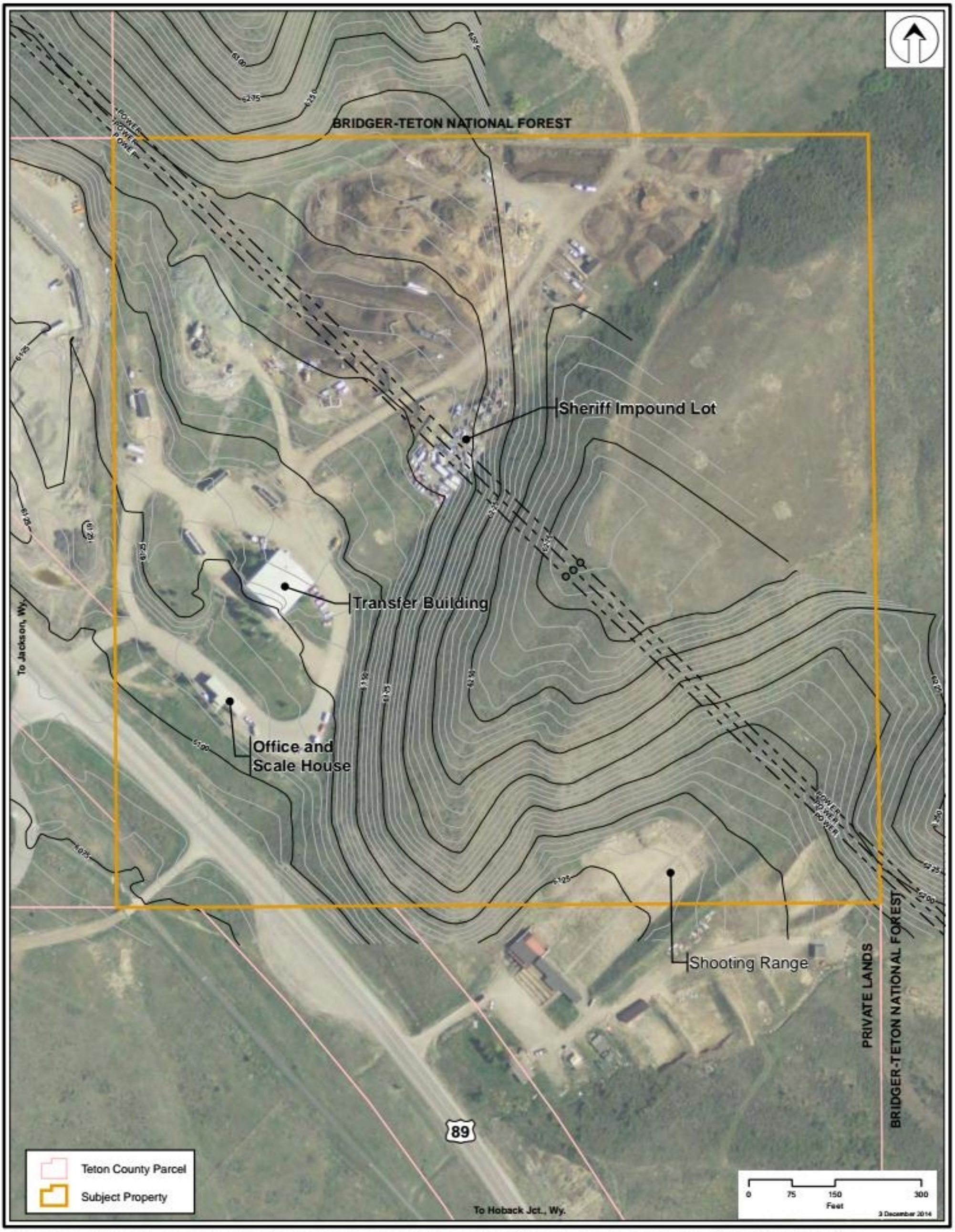

Figure 2. Project area and existing land uses of the Horsethief Canyon property, Teton County, Wyoming.

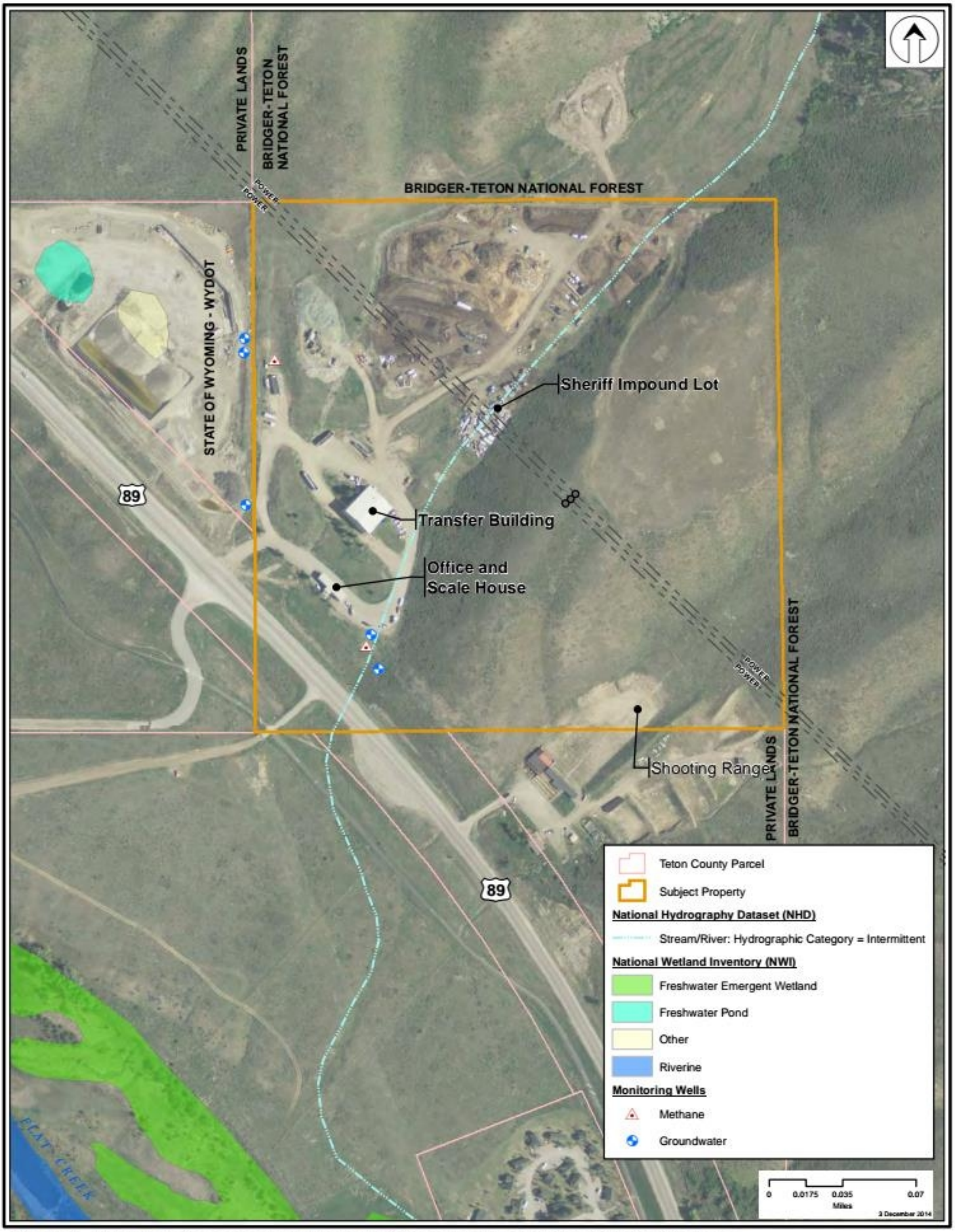

Figure 3. Hydrologic features of the Horsethief Canyon property, Teton County, Wyoming.

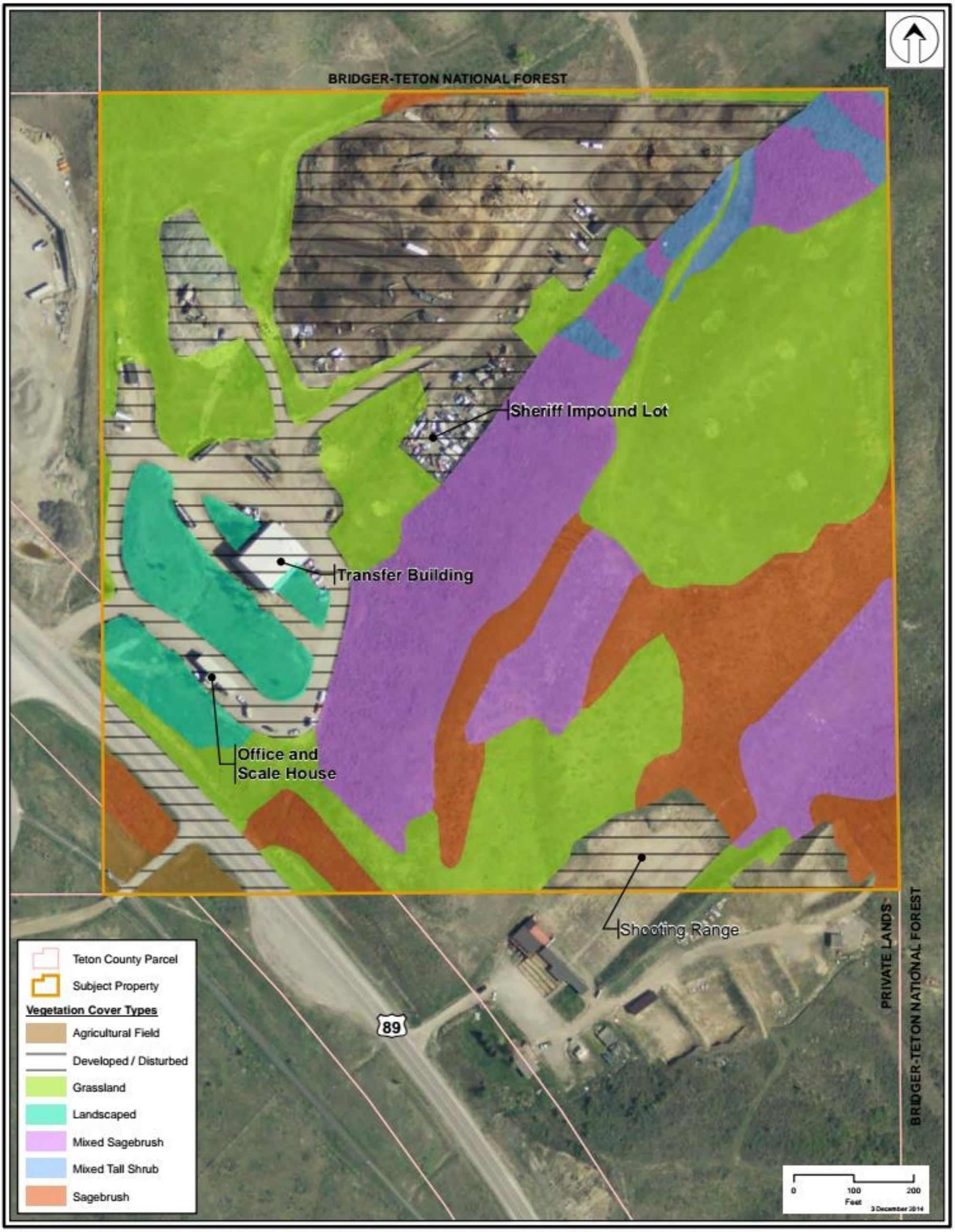

Figure 4. Vegetation cover types of the Horsethief Canyon property, Teton County, Wyoming.

