



# GALLEY FAMILY FOREST STEWARDSHIP PLAN

Prepared by Todd Haines,  
Certified Forester

FORESTRY  
CONSULTANT  
AND CAMP  
BOOKS LLC



TODD\_HAINES@HOTMAIL.COM



505.934.1033



**TODD HAINES**  
CERTIFIED FORESTER

## Table of Contents

<b>Section I. Overall Property Information .....</b>	<b>3</b>
Landowner Contact Information .....	3
Legal Description .....	3
Property History.....	3
Goals and Objectives.....	4
<b>Section II. Resource Descriptions.....</b>	<b>6</b>
General Description.....	6
Fish and Wildlife Habitat with Key Species.....	6
Soil and water resources .....	11
Recreation and Aesthetic Resources.....	13
Grazing & Browse .....	14
<b>Section III. Timber Inventory with Forest Resource Assessment.....</b>	<b>16</b>
Consolidated Property Map .....	16
Forest Resources and Inventory.....	16
<b>Section IV. Forest Protection .....</b>	<b>18</b>
Forest Insects .....	18
Forest Disease.....	19
Fire.....	20
Noxious Weeds.....	21
Heritage Resources.....	23
<b>Section V. Forest Management Recommendations.....</b>	<b>24</b>
<b>Appendix A: Rare Plants for Sublette County .....</b>	<b>32</b>
<b>Appendix B: Soil Information .....</b>	<b>33</b>
<b>Appendix C: Troublesome Weeds of Wyoming .....</b>	<b>70</b>
<b>Appendix D: State Wildlife Action Plan for Wyoming.....</b>	<b>71</b>
<b>Appendix E: Timber Inventory .....</b>	<b>72</b>
<b>Appendix F: Link to a list of commonly used forestry definitions .....</b>	<b>75</b>
<b>Appendix G: Wyoming Best Management Practices.....</b>	<b>76</b>

## Section I. Overall Property Information

### Landowner Contact Information

**Name:** Steve and Blanche (Bunnie) Galley Property

**Address:** 555 Waggener Circle, Green River, WY 82935

**Phone #:** (307) 870-4968

**Tree Farm Number:** N/A

**Email address:** bsgalley@wyoming.com

**County:** Sublette **State:** Wyoming

### Legal Description

**Section:** W ½ NW ¼ NW ¼ Section 6 Township: 35 NORTH;  
**Range:** 113 WEST

**Centroid of Property:** *(Listed in decimal Degrees)*

- **Latitude** | 43.03796N
- **Longitude** | -110.39038W

**Acreage / Range in Elevation:** 2 triangular lots comprising one rectangle Approximately 20 total acres / 8,180 feet MSL

### Rectangular System of Land Survey Zones in Wyoming

Wyoming is divided into four zones for the State Plane Coordinate System (SPCS) [www.laws9.com](http://www.laws9.com):

- **East Zone** | Laramie, Albany, Platte, Niobrara, Converse, Weston, Crook, Campbell, Goshen
- **East Central Zone** | Carbon, Natrona, Johnson, Sheridan, Washakie, Big Horn
- **West Central Zone** | Sweetwater, Fremont, Hot Springs, Park
- ★ **West Zone** | Uinta, Lincoln, Sublette, Teton, and Yellowstone National Park

Each zone has its own central meridian, but the **Sixth Principal Meridian** is the primary reference for most of the state.

### Property History

The Galley family property borders the Bridger–Teton National Forest and has been under continuous private ownership since 1981, when it was acquired by Steve and Blanche Galley. The original purchase encompassed mixed conifer and aspen cover types, characteristic of the Upper Green River Valley, along with associated riparian and meadow components. From the outset, the land was used primarily for seasonal family recreation, allowing the owners to observe long-term ecological patterns and natural forest processes with minimal disturbance.