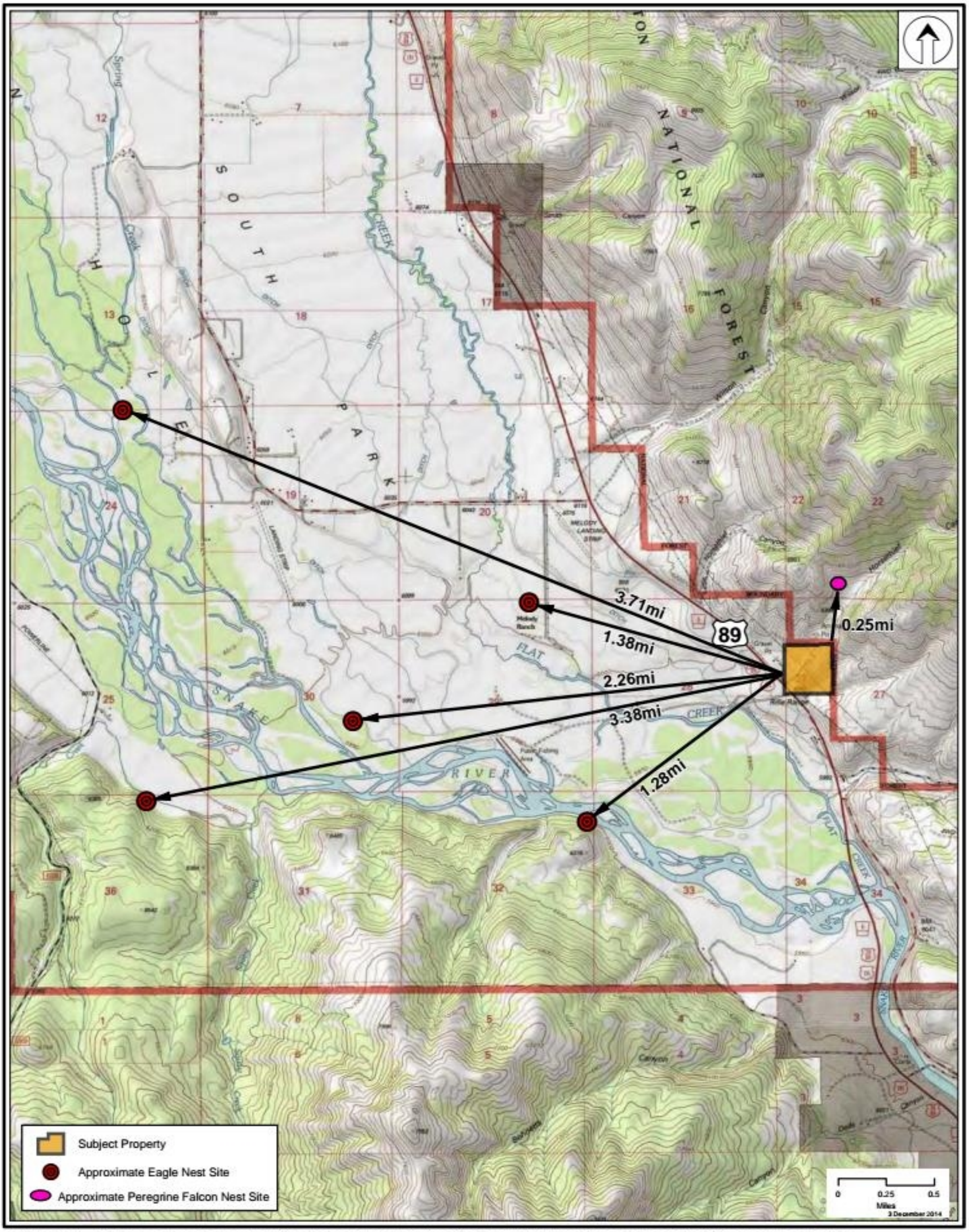

Figure 5. Bald eagle and peregrine falcon nests sites in the vicinity of the Horsethief Canyon property, Teton County, WY.

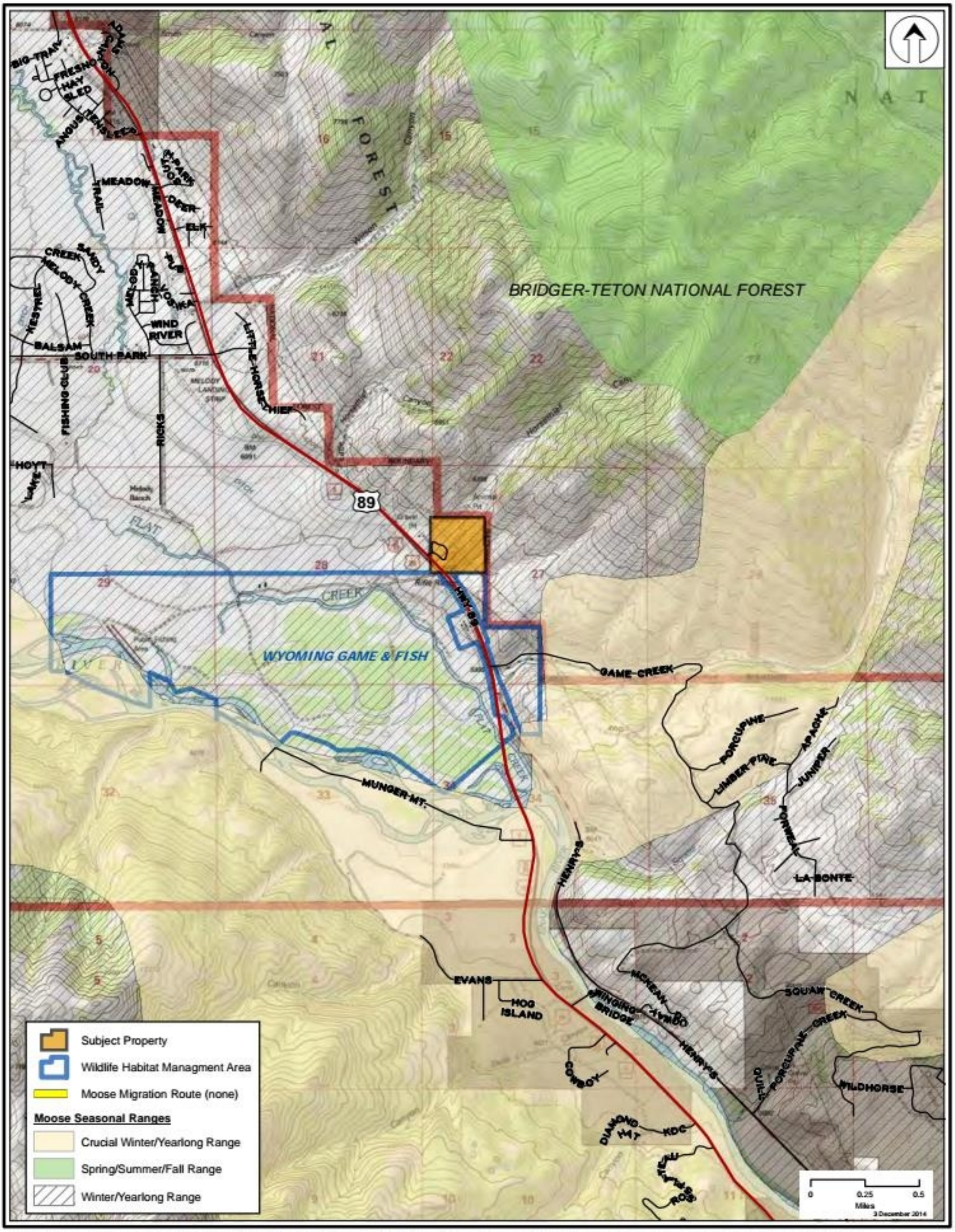

Figure 6. Seasonal ranges for moose in the vicinity of the Horsethief Canyon property, Teton County, WY.

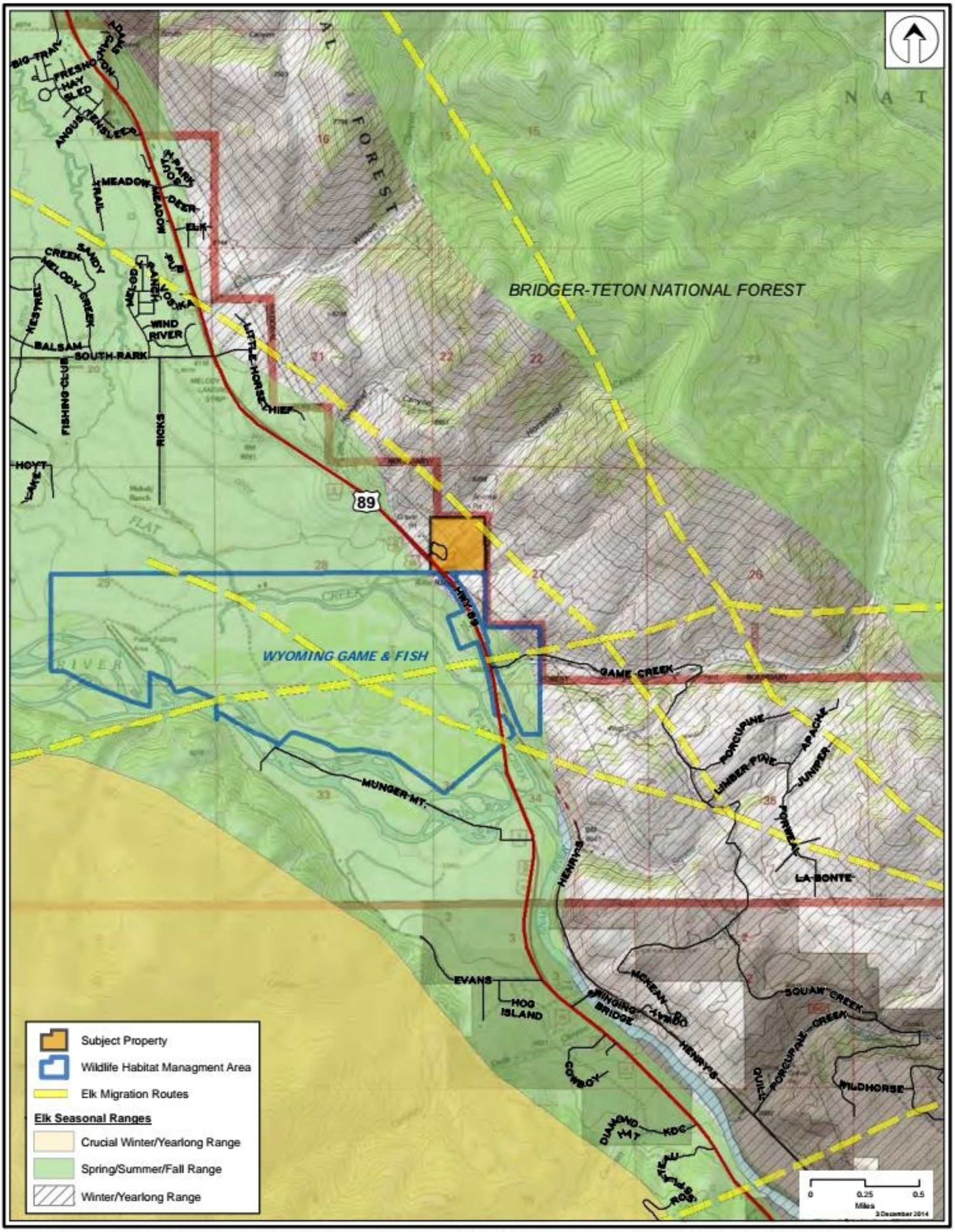

Figure 7. Seasonal ranges for elk in the vicinity of the Horsethief Canyon property, Teton County, WY.

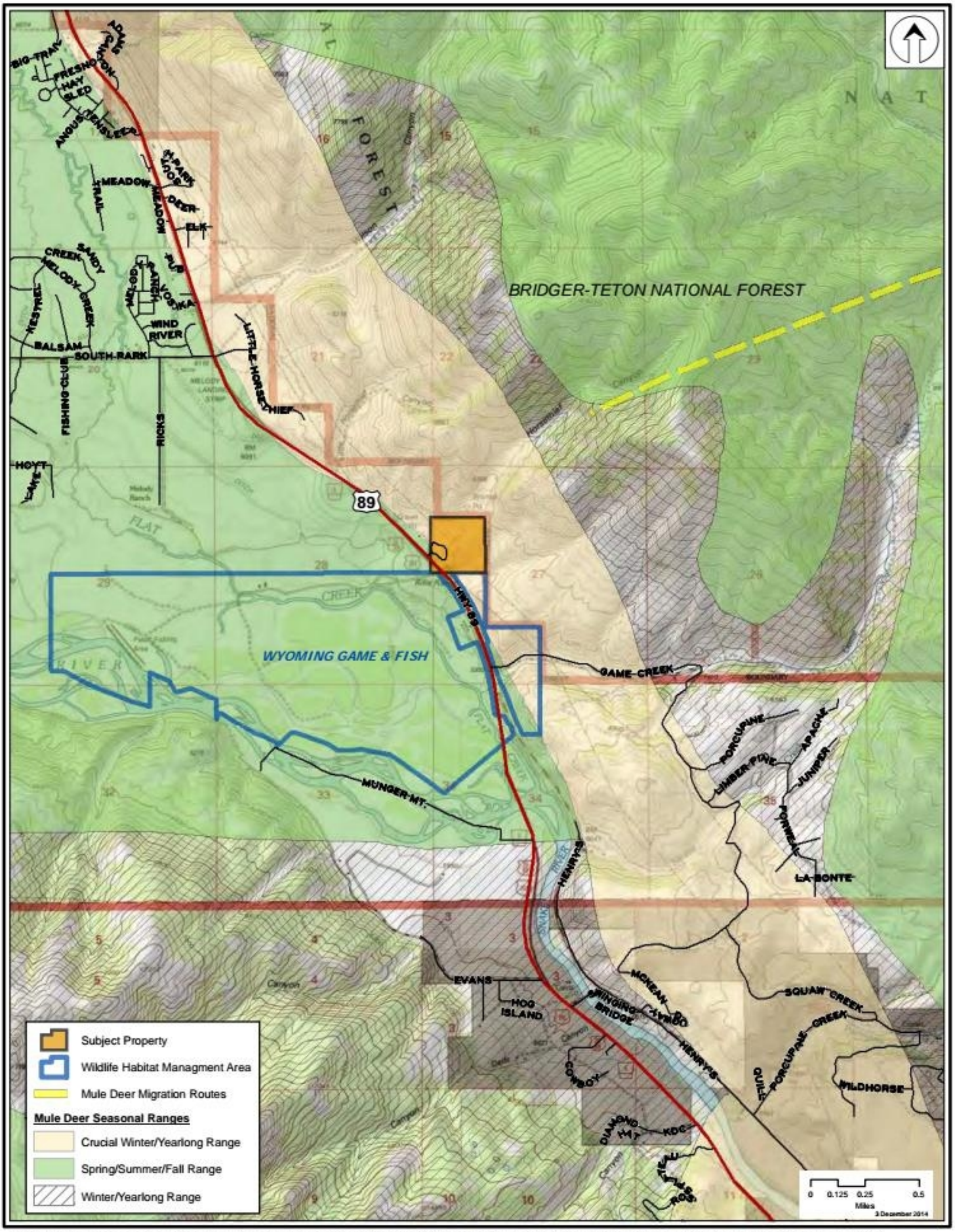

Figure 8. Seasonal ranges for mule deer in the vicinity of the Horsethief Canyon property, Teton County, WY.

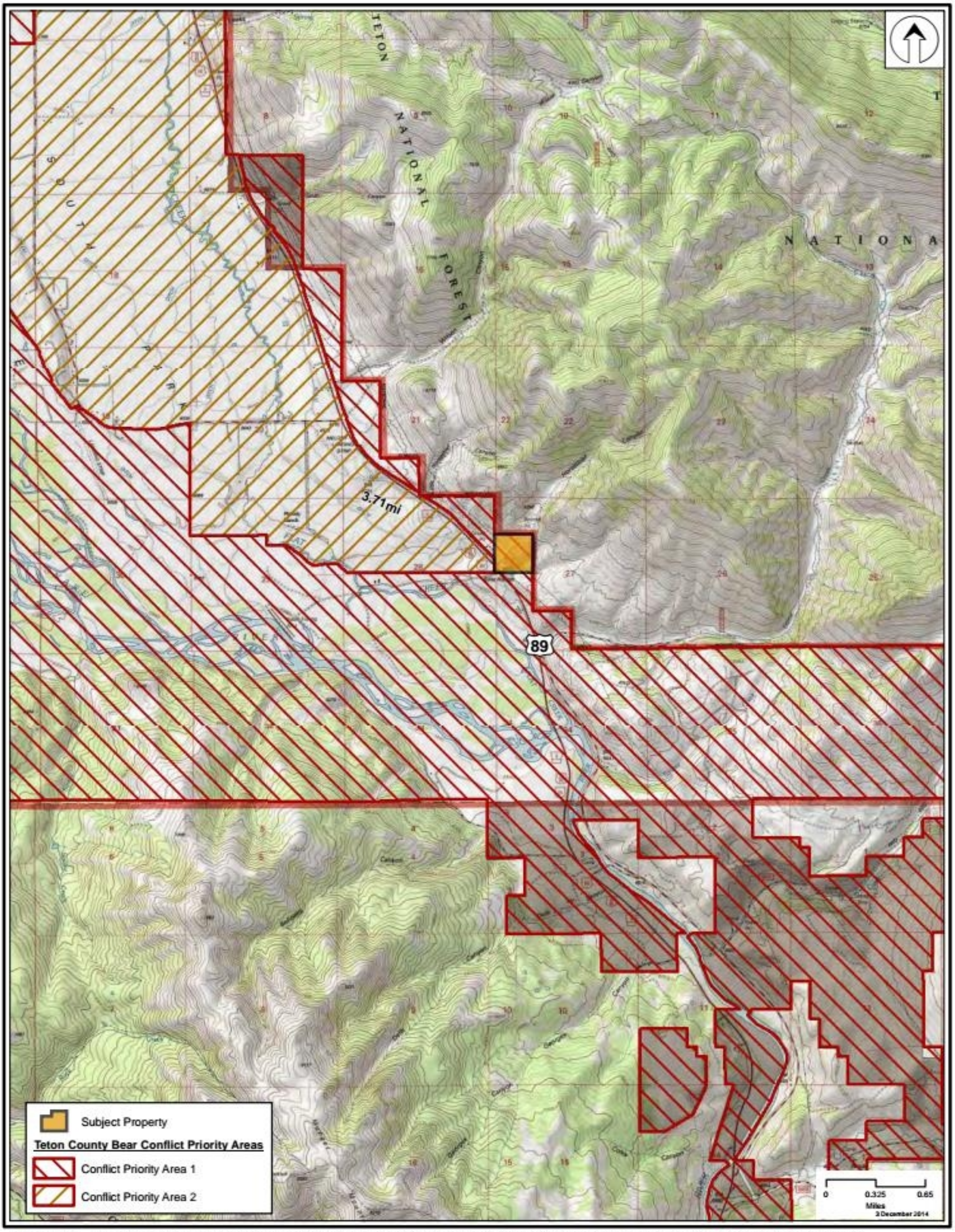

Figure 9. Bear Conflict Priority Areas in the vicinity of the Horsethief Canyon property, Teton County, WY.

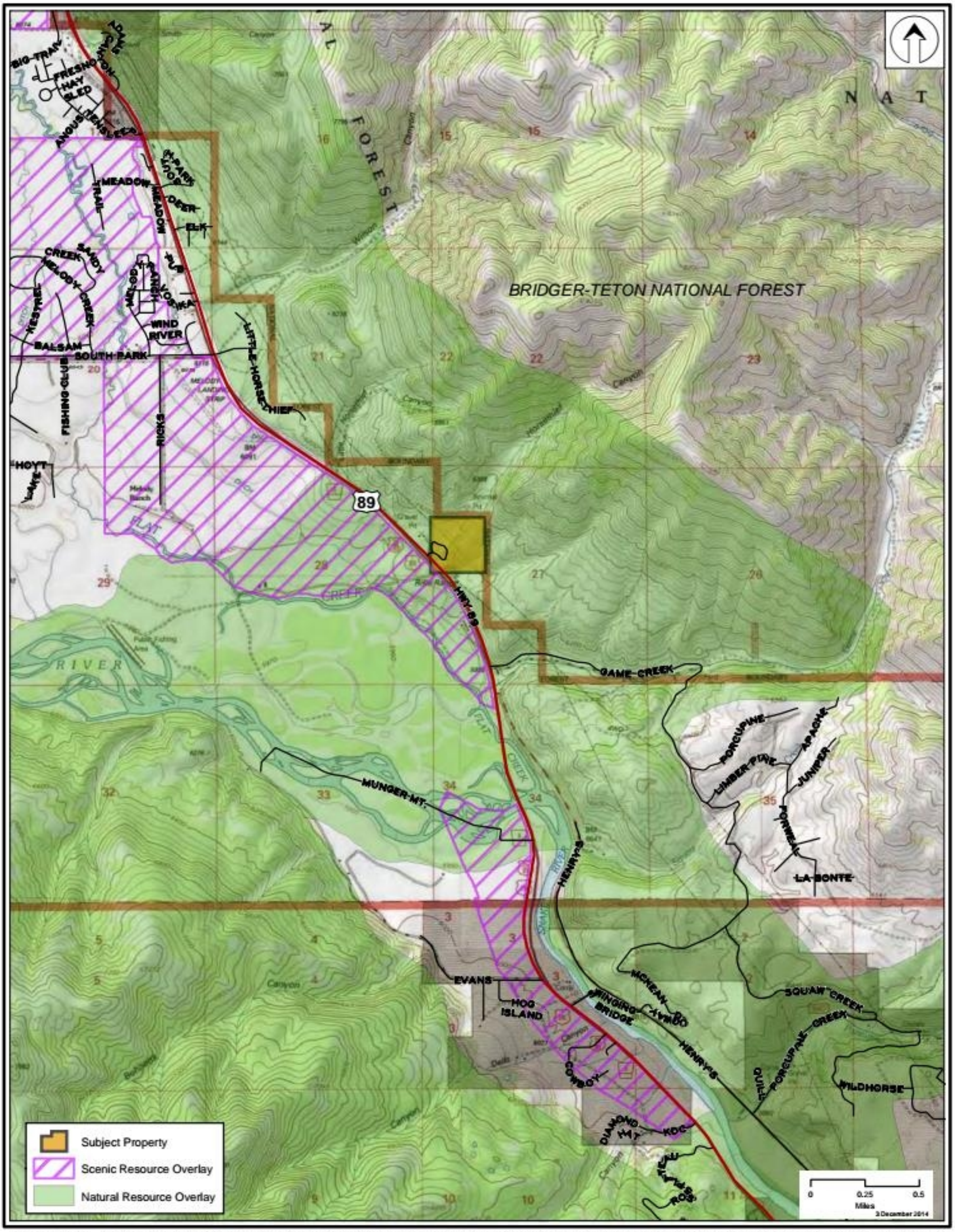

Figure 10. Natural & Scenic Resources Overlay in the vicinity of the Horsethief Canyon property, Teton County, WY.