In 1989, a small cabin was constructed on the site. The structure was placed to avoid sensitive areas, limit soil displacement, and maintain the natural forest character. Access, utility placement, and use patterns have historically been low impact, with no commercial timber harvests and only minor selective firewood gathering for personal use. The property’s vegetation, wildlife presence, and forest health conditions have therefore remained largely representative of the surrounding landscape.

Over the past four decades, the family has maintained a stewardship-oriented approach focused on preserving forest integrity, sustaining wildlife habitat, and reducing the risk of insect infestation and wildfire. Informal monitoring of tree health, fuel accumulation, and regeneration has guided small-scale thinning, hazard-tree removal, and ongoing defensible space work around the cabin. These activities have been implemented to support stand resilience and maintain safe access to the property.

As the property transitions into a formal management planning phase, the goal is to continue this long-standing pattern of responsible care. Future management will emphasize forest health, fuels reduction, habitat enhancement, and long-term sustainability, consistent with both family objectives and the ecological conditions of the Bridger–Teton interface.

---

## Goals and Objectives

### **GOAL 1 – MAXIMIZE THE OVERALL FOREST HEALTH OF THE PROPERTY**

The owners seek to maintain a resilient, vigorous forest capable of withstanding natural disturbances, supporting diverse age classes, and sustaining long-term ecological function.

#### **Objective 1.1 – Implement Forest Thinning and Stand Treatments**

Conduct thinning and related silvicultural treatments to achieve an effective and sustainable basal area appropriate for the site. Treatments will reduce overcrowding, improve vigor, and support regeneration where necessary.

#### **Objective 1.2 – Monitor and Manage Insects and Disease**

Regularly evaluate forest conditions to identify insect or disease activity. Where issues are detected, implement appropriate control measures that maintain natural ecological balance and prevent outbreaks exceeding normal background levels.

#### **Objective 1.3 – Use a Multi-Resource Planning Approach**

Integrate Forest health treatments with considerations for wildlife habitat, soils, water, visual resources, and recreation.

---

### **GOAL 2 – PROVIDE FOR APPROPRIATE WILDFIRE PROTECTION IN A FIRE-ADAPTED ECOSYSTEM**

The owners recognize that wildfire is a natural component of this landscape and aims to reduce hazard levels while maintaining ecological integrity.

#### **Objective 2.1 – Reduce Hazardous Fuels While Preserving Natural Character**

Maintain the property in a natural condition while reducing ladder fuels, dead/down material, and overly dense stands that elevate wildfire risk.

#### **Objective 2.2 – Maintain and Improve Defensible Space**

Establish and sustain defensible space around the cabin and associated improvements, following state and national guidelines to enhance structure survivability during wildfire events.

#### **Objective 2.3 – Apply Firewise Principles**

Utilize Firewise USA recommendations and best practices in vegetation management, access, building material considerations, and ongoing maintenance to better withstand wildfire threats.

---

### **GOAL 3 – ENHANCE WILDLIFE HABITAT FOR KEY INDICATOR SPECIES**

Management activities will support habitat structures and conditions beneficial to wildlife species representative of the local ecosystem.

#### **Objective 3.1 – Use Slash and Thinning Residue to Improve Ground Layer Vegetation**

Where feasible, redistribute slash or chipped material to promote herbaceous and grass cover, enhancing forage opportunities for grazers and browsers.