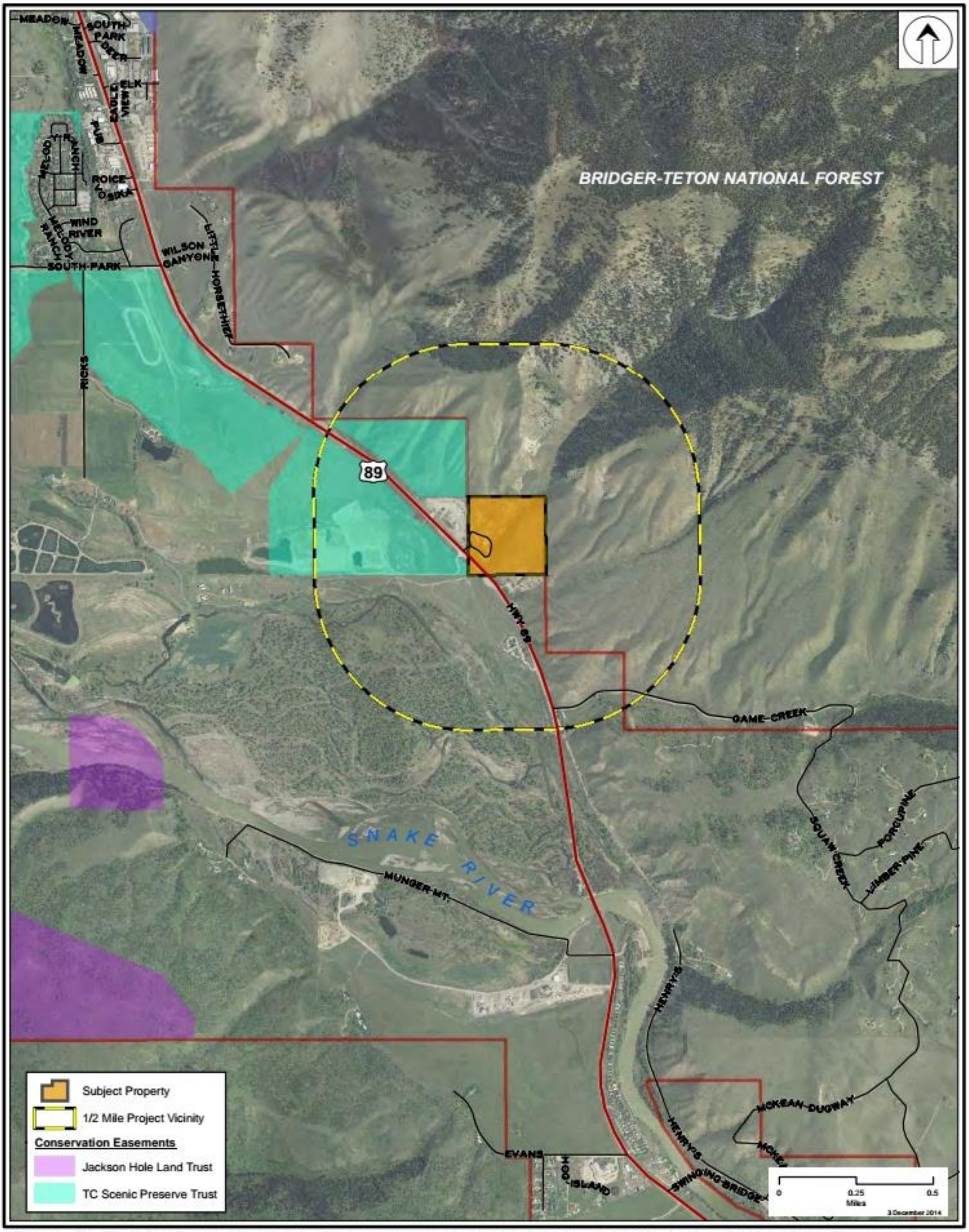

Figure 11. The ½ mile project vicinity impact area and conservation easements in the vicinity of the Horsethief Canyon property, Teton County, WY.

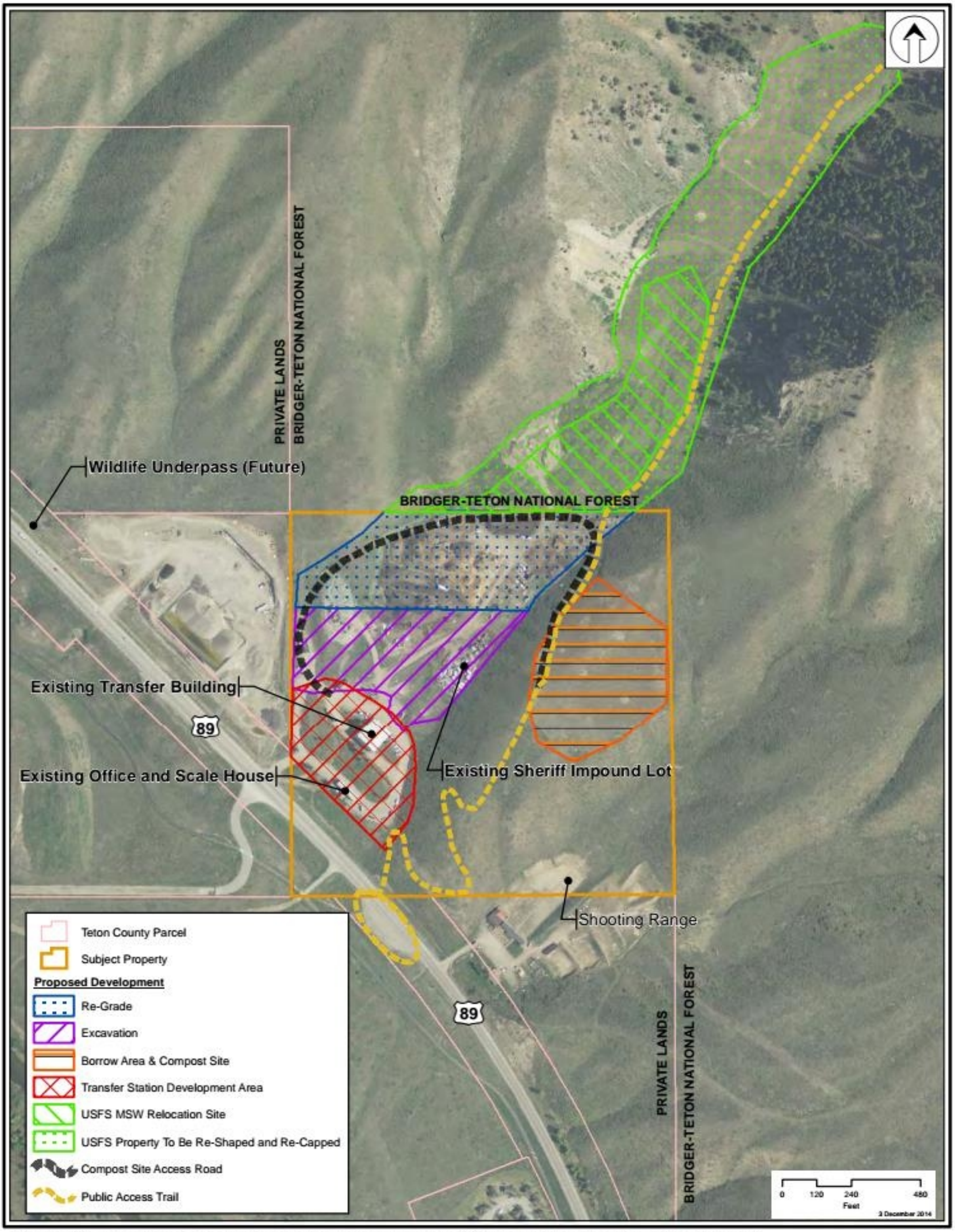

Figure 12. The proposed development of the Horsethief Canyon Property, Teton County, WY.

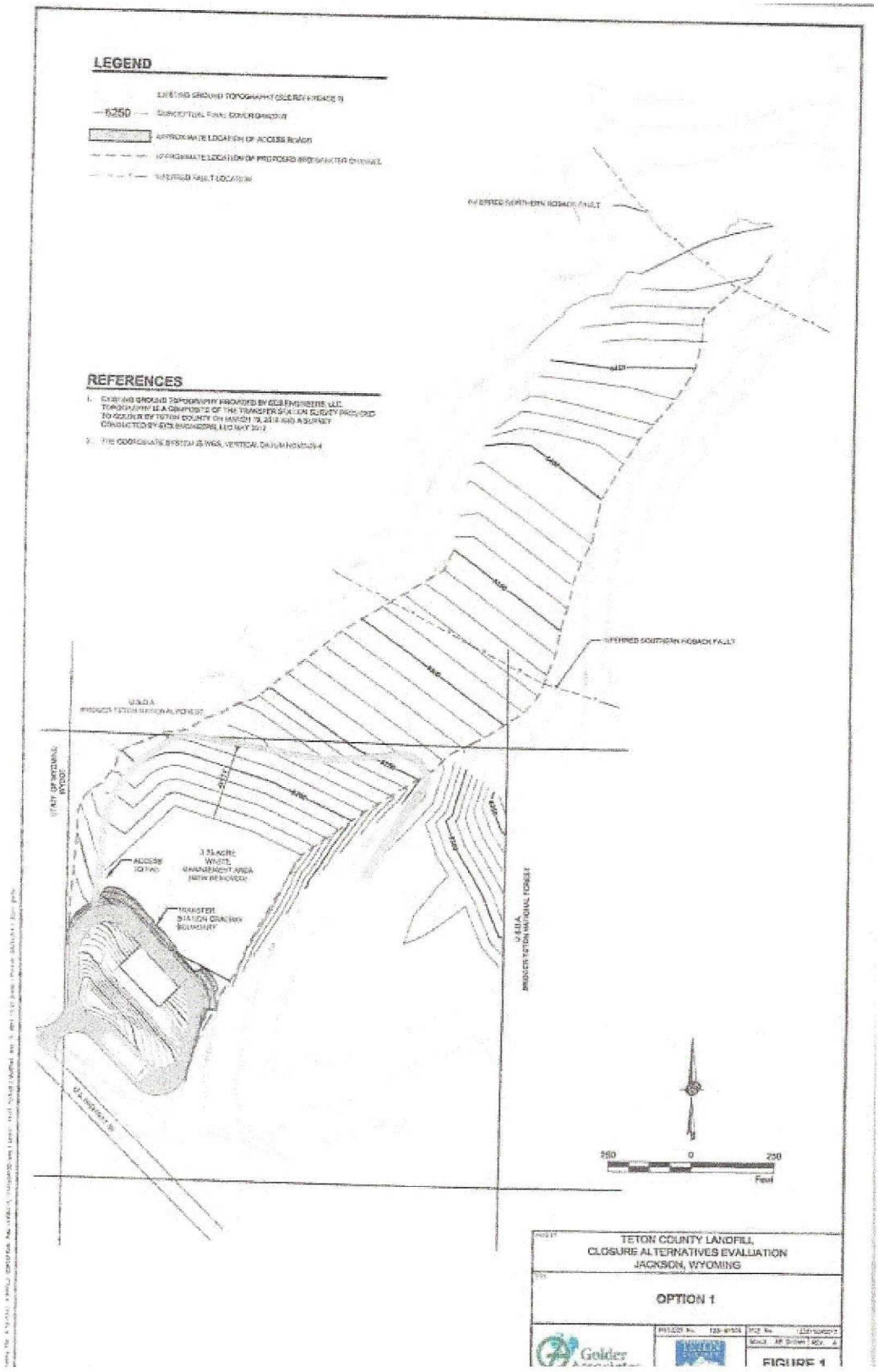

Figure 12a. General drawing of the Teton County Landfill Closure Alternatives Evaluation at the Horsethief Canyon Property.

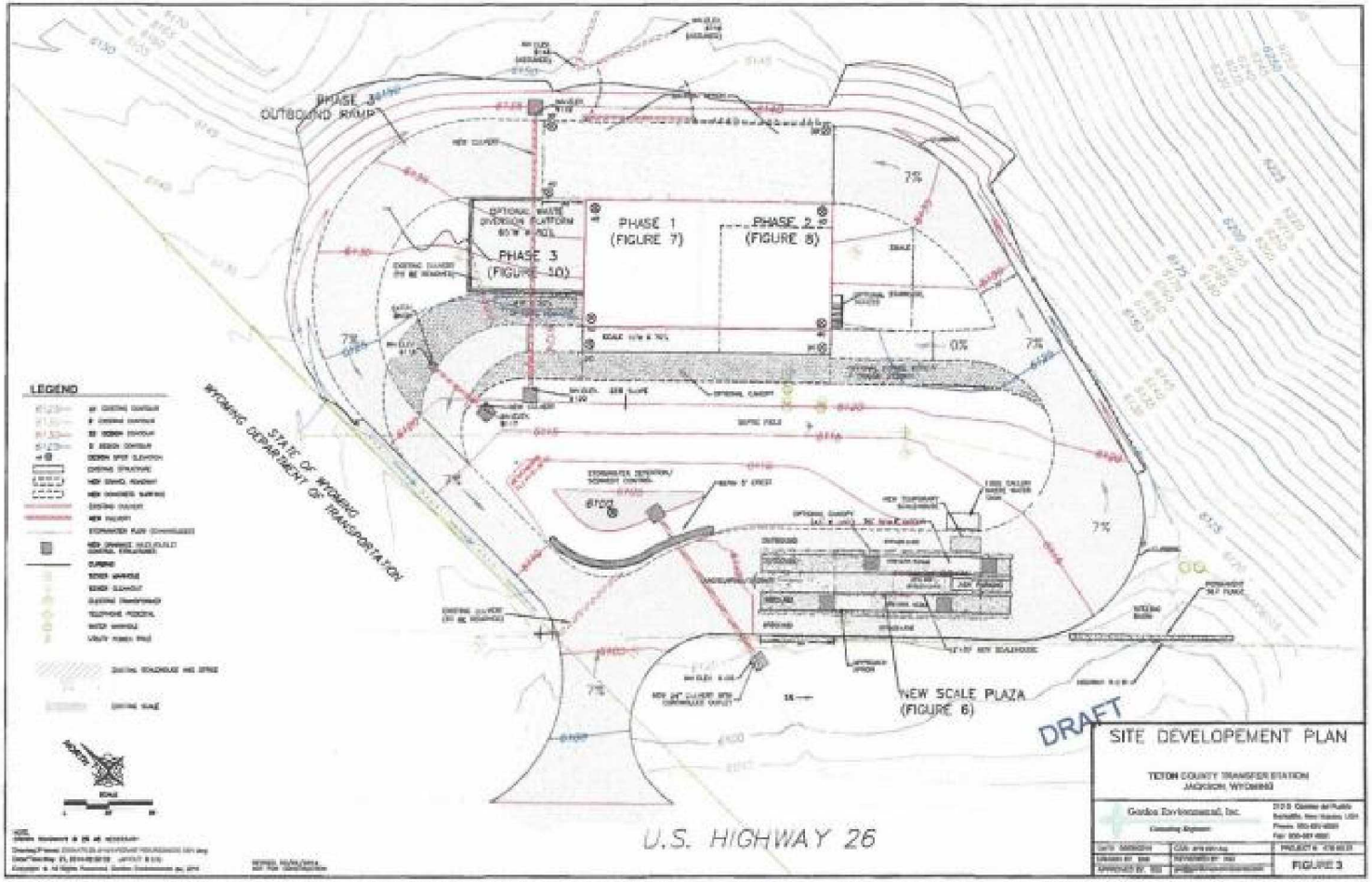

Figure 12b. Aerial photography and the detailed draft site development plan for the Horsethief Canyon Property, Teton County, WY.

APPENDIX B:
PHOTOS OF THE PROJECT SITE

Photo 1. Photograph of the weigh station entrance/exit building at the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 2. Photograph of the main Transfer Station Building at the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 3. Photograph of the main road through the property at the Horsethief Canyon Transfer Station, Teton County, WY.

Photo 4. Photograph of a pile of debris, including metal objects and appliances on the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 5. Photograph of the Teton County Sheriff Impound Yard, located on the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 6. Aerial photograph of the Horsethief Canyon Transfer Station property and the WYDOT property to the north in Teton County, WY.

Photo 7. Photograph of the dead animal pit and soil mounds on the eastern portion of the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 8. Photograph looking down on the mulch, dirt, and debris piles located in the center portion of the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 9. Photograph of previously filled land to the east taken from the top of the ridgeline at the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 10. Photograph of the eastern portion of previously filled land at the Horsethief Canyon Transfer Station property, Teton County, WY.

Photo 11. Photograph of the compost piles at the Horsethief Canyon Transfer Station property, Teton County, WY.

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Photo 11. Photograph of the compost piles at the Horsethief Canyon Transfer Station property, Teton County, WY.

Appendix C:

HORSETHIEF CANYON PROJECT

Development Impact Analysis

Prepared for

Teton County Planning and Development Department

P.O. Box 1727

200 South Willow Street

Jackson, Wyoming 83001

Prepared by

Pioneer Environmental Services, Inc.

P.O. Box 8849

Jackson, Wyoming 83002

December 4, 2014

Table of Contents

List of Tables

1.0 INTRODUCTION

This Development Impact Analysis (DIA) is based on implementing the proposed development described below on the property discussed and identified in the Environmental Analysis for the Horsethief Canyon Project. As Appendix C, this DIA shares Appendix A: Maps and Figures for the Project Area; Appendix B: Photographs and Descriptions of the Project Area; the References; and List of Preparers with the Environmental Analysis for the Horsethief Canyon Project. Tables provided in this DIA have a separate number that includes DIA in the title. The purpose of this DIA is to disclose potential effects and impacts to the project area and identify any possible mitigation measures that could reasonably be implemented and still allow the project to meet the Purposes and Needs identified in the Environmental Analysis.

2.0 PROPOSED DEVELOPMENT

Teton County Integrated Solid Waste and Recycling (TCISWR) is proposing to recap the old landfill on the Horsethief Canyon property and adjacent Bridger Teton National Forest property. As part of the landfill closure, the dead animal pit will be removed from the property. In addition, to meet the needs of Teton County's growing population, they propose to construct a new scale house, transfer station, compost facilities, and associated ancillary facilities (Figures 12, 12a, and 12b: Appendix A of Environmental Analysis).

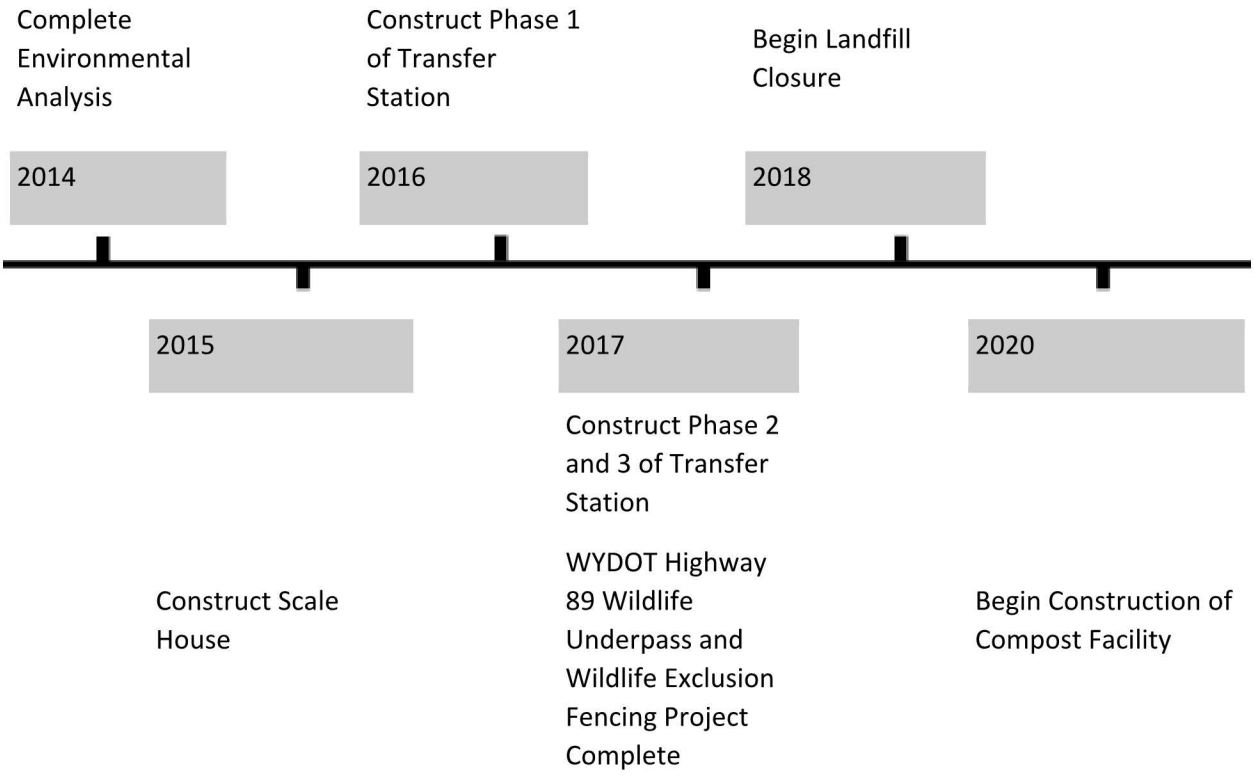
Although the landfill was closed and capped in 1989, groundwater monitoring on the site indicates contamination from municipal solid waste leachate. As a result of groundwater contamination, Wyoming Department of Environmental Quality (WYDEQ) is requiring Teton County to install a more robust cap on the landfill, which will include improved storm water controls. These requirements are planned to be met by the end of 2019. Once capped, the site will remain undisturbed and monitored for at least 30 years post-closure. The goal in recapping the landfill is to minimize the infiltration of surface water, reduce the production of leachate, significantly reduce impacts to groundwater, and in general bring the site into compliance with previous intentions and requirements.

WYDEQ is requiring Teton County to cease operation of the dead animal pit on the Horsethief Canyon property. Once the pit is closed, dead animals will be collected and transported to the landfill in Idaho Falls, ID. The dead animal collection system will be bear and scavenger proofed.

Recapping of the landfill will disturb the Horsethief Canyon site, requiring new facilities and improvements to all areas that are utilized for transfer facilities, waste diversion/recycling and composting operations. In addition, the existing facility cannot accommodate Teton County's expanding population. The population of Teton County has increased by substantially since 1989 when the landfill was originally capped and the transfer facility constructed. The existing facilities no longer safely and efficiently meet the County's solid waste disposal needs. Due to lack of suitable, affordable land for a new solid waste facility in Teton County, improvements of the Horsethief Canyon site are necessary in order to allow for continued transfer station and composting operations, post landfill closure.

The project will be constructed over a 5 year period. A depiction of the project timeline is provided below:

Horsethief Canyon Project Timeline



Important Elements of the Proposed Project

- The scale house will be constructed first and will include the footprint of the existing scale house. However, the new building will be larger and contain 2 scales rather than 1.

- Transfer station construction will begin in 2016 and will be completed in 3 phases over 2 years. A portion of the new transfer station will utilize the footprint of the existing transfer station, but will be larger. All landfill-bound waste will be handled within the transfer station building.

- The recapping of the landfill will begin in 2018 and will involve removing the old cap. A 5 acre area of the old landfill on the Horsethief Canyon property will be re-graded onto a portion of the existing landfill on adjacent NFS land per authorization of the USFS DN (2013). A new landfill cap will be constructed as well as surface water channels. These construction activities are expected to last approximately two years, with construction beginning 2018 and completed by 2020. No construction is planned during the winter months (December 1 to April 30).

- The cap will serve as a barrier to reduce the infiltration of precipitation into the municipal solid waste (MSW), reducing contact between water and the MSW, and thereby reducing the production of leachate and impacts to groundwater. The cap will consist of a relatively impermeable geomembrane that will impede downward movement of precipitation into waste. It will also include a drainage layer on top of the geomembrane that will transmit water to the sides of the cover and to surface water channels. A permeable layer underneath the geomembrane will assist in conducting any landfill gas to the landfill gas vents that will be spaced across the cap (USDA 2013).

- Approximately 10 feet of borrow material will be taken from the top of the ridge on the south side of the Horsethief Canyon property to be used in capping the landfill. The ridge will be re-graded and prepared for compost stockpiling. This is approximately the same location where fill for the previous capping effort was extracted.

- The final phase of this development will be construction of the compost facility. The compost facility will be located in the general area of the existing compost piles but will be expanded to the ridge top on the south side of the Horsethief Canyon site. The early stages of the composting will be in a building or enclosed "in-vessel" system. Once the compost is ready to be stockpiled outside it will be moved to the stockpile area on the south ridge.