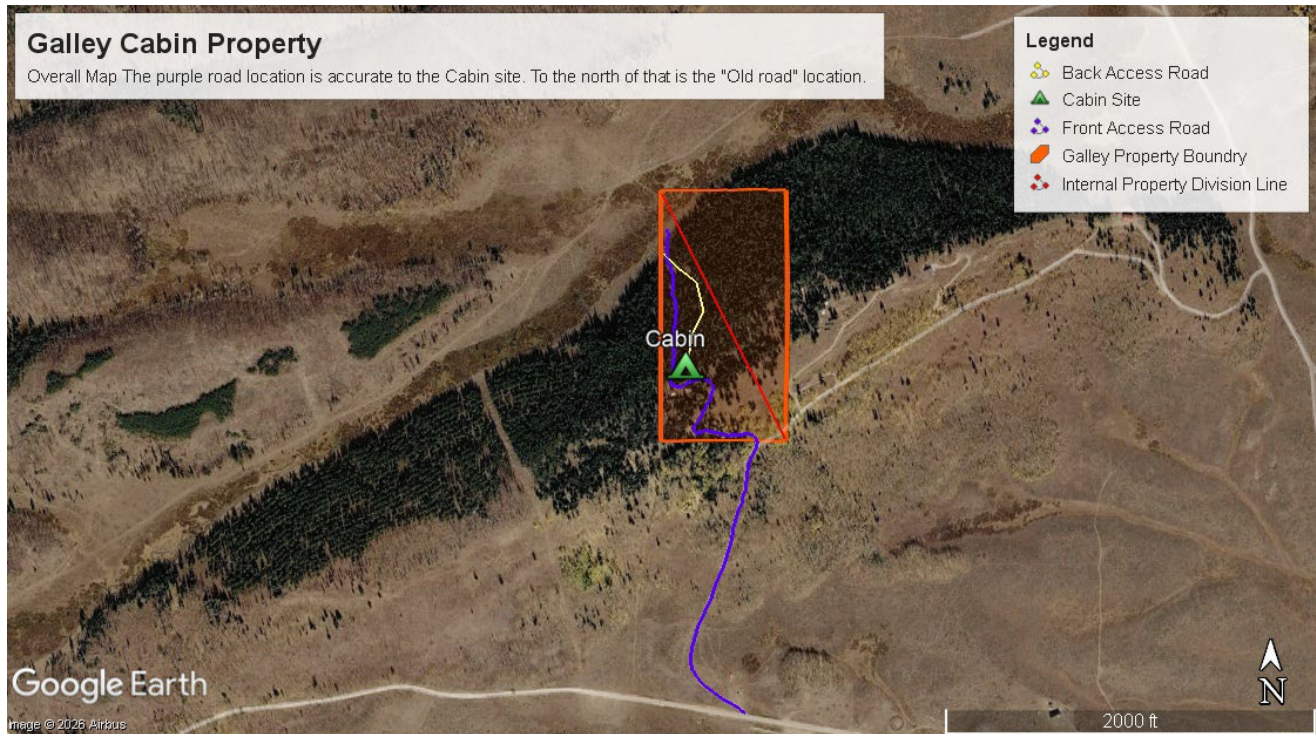
#### **Objective 3.2 – Evaluate Opportunities to Improve Water Availability**

In alignment with broader landscape objectives, assess options to contribute to the regional

goal of providing two reliable water sources per section. Identify whether this property can reasonably support additional water availability without creating attractants for problem wildlife.

**Objective 3.3 – Implement Selective Habitat Enhancements**

Consider habitat improvements—such as small openings, browse enhancement, or downed woody material placement—that benefit desirable wildlife species while avoiding practices that might draw in species likely to cause conflict or safety concerns.



## Section II. Resource Descriptions

### General Description

The terrain on the property is generally mountainous with slopes averaging between 10% to 20%. (Measured on a map with a few examples) Lodgepole pine (*Pinus contorta*), Douglass Fir (*Pseudotsuga menziesii*). Most of the property is considered a “mixed conifer” forest.

### Fish and Wildlife Habitat with Key Species

#### Characteristic Shrub Species in Wyoming Lodgepole Pine Forests (Sources noted)

In Wyoming’s Rocky Mountain lodgepole pine forests, the shrub layer is often sparse but can be conspicuous, especially in early successional stands following fire.