- Fencing for the safety of wildlife and humans may be incorporated into the proposed project. The Wyoming Game and Fish Department's (WGFD) input regarding the need, types, and locations for fencing has been solicited. Their recommendations will be considered in the final project design. An addendum to this EA will be submitted to the Teton County Planning Department for final review of fencing type and location (Figures 12, 12a, and 12b).

Figure 12 depicts the proposed development. More detail showing the proposed layout of buildings and facilities is provided in Figures 12a and 12b.

2.1 Teton County Required Setbacks

The Teton County Land Development Regulations prohibit development in protected natural resources and in some cases require development free setbacks from those resources. Specific requirements pertinent to this development are enumerated in the Habitat Impact Assessment section below.

2.2 Habitat Impact Assessment

Implementation of the proposed project will require several vegetation cover types to be modified or destroyed. Table 1.DIA. lists the vegetation cover types associated with various elements of the proposed project as well as the acreage and percent of existing cover types for the overall proposed project. From Table 1.DIA it is clear that the most heavily impacted vegetation cover types will be Developed/Disturbed (9.72 acres) or about 84% of the available acreage of that cover type within the project area (Table 1, EA). The Developed/Disturbed cover type also makes up nearly half (47%) of the 20.89 acres required for the project but has no ranking as far as habitat value. Approximately 9 acres of Grassland cover type are needed to meet the land requirements for implementing the Horsethief Canyon Project. This acreage represents approximately 43% of the 20.89 acres needed. It should be

noted that the Grassland type for this project includes land that was previously disturbed but replanted to grasses such as the ridge area where soil was taken for capping the land fill areas. Grassland cover types have a ranking of 3 by the County for habitat value. The third cover type that makes a significant contribution to land needed for the project is in the category of Landscaped which also has no ranking for habitat value. This project would require approximately 1.5 acres of landscaped area but represents about 79% of that cover type within the proposed project area.

The only high value habitat potentially impacted by the proposed project is the 0.12 acres of Mixed Tall Shrub with a habitat ranking of 8. The project would need about 16% of the 0.77 acres of the Mixed Tall Shrub cover type found within the 40+ acre project area.

Similarly, the project would require 0.26 acres of Sagebrush and 0.42 acres of Mixed Sagebrush cover types (both with a habitat value ranking of 3), respectively. These values each represent about 6% for each of those sagebrush types found within the 40+ acre project area. Excluding the 8.89 acres of the replanted, reclaimed Grassland cover type, approximately 0.80 acres of the three cover types needed for the proposed project have a ranked habitat value. Of those three, only the 0.12 acres of Mixed Tall Shrub has a high value ranking (8) for wildlife habitat. Approximately 84% of the 0.12 acres of Mixed Tall Shrub type impacted by the proposed project (Table 1.DIA) is associated with the Access Road (Figure 12 and 12a). The other two places within the project area where this valuable cover type would be impacted are found within the Borrow Area and Compost site and the Excavation Site (Figures 12 and 12a) and Table 1.DIA. Both of these sites are linear types of development where avoidance of small areas is difficult or may cause impacts at other sites if avoidance were feasible. The species most likely affected by the loss of Mixed Tall Shrubs would be avian species that require nest sites off the ground, foraging ungulates, and small perching birds (Passerines) that require shrubs as perches to rest or forage.

The loss of sagebrush and Grassland habitats could affect sage grouse if they were present at the site and foraging ungulates that browse on sagebrush or graze on grasses.

Table 1.DIA. Impacts of proposed Horsethief Canyon Project on existing vegetation cover types.		
DEVELOPMENT AREA	**COVER TYPE IMPACTED**	**ACRES**
BORROW AREA & COMPOST SITE	Grassland	4.65
	Mixed Tall Shrub	0.01
	Mixed Sagebrush	0.10
	Sagebrush	0.19
	TOTAL	**4.95**
EXCAVATION SITE	Grassland	2.20
	Developed / Disturbed	2.85
	Landscaped	0.004
	Mixed Tall Shrub	0.01
	Mixed Sagebrush	0.05
	TOTAL	**5.11**
RE-GRADE SITE	Grassland	1.63
	Developed / Disturbed	5.00
	Sagebrush	0.07
	TOTAL	**6.70**
TRANSFER STATION DEVELOPMENT AREA	Grassland	0.28
	Developed / Disturbed	1.86
	Landscaped	1.50
	Mixed Sagebrush	0.25
	Sagebrush	0.001
	TOTAL	**3.90**
ACCESS ROAD (Outside of other development areas)	Grassland	0.10
	Developed / Disturbed	0.005
	Mixed Tall Shrub	0.10
	Mixed Sagebrush	0.02
	TOTAL	**0.23**
	GRAND TOTAL	**20.89**
Acres Affected by Cover Type (TC Habitat Ranking*) and Percent of On-site Existing Habitat Affected by This Proposed Project		
Grassland (3)		**8.86 (64%)**
Developed / Disturbed (NR)		**9.72 (84%)**
Landscaped (NR)		**1.50 (79%)**
Mixed Tall Shrub (8)		**0.12 (16%)**
Sagebrush (3)		**0.26 (6%)**
Mixed Sagebrush (3)		**0.42 (6%)**
	GRAND TOTAL	**20.89**
	***Habitat Ranking from Teton County LDRs, NR=None**	

3.0 Federally Listed Species, Unique Resources, and Required Disclosures

3.1 Threatened, Endangered, and Candidate Species

No threatened, endangered or candidate species listed by the U.S. Fish and Wildlife Service are

present on the proposed project site (see Table 2, Section 6.12 of the Environmental Analysis). There is a remote potential for grizzly bear to transit the area but this would be a new range extension for this site, the area affords no cover, and when the project is completed it will afford no foraging opportunity. The site will be active nearly all of the time, portions of it will be lighted, and noise from the operation would likely discourage use of the site during operational hours. Most importantly, in its effort to discourage bears, particularly grizzly bears from being attracted to this site, the Horsethief Canyon project is closing the dead animal pit, transporting any dead animals collected at the facility to an area that has been specifically prepared for this purpose, totally out of bear habitat. In addition, all transfer solid waste will be handled within a new building and will not be available for scavenging wildlife including grizzly bears.

Although there is sagebrush habitat present on the east side of the proposed project, no effect to sage grouse is anticipated because the sage brush habitat on the project area has already been adversely affected by previous extraction of soil, is adjacent to a very active public shooting range, and has not been identified as having any leks or habitat of special concern for sage grouse. The Grassland cover type which can also be used by sage grouse is actually a combination of man-made habitats from earlier reclamation and erosion control efforts. Much of the site is heavily disturbed from use as a landfill, transfer station, composting area, dead animal pit, sheriff impound lot, active shooting range, and related ancillary facilities (buildings) and infrastructure (roads and trails). Sage grouse have not been reported as using the site.

No other species listed by the U.S. Fish and Wildlife Service has potential of using the area during their various life cycles.

3.2 Surface Hydrology

No adverse effects to surface hydrology are anticipated as a result of implementing the proposed project. Conversely, installing material and means to control surface runoff will have a positive effect on the hydrology of downstream resources such as Flat Creek and the Snake River.

3.3 Waterbodies

There are no natural waterbodies present at the project site. There is a small pond that was constructed to detain runoff from the site. This pond will be enlarged in order to better serve the purposes of detention of surface runoff, sequestering of water prior to it being put into the exiting waste water system, and a potential use as a water source for fire protection.

3.4 Floodplain Considerations

The proposed project area is not within a floodplain, hence this concern is not applicable to this project.

3.5 Wetlands

There are no wetlands on site, hence concern for this resource is not applicable to this project. There are a few areas along the intermittent stream that may have riparian species growing along the area where water occasionally flows but there does not appear to be predictable hydrology, hydrophytic vegetation, or hydric soils within these sites on a consistent basis. No wetland survey was done partly because the analysis of the site occurred in October and November and because no evidence was seen that would merit that a detailed wetland survey be done.

3.6 Groundwater

The extensive efforts to control and protect groundwater below this site is one of the main driving forces for implementing re-capping the site on NFS land as well as certain land within the project site. Adding more top soil, general cover, the geomembrane, channelizing surface runoff, and other efforts described for the proposed project are all designed to improve groundwater quality and protect downstream resources such as Flat Creek, the Snake River, and the aquifers of Teton County. The efforts to protect the quality of the groundwater and eliminate the contributions of leachates from the site will be monitored for at least 30 years.

3.7 Wildlife

In general wildlife are usually most affected over the long term by the loss of habitat, particularly important habitat unique to a species such as a nest site that is consistently used or habitat that provides crucial life history requirements such as movement to/from important seasonal ranges. The Horsethief Canyon Project is located within habitat that is generally not particularly rare or vital, has a lengthy history of human disturbances such as operation of the previous landfill and the current use for waste transfer, composting, the sheriff impound lot, and an active public shooting range. There are two possible exceptions to this scenario; 1) the project site at the mouth of Horsethief Canyon is within a migration area that affords movement to/from important ungulate habitats south on the valley floor to/from the extensive habitats found on the NFS land to the north. The other exception is that there is a peregrine falcon nest near but not within the site. Other than these two exceptions, the site does not have extensive value as wildlife habitat because of the absence of aquatic, riparian, woodland, and other diverse habitats. However, it does have a potential negative value if the disposal of dead animals and waste that can be eaten by scavenging wildlife (bears, coyotes, foxes, various avian species, etc.) are not properly managed. More detail on these subjects are given below.

3.7.1 Bald Eagle

Operation of the proposed facilities will be similar to what is currently occurring on the site and therefore will not result in additional long term impacts to bald eagles. Figure 5 depicts the known bald eagle nests in the vicinity of the proposed project. The closest known nest is approximately 1.4 miles (about 7400 feet) west of the site which is over 10 times the critical distance identified in the LDRs. There have not been documented nesting sites within a one-mile buffer of the project area in over 30 years, and there are a total of 11 documented occurrences of bald eagles within a one-mile buffer of the project area since 1979 (WYNDD 2013). Individuals foraging in the project area could be disturbed by the construction noise associated with development of the project; however, these effects would be temporary and would affect few individuals.

3.7.2 Peregrine Falcon

An active peregrine falcon nest is located approximately 0.25 miles (1,320 feet) north of the proposed project site. The nest was fully discussed in the USFS DN (USFS 2013). The decision to implement the proposal to cap and reclaim the portion of the previous landfill included provisions to protect the nest and its use during specific times. Teton County agreed to adhere to the restrictions in order to protect this resource. Those same restrictions will apply to the proposed Horsethief Canyon project within the distances required. The restrictions will not affect implementation of the recapping, re-contouring, and improvement project but it will restrict when activities can occur. In general, the restrictions included no construction activity between April 1 and July 31 of each year.

3.7.3 Snake River Fine-spotted Cutthroat Trout

There is no occurrence of this species within the project area as there are no rivers, streams, or creeks capable of sustaining this species during any stage of its life cycle. However, the species could be indirectly affected by pollutants coming from the project site and leaching into Flat Creek or the Snake River. This is one reason why the efforts to upgrade the facility and diminish the potential of polluting ground water are important.

3.7.4 Trumpeter Swan

The proposed project is not expected to negatively impact trumpeter swans. There are no known active trumpeter swan nests in the project area. There have been three occurrences in the project area between 1980 and 1987, and three known occurrences within a one-mile buffer of the project area since 2003 (WYNDD 2013). Individuals foraging in the project area could be disturbed by the noise associated with the project construction activities; however, these effects would be temporary and would affect few individuals.

3.7.5 Moose

The project site itself does not contain any critical winter or summer range but it does serve as winter/yearlong range. There will be a loss of 0.68 acres of sage brush habitat and about 8.7 acres of Grassland habitat both on the eastern half of the project area that could potentially be used by moose. However, the active shooting range on the southeast corner of the project area and the activities associated with the transfer and composting facilities and other ongoing work at the site pose an existing disturbance that reduce potential use of this habitat. Moose moving through the area will have the opportunity to use a specially constructed ungulate underpass less than a .25 mile north of the boundary of the project. The location of the underpass is depicted in Figure 12. The intent of that WYDOT project is to reduce wildlife/vehicle collisions on Highway 89 and to provide for continued wildlife movement to/from the NFS land to the north to/from the Wildlife Habitat Management Area to the southwest of the project area.

3.7.6 Elk

Elk are not expected to be directly harmed under implementation of the proposed project due to restricting the period when construction would take place (June 1 to November 30) and a prohibition on construction from December 1 to April 30 each year. Under implementation of the proposed project there would be a loss of 0.68 acres of sagebrush and 8.9 acres of Grassland habitat, mostly on the eastern portion of the project area. The aspect of this area is relatively flat (not west or south facing) and the area is adjacent to the existing public shooting range.

Individual elk foraging in the project area could be disturbed by noise associated with construction of the propose project; however, these effects would be temporary and would affect few individuals. Implementation of the proposed project may indirectly affect elk by temporarily altering a small amount of suitable foraging habitat in the project area. The proposed project would neither help nor hinder numbers of wintering elk in the vicinity because the relative amount of habitat affected is very small and the types of habitat affected are present on adjacent NFS land in greater abundance and without the disturbances of the transfer station or shooting range. The inconsequential effect on elk habitat occurs at very small scale compared to those that operate on entire herd units. Thus, the contribution of the proposed project toward the population objective is insignificant. As noted for moose above, it is

planned by the WYDOT to construct a specially designed ungulate underpass in order to reduce vehicle collisions with ungulates crossing Highway 89 coming from/to the NFS land to the north to/from the Wildlife Habitat Management Area to the southwest of the project area. The underpass would enable elk travelling to/from Horsethief Canyon to go either through the site or around it to the west in order to safely cross Highway 89. This general route of travel is what ungulates have used in the pass and was one of the reasons why this location for the future underpass was selected.

3.7.7 Mule Deer

Mule deer do occur in the project area and the project area lies within existing mule deer crucial winter/yearlong range (Figure 8). However, wintering mule deer are not expected to be directly harmed during construction if timing restrictions (no vegetation removal during December 1 through April 30) were required. Direct habitat loss would be about 8.9 acres of grassland and 0.68 acres of sagebrush plus another 0.12 acres of mixed tall shrub cover types. A total direct loss of approximately 10 acres of mule deer foraging habitat would occur if the proposed project were implemented. The developed/disturbed cover type and the general activities associated with an ongoing waste management/composting operation and active shooting range combine to make the 40+ sdracre site relatively poor quality habitat. However, its juxtaposition at the mouth of Horsethief Canyon make its contribution as movement habitat important.

Individual mule deer foraging in the project area could be disturbed by noise associated with implementation of the propose project; however, these effects would be temporary and would affect few individuals. Implementation of the proposed project may indirectly affect mule deer by temporarily altering the use of a small amount of suitable foraging habitat near the project area.

Golder evaluated the contribution of the cumulative actions for implementing the capping and reclamation of the landfill on NFS land. They then inferred the effects of that proposed project on mule deer at the herd unit scale. The thresholds for the analysis were the herd unit objective. That proposed project which involved more suitable mule deer habitat than the one being considered by the County, did not contribute toward achieving the herd objectives because it did not create nor destroy more favorable habitat conditions (woody browse) for the species, and thus carried no consequences for survival and production of individual animals. Although the mule deer (Sublette) herds are currently below objective, the implementation of the project on NFS land did not contribute to changes in population numbers as desired by the Wyoming Game and Fish Commission (Golder Associates 2013 and USFS 2013). Implementation of the proposed Horsethief Canyon Project would have even less impact because it is within a parcel that is already heavily impacted by ongoing activities.

3.7.8 Migratory Birds

Aside from sage brush habitat, the project area offers very little in the form of nesting structure, foraging habitat, or other important life cycle requisites for migratory birds. The loss of roughly 8.9 acres of grassland cover type is important but one needs to recall that the grassland affected has already been impacted by previous activities such as soil removal. The species affected by the loss of 8.9 acres of grassland and0.68 acres of sagebrush cover types would mostly be species that are ground nesters. The loss of 0.12 acres of mixed tall shrub is important but again that habitat is also already affected by being along existing roads, impervious surfaces, or areas that have been previously affected by removing soil (such as on the eastern ridge).

3.7.9 Amphibians

The lack of aquatic habitat or moist soils contribute significantly to the lack of amphibians within the proposed project area. No impacts to this species group are anticipated with the implementation of the proposed project.

3.7.10 Bears

Black bears are common throughout Teton County. The potential for the project area to be visited by black bears is largely dependent on how available carrion and waste foods are at the site. It is one of the purposes of the proposed project to eliminate the inadvertent attraction of black bears to the site. To accomplish this the Horsethief Canyon Project will adhere to the regulations for activities within Bear Conflict Priority Area 1 (Figure 9) and most importantly eliminate the dead animal pit, handling all waste transfer within one of the new buildings, and then transporting it from the project area.

No direct effects to grizzly bears are expected as a result of the proposed project because they currently are rare in the area and their known occupation areas are located outside the surrounding project area. The likelihood of a grizzly bear accidently obtaining human food that is associated with project operations is unlikely given the precautions to be taken, planned design, and operation of the site. Even though grizzly bears are not present in the project area, the aforementioned measures will eliminate the opportunity for grizzly bears to be drawn to the site or be able to acquire human foods or carrion.

3.7.11 Wildlife Feeding

Section 3230 of the LDRs prohibits knowingly or intentionally feeding or providing feed attractants to wildlife. The existing transfer station operation includes a dead animal pit which on occasion has attracted bears and birds. As part of the proposed project the dead animal pit will be removed from the property. Once the pit is closed, dead animals will be collected and transported to the landfill in Idaho Falls, ID. The dead animal collection system will be bear proofed. Municipal solid waste consolidated for transfer to the landfill is and will continue to be located within the transfer station building. The compost materials are and will continue to be landscape waste only which do not serve as a food attractant to wildlife.

3.7.12 Wildlife Friendly Fencing

Section 49220 of the LDRs require any new fencing be wildlife friendly and allow for free and easy movement of wildlife. However, this section provides exceptions for special purpose fencing to be approved by the Planning Director. Comments on fencing requirements for the health and safety of wildlife and humans at the Horsethief Canyon site were solicited from the WYGFD. Recommendations from WYGFD regarding fencing was received in late-November (WYGFD 2014) and recommended 'no fencing' for the facility. The initial design for the Horsethief Canyon Project did not include fencing of the facility but the eventual implementation of the fencing and wildlife underpass being planned for implementation by the WYDOT in 2017 may merit reconsidering how large ungulates could most effectively be directed toward the underpass, use the remaining suitable habitat, and still insure that the facility does not afford inadvertent opportunities to provide bears with food. Fencing that would exclude bears from that portion of the facility where waste transfer occurs and no fencing for the rest of the site could be considered in order to accomplish objectives for both groups of wildlife species.

3.8 Wildlife Impact Summary

Table 2.DIA. Wildlife Impact Table.*

Species	Impact (yes/no)	Short/Long Term	Intensity of Impact
Bald Eagle	No	None	None
Peregrine Falcon	No	None*	None
Snake River Fine-Spotted Cutthroat Trout	No	None	None
Trumpeter Swan	No	None	None
Moose	No	None*	None
Elk	No	None*	None
Mule Deer	Yes	Short term habitat loss	Minor*
Migratory Birds	Yes	Short term habitat loss	Minor*
Amphibians	No	None	None
Bears	No	None*	None*

* Assumes that the project is implemented with the design and operation plans as described in the Horsethief Canyon Project, timing restrictions are enforced, mitigation measures noted below are implemented, and WYDOT constructs the proposed underpass on Highway 89.

4.0 Natural Resource Overlay and Other Affected Resources

Figure 10 depicts the entire proposed project area within the NRO and a portion of the southwest corner within the SRO. The proposed project will not change the existing land uses on the property. The Horsethief Canyon Project site was operated as a trash transfer station when the NRO and SRO were established in Teton County. Implementation of the proposed project would continue these uses within these areas and would not constitute changes in conditions or activities.

4.1 Short-Term Impacts

Air Quality: the construction activities related to the proposed development will cause a short-term impact on air quality in the project vicinity. During construction, the landfill cap will be re-graded and replaced on both Horsethief Canyon project site and the adjacent 17.8 acre Forest Service site. Exposed soil could contribute to an increase in the dust particulates in the local air column. This impact will be short-term. The effects would last only as long as the estimated construction period (USDA 2013).

Impacts from fugitive dust can be minimized with best management practices such as treatment of haul roads, stockpiles and active work areas with a dust suppressant, and vegetation of soil stockpiles.

The new landfill cap will include a gas collection layer consisting of a 1-foot-thick layer of permeable material (sand, shredded tires, or a geosynthetic), and gas vents (6-inch diameter perforated PVC pipe), designed to collect and vent landfill gas (methane and carbon dioxide), preventing build-up of gasses. Emissions will decrease over time and will not exceed current levels seeping from the existing cap (USDA 2013).

Construction Noise: Excavation, grading, paving, and general noise associated with the construction phases of the project will be present over the several years of construction. The project site is located a substantial distance (>0.25 mile) from persons/businesses that might be able to hear the noise. Ambient noise levels during construction are generally below 60 dbH on the A-Scale which is normal for construction activities. The site is not located near any noise-sensitive sites such as schools, hospitals, or similar areas. Once construction is completed this short-term impact will cease.

Surface Water Runoff/Storm Water: there will be a short-term increase in surface water runoff during construction and prior to control elements being installed. This will be a short-term impact and will be controlled under provisions of the WDEQ required Storm Water Plan for the site.

4.2 Long-Term Impacts

Habitat Loss: there will be a permanent loss of habitat cover types as listed in Table 1.DIA.

Scenic Resources: the waste transfer site will be larger and encompass more buildings than what are currently at the site. This change in view will be a permanent addition to the site but will not differ markedly from what is currently seen from Highway 89.

4.3 Project Vicinity Projects

Teton County Scenic Preserve Trust conservation easement and Wyoming Highway Commission land is located adjacent and to the west of the property. NFS land (Bridger Teton National Forest, Jackson Ranger District) are to the north and east of the property. The NFS land provides opportunities for year round recreation, hunting, and other outdoor activities. Access to the NFS land, particularly Horsethief Canyon, is limited to trails from either Game Creek or through the existing public shooting range or Teton County Transfer Station. The Wyoming Game and Fish Department owns the property to the south of the transfer station. The land trust and WYGF properties provide habitat for several wildlife species and open space as a scenic preserve. The WYGF have expressed an interest in establishing a more formal and permanent access route (Figure 12) to Horsethief Canyon as either part of this project or separately (WYGF 2014). South Highway 89 cuts through the south west corner of the property and is the main highway from Hoback Junction, Alpine and points south of Alpine. Highway 89 is the main north/south transportation link for Teton County.

WYDOT plans to construct a wildlife underpass less than a .25 mile north of the Horsethief Canyon property on Highway 26/89/189/191 (Figure 12). There is a drainage at this location which is evident on the aerial photography. Construction of the underpass will likely begin at the end of 2016 and is anticipated for completion in 2017. The underpass is part of a larger project which includes Highway 26/89/189/191 improvements from Hoback Junction to the south end of Little Horsethief Canyon Subdivision. Both sides of the entire highway corridor will be fenced with wildlife exclusion fencing

(similar to the fencing in the highway corridor along the National Elk Refuge) and wildlife guards will be constructed at approaches into properties (these are similar to a double cattle guard). WYDOT also plans to make other changes and improvements to the Highway 89 corridor several miles farther south of the proposed project site.

5.0 MITIGATION

5.1 Wildlife and Habitat

The following measures are suggested in order to reduce impacts to wildlife (not intended to be in any order of importance).