Common shrub species include:

- ***Arctostaphylos uva-ursi*** – Bearberry, a low, evergreen shrub with white flowers and red berries, common in moist, well-drained sites [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Ceanothus velutinus*** – Velvetleaf ceanothus, a flowering shrub with purple blooms, often found in open, sunny understories [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Mahonia repens*** – Oregon grape, a low, evergreen shrub with yellow flowers and dark berries [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Spiraea betulifolia*** – Red-osier dogwood, a deciduous shrub with red stems and white flowers [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Spiraea douglasii*** – Douglas dogwood, similar to red-osier but with green stems [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Shepherdia canadensis*** – Canada balsam, a deciduous shrub with white flowers and red berries [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Vaccinium spp.*** – Huckleberry species (e.g., *V. cespitosum*, *V. scoparium*, *V. membranaceum*), important for wildlife and forbs [research.fs.usda.gov](https://www.research.fs.usda.gov).
- ***Symphoricarpos oreophilus*** – Mountain snowberry, a low, deciduous shrub with white flowers and red berries [research.fs.usda.gov](https://www.research.fs.usda.gov).

### Lodgepole pine

Lodgepole pines are medium-sized trees, growing to heights of 40-80 feet (12-24 meters), though they can occasionally reach up to 100 feet (30 meters). They have a slender, straight trunk with branches that are often twisted or contorted, which is reflected in its scientific name *contorta*.

Lodgepole pine cones are Serotinous in nature. **Serotinous cones remain closed and sealed with a resin until they are exposed to high temperatures, like those from a forest fire.** This adaptation ensures that the seeds are released en masse after a fire, when competition for sunlight and nutrients is reduced, and the soil is fertile with ash.



- ***Juniperus communis*** – Common juniper, a hardy evergreen shrub or small tree [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Artemisia tridentata vaseyana*** – Wyoming big sagebrush, a dominant low shrub in drier areas [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Ribes spp.*** – Gooseberry species, with white or red berries [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Sambucus cerulea*** – Blue elderberry, a deciduous shrub with white flowers and blue-black berries [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Pachistima myrsinites*** – Rabbitbush, a low, evergreen shrub with yellow flowers [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Salix scouleriama*** – Scouler’s willow, a deciduous shrub or small tree in wetter sites [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Prunus virginiana*** – Wild serviceberry, a deciduous shrub with white flowers and red berries [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Purshia tridentata*** – Rabbitbush, a low, evergreen shrub with yellow flowers [research.fs.usda.gov](https://research.fs.usda.gov).
- ***Rhododendron albiflorum*** – Alpine rhododendron, in northern occurrences [NatureServe Explorer](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.722853/Rocky_Mountain_Lodgepole_Pine_Forest)  
([https://explorer.natureserve.org/Taxon/ELEMENT\\_GLOBAL.2.722853/Rocky\\_Mountain\\_Lodgepole\\_Pine\\_Forest](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.722853/Rocky_Mountain_Lodgepole_Pine_Forest))
- ***Menziesia ferruginea*** – Redstem filaree, a low, evergreen shrub in northern areas [NatureServe Explorer](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.722853/Rocky_Mountain_Lodgepole_Pine_Forest).
- ***Linnaea borealis*** – Boreal pink, a deciduous shrub in northern occurrences [NatureServe Explorer](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.722853/Rocky_Mountain_Lodgepole_Pine_Forest).
- ***Rhododendron spp.*** – Rhododendrons, in northern occurrences [NatureServe Explorer](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.722853/Rocky_Mountain_Lodgepole_Pine_Forest).



***Artemisia tridentata vaseyana*** – Wyoming big sagebrush

These species reflect the subalpine, often fire-maintained conditions of Wyoming’s lodgepole pine forests, where moisture, soil type, and fire history shape the shrub composition. In drier, more open stands, big sagebrush and juniper dominate; in moister, fire-maintained stands, huckleberries, snowberry, and serviceberry are more common.

**Characteristic grass species found in this habitat type include:**

Common Name	Scientific Name
Blue Wildrye	<i>Elymus glauccus</i>
Wheeler’s Bluegrass	<i>Poa wheeleri</i>
Ross’ Sedge	<i>Carex rossii</i>
Geyer’s sedge	<i>Carex geeyeri</i>
Hood’s Sedge	<i>Carex hoodii</i>
Squirreltail	<i>Elymus elymoides</i>
Idaho fescue	<i>Festuca idahoensis</i>

The above species are indicative of healthy Lodgepole pine habitat. The quality of the habitat is also measured by the presence of indicator species. These are the wildlife species whose presence is indicative of a healthy habitat.

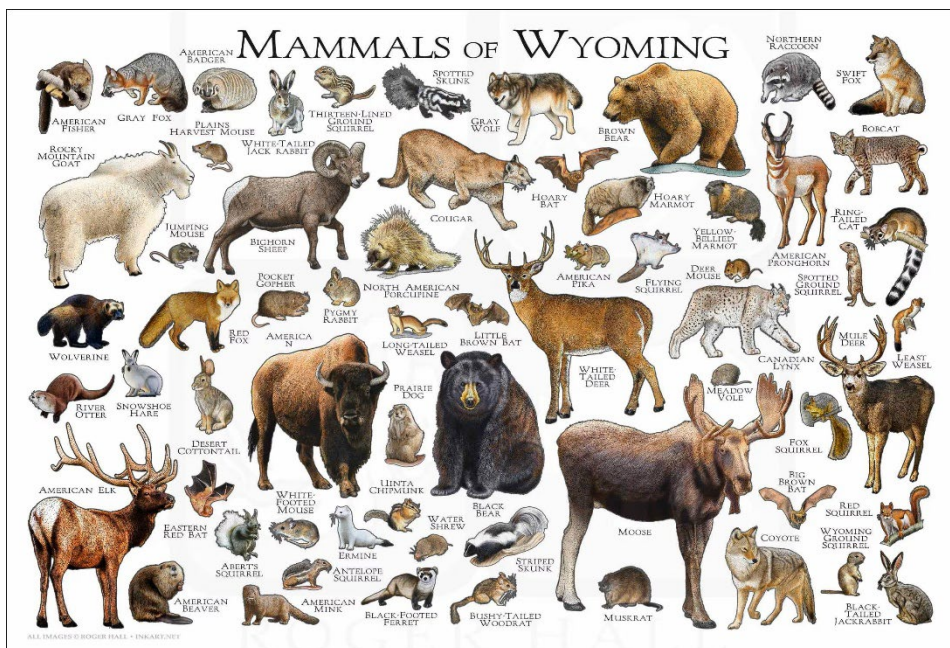
**Some of the indicator animal species for this habitat type are as follows: (Sources cited)**

**Key Animal Species**

There are at least **18 large mammals** and **103 small mammal species** known to occur in Wyoming.



**Red squirrel (*Tamiasciurus hudsonicus*)** – A key predator in lodgepole pine forests, especially in areas where it is present. It preys on bird nests, influencing breeding bird abundance and community structure.



**Nocturnal rodents** – Studies in burned lodgepole pine forests show high seed removal rates by rodents, indicating significant granivory. Species such as *Peromyscus* spp. (deer mice) and *Microtus* spp. (voles) are common foragers in these habitats.

## Large and medium sized mammals

- Grizzly bear
- Black bear (*Ursus americanus*)
- Bighorn sheep (*Ovis canadensis*)
- American bison (*Bison bison*)
- Bobcat (*Lynx rufus*)
- Coyote (*Canis latrans*)
- Elk (*Cervus canadensis*)
- Gray fox (*Urocyon cinereoargenteus*)
- Gray wolf (*Canis lupus*)
- Canada lynx (*Lynx canadensis*)
- Moose (*Alces alces*)
- Mountain goat (*Oreamnos americanus*)
- Mountain lion (*Puma concolor*)
- Mule deer (*Odocoileus hemionus*)
- Pronghorn (*Antilocapra americana*)
- Red fox (*Vulpes vulpes*)
- Swift fox (*Vulpes velox*)
- White-tailed deer (*Odocoileus virginianus*)



In 1985, the American bison was declared the state mammal of Wyoming.



Moose *Alces alces*

## Key Bird Species

- **Canopy and understory nesting birds** – In ranges without red squirrels, species in these guilds are more abundant, suggesting reduced nest predation pressure
- **Cavity and ground nesters** – Less affected by red squirrel predation, so their abundance is similar across squirrel-present and squirrel-absent areas
- **Post-fire specialists** – After high-severity fires, species such as the **American goldfinch, lark bunting,** and various warblers may increase in abundance as early successional vegetation develops
- **Nongame birds** – Many nongame species benefit from habitat diversity in lodgepole pine stands, including species that require open canopy and scattered understory for foraging and nesting



Pronghorn (*Antilocapra americana*)

## Ecological Notes

- Lodgepole pine forests are often dominated by mature or over-mature trees with little understory, creating open conditions that favor canopy and ground-dwelling species
- Fire is a key ecological driver, resetting the forest and creating conditions for seed release and colonization by early successional species

- Management practices that maintain habitat heterogeneity (e.g., patchy canopy, understory diversity) can enhance bird species richness, diversity, and abundance

In summary, Wyoming’s lodgepole pine forests host a mix of **red squirrels, rodents, bears, and a variety of birds** adapted to open canopies and post-fire conditions, with red squirrels playing a major role in shaping breeding bird communities.

**Overview of Threatened and Endangered Species – From BLM data**

Wyoming has a diverse range of wildlife, currently, there are 24 species in Wyoming that are identified as **Candidate, Proposed, Threatened or Endangered**. Nine of these occurs only downstream from Wyoming and are conserved through partnerships that limit water depletions from the Colorado and Platte River drainages within the State. Two species are currently candidates for listing (whitebark pine and Fremont County rockcress) which do not currently receive protection under the Endangered Species Act (ESA), and finally one species is proposed for listing (wolverine). All of the remaining 12 species are a primary focus of



Turkey Vulture  
(*Cathartes aura*)

BLM’s T&E species active conservation management and recovery efforts in Wyoming. These species include black-footed ferrets, Canada lynx, gray wolf, grizzly bear, yellow-billed cuckoo, Kendall warm springs dace, Preble’s meadow jumping mouse, Northern long-eared bat, blowout penstemon, Colorado butterfly plant, desert yellowhead, and Ute ladies’-tresses.

Species	Scientific Name	Type
Black-footed Ferret	<i>Mustela nigripes</i>	<b>Endangered</b>
Kendall warm springs dace	<i>Rhinichthys osculus thermalis</i>	<b>Endangered</b>
Penstemon Haydenii	<i>Blow-out Penstemon</i>	<b>Endangered</b>
Wyoming Toad	<i>Bufo baxteri</i>	<b>Endangered</b>
Bald eagle	<i>Haliaeetus leucocephalus</i>	<b>Threatened</b>
Canada lynx	<i>Lynx canadensis</i>	<b>Threatened</b>
Gray Wolf	<i>Canis lupus</i>	<b>Threatened</b>
Grizzly bear	<i>Ursus arctos = U.a. horribilis</i>	<b>Threatened **</b>
Preble’s Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	<b>Threatened</b>
Ute ladies’-tresses	<i>Spiranthes diluvialis</i>	<b>Threatened</b>
Desert Yellowhead	<i>Yermo xanthocephalus</i>	<b>Threatened</b>
Preble’s Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	<b>Designated Critical Habitat</b>

Desert Yellowhead	<i>Yermo xanthocephalus</i>	Designated Critical Habitat
Bonytail	<i>Gila elegans</i>	Colorado River Species
Pikeminnow