- Restrict construction within the undeveloped portions of the site to June 1 – November 30 in order to allow migration through and around the site and to minimize the chance of 'taking' (as defined by the USFWS under provisions of the Migratory Bird Treaty Act) migratory birds that nest in the Grassland and Sage Brush cover types.
- Restrict destruction of mixed tall shrub to a minimum and replace the acreage of what is destroyed of this cover type on a 3:1 ratio within appropriate sites on the project area.
- Keep external lighting to a minimum especially during December 1 – May 31 in order to allow wildlife passage through the site during crepuscular periods.
- Adhere to the Teton County LDRs as they apply to avoiding the attraction of bears and inadvertently providing food, especially during the transition period when the old facility is being taken out and the new facility is being built.
- Once the new transfer station is operational make certain that no waste, carrion or other edible material is left where bears and scavengers (avian and mammalian) have access.
- Once the required soil is removed from the ridge or other site, replant/reseed the area with appropriate species of plants so that it can again become wildlife habitat.
- Follow the Best Management Practices and Special Provisions for wildlife found in the Decision Notice from the USFS for the adjoining recapped landfill.
- Incorporate the recommendations from the WYGF regarding fencing of the site.
- Coordinate with the WYDOT in regards to the construction of the planned wildlife underpass on Highway 89 as this will eventually be the main way for wildlife to traverse the project site and move to/from existing habitats on NFS land and wildlife habitat west of Highway 89.
- Continue to monitor leaching from the site that could affect cutthroat trout and other wildlife associated with downstream water resources.
- Impost trail closures on the proposed public access trail during times of critical wildlife movement.

5.2 Scenic Resources

- Plant a row of blue spruce or other acceptable evergreen species between Highway 89 and the new transfer station in order to screen the facility from the highway.
- Reseed and/or revegetate areas where soil was taken to cap the landfill in order to reduce runoff and enhance visual quality.

- Paint or choose colors for the new buildings and facilities that are natural tones and reduce sharp contrast in line, form, and texture so that the site blends with its surroundings as much as possible.

5.3 Water Quality and Resources

- Fully implement the monitoring program to track pollutants coming from the site.
- Pay special attention to controlling runoff and erosion during the construction phases of the project, continue this effort until the site is revegetated and surface runoff is fully controlled.
- If the storm water or surface water plan elects to use the remains of the intermittent stream channel, seize the opportunity to capture that water and use it to enhance the development of mixed tall shrub or perhaps even riparian habitat.
- Have a qualified wetland scientist investigate the intermittent stream course on the site to determine if it qualifies as a 'channel' under terms of the Clean Water Act then respond accordingly to the USACE.

5.4 Noise

- Reduce noise during crepuscular periods (dawn and dusk) if possible during the migration period (December 1 – May 30) in order to facilitate ungulates an opportunity to traverse the project site when going to/from NFS land and wildlife habitat to the west.
- Plant a row of blue spruce or other acceptable evergreen species between Highway 89 and the new transfer station.

5.5 Noxious Weed Control

- Prepare a noxious weed control plan and follow that plan, especially during the construction phases when bare soil may be present.
- Follow the Best Management Practices regarding the washing of equipment that is being brought onto the site in order to avoid spreading noxious weeds and creating competition for native cover types.
- Make certain that yearly or bi-yearly monitoring/reporting by qualified workers is part of the Noxious Weed Plan.

5.6 Air Quality

- Reduce fugitive dust during construction by treatment of haul roads, watering as appropriate, and keeping speeds below 10 mph.
- Fully implement and monitor the performance of the gas collection layer of the new landfill cap in order to assure that airborne pollutants are not being emitted from the site.

6.0 CONCLUSION

The proposed Horsethief Canyon Project does not have any viable off-site alternatives or significantly different onsite configurations. The purposes and needs for the project are well established and viable. The proposed project should be effectively and timely implemented in order to reduce the continuance of ongoing deleterious impacts. Therefore the best way forward is to implement the plan as described by Golder Associates with oversight by Teton County or an assignee. The ongoing impacts to ground

water need to be eliminated for onsite and downstream reasons. The impacts to wildlife (especially scavengers) will largely be reduced by effectively implementing the plan with the mitigation measures noted above. Impacts to crucial big game winter range is already occurring with the existing transfer facility. However, that impact will become more important as the size and use of the transfer facility increases. Implementing some of the mitigation measures for decreasing light, noise, and seasonal restrictions on timing of construction will help to reduce that impact. However, when Highway 89 is widened and improved, the crossing of that highway by wildlife (especially large ungulates) will become more of a factor than the proposed project. Consequently, the timely and effective implementation of the wildlife underpass proposed for construction near the southwest corner of the proposed project site becomes paramount. The placement or non-placement of fencing to either direct or manage movement through the site is very important and should be done with close coordination and discussion among Teton County, WYGF, and WYDOT.

Impacts associated with habitat loss are minimal in terms of losses of the single high ranking cover type (mixed tall shrub). The opportunity to replace the function and value of the 0.12 acres of mixed tall shrub (ranking of 8) can be done on site by using the existing intermittent stream course or other site where water is being channeled. Teton County should confirm that the intermittent stream does not have an established bed-and-bank as defined by the USACE regulations under provisions of the Clean Water Act. If it does then the County should apply for a Nationwide Permit to fill or alter that channel (if it is a channel).

Form 1860-9
(January 1988)

The United States of America

To all to whom these presents shall come, greeting:

WYW 82509

WHEREAS

RELEASED	
INDEXED	✓
ABSTRACTED	✓
SCANNED	

TETON COUNTY

is entitled to a land patent pursuant to the Recreation and Public Purposes Act of June 14, 1926, as amended, 43 U.S.C. 869, et seq. (2006), for the following described land:

Sixth Principal Meridian, Teton County, Wyoming

T. 40 N., R. 116 W.,

sec. 27, SW¼NW¼.

The land described contains approximately 40.00 acres.

NOW KNOW YE, that there is, therefore, granted by the UNITED STATES unto the above named claimant the land above described, for solid waste disposal/transfer station purposes, TO HAVE AND TO HOLD the said land with all the rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto belonging, unto the said claimant, its successors and assigns, forever; and

EXCEPTING AND RESERVING TO THE UNITED STATES:

1. A right-of-way thereon for ditches or canals constructed by the authority of the United States pursuant to the Act of August 30, 1890, 43 U.S.C. 945;

Patent Number 49-2008-0017

GRANTOR: UNITED STATES OF AMERICA
GRANTEE: TETON COUNTY WYOMING
Doc 0733077 bk 703 pg 94-99 Filed At 16.34 ON 06/30/08
Sherry L Daigle Teton County Clerk fees: 0 00
By Mary Smith Deputy

2. All the minerals in the lands so patented, and to it, or persons authorized by it, the right to prospect for, mine, and remove such deposits from the same under applicable law and regulations to be established by the Secretary of the Interior;

3. The right to itself, its permittees or licensees to enter upon, occupy, and use any part or all of said lands necessary, in the judgment of the Federal Energy Regulatory Commission, for the purposes of Part 1 of the Federal Power Act of August 26, 1935, as amended (16 U.S.C. 818). The United States, its permittees, lessees, and licensees shall not be responsible or held liable or incur any liability for the damage, destruction, or loss of any land, crops, facility installed or erected, income, or other property or investments resulting from the use of such lands, or portions thereof, for hydroelectric development at any time where such development is made by or under the authority of the United States. Furthermore, in the event the reserved lands are required for hydroelectric development, any structures or improvements placed thereon found to interfere with such development shall be removed or relocated as necessary to eliminate such interference at no cost to the United States or its permittees or licensees; and

SUBJECT TO:

1. **Those rights for powerline purposes granted to Lower Valley Power and Light, its successors or assigns, by Right-of-Way Serial No. Wyoming 87324, under Title V of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1761-1771;**
2. **Those rights for powerline purposes granted to Lower Valley Power and Light, its successors or assigns, by Right-of-Way Serial No. Wyoming 87325, under Title V of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1761-1771;**
3. **Those rights for gun club purposes granted to Jackson Hole Gun Club, its successors or assigns, by Right-of-Way Serial No. Wyoming 122378, under Title V of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1761-1771; and**
4. **Those rights for highway purposes granted to the Wyoming Department of Transportation, its successors or assigns, by Right-of-Way Serial No. Wyoming 266680, under the Federal Aid Highway Act, 23 U.S.C. 317(A).**

Teton County, its successors or assigns, shall comply with all Federal and State laws applicable to the disposal, placement, or release of hazardous substances (substance as defined in 40 CFR Part 302).

Teton County, its successors or assigns, assumes all liability for and shall defend, indemnify, and save harmless the United States and its officers, agents, representatives, and

es (hereinafter referred to in the clause as the United States), from all claims, loss, damage, actions, causes of action, expense, and liability (hereinafter referred to in this clause as claims) resulting from, brought for, or on account of, any personal injury, threat of personal injury, or property damage received or sustained by any person or persons including the patentee's employees) or property growing out of, occurring, or attributable directly or indirectly, to the disposal of solid waste on, or the release of hazardous substances from the SW¼NW¼ of section 27, in T. 40 N., R. 116 W., 6th P.M., Wyoming, regardless of whether such claims shall be attributable to: (1) the concurrent, contributory, or partial fault, failure, or negligence of the United States, or (2) the sole fault, failure, or negligence of the United States.

Provided, that no portion of the land covered by this patent shall under any circumstances revert to the United States.

The land described above has been conveyed for use as a solid waste disposal/transfer station site. Records describing location of cells and other information about the solid waste disposal site will be available from Teton County. Upon closure, the site may contain small quantities of household hazardous waste as determined in the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901), and defined in 40 CFR 261.4 and 261.5. Although there is no indication these materials pose any significant risk to human health or the environment, future land uses should be limited

to those which do not penetrate the liner or final cover of the landfill unless excavation is conducted subject to applicable State and Federal requirements.

The grant of the herein described land is subject to the following reservations, conditions, and limitations:

1. The patentee or its successor in interest shall comply with and shall not violate any of the terms or provisions of Title VI of the Civil Rights Act of 1964, 78 Stat. 241, and requirements of the regulations, as modified or amended, of the Secretary of the Interior issued pursuant thereto, 43 CFR 17, for the period that the lands conveyed herein are used for the purpose for which the grant was made pursuant to the act cited above, or for another purpose involving the provision of similar services or benefits.

2. The United States shall have the right to seek judicial enforcement of the requirements of Title VI of the Civil Rights Act of 1964, and the terms and conditions of the regulations, as modified or amended, of the Secretary of the Interior issued pursuant to said Title VI, in the event of their violation by the patentee.

3. The patentee, or its successors in interest will, upon request of the Secretary of the Interior or his delegate, post and maintain on the property conveyed by this document, signs and posters bearing a legend concerning the applicability of Title VI of the Civil Rights Act of 1964 to the area or facility conveyed.

4. **The reservations, conditions, and limitations contained in paragraphs 1-3 shall constitute a covenant running with the land, binding on the patentee and its successors in interest for the period for which the land described herein is used for the purpose for which this grant was made, or for another purpose involving the provisions of similar services or benefits.**

5. **The assurances and covenant required by paragraphs 1-4 above shall not apply to ultimate beneficiaries under the program for which this grant is made. "Ultimate beneficiaries" are identified in 43 CFR 17.12(h).**

IN TESTIMONY WHEREOF, the undersigned authorized officer of the Bureau of Land Management, in accordance with the provisions of the Act of June 17, 1948 (62 Stat 476), has, in the name of the United States, caused these letters to be made Patent, and the Seal of the Bureau to be hereunto affixed.

GIVEN under my hand, in CHEYENNE, WYOMING the EIGHTEENTH day of JUNE in the year of our Lord two thousand and eight and of the Independence of the United States the two hundred and THIRTY-SECOND

By Tamara J. Gertsch
Tamara J. Gertsch
REALTY OFFICER
BRANCH OF FLUID MINERAL OPERATIONS, LANDS AND APPRAISAL

Patent Number **49-2008-0017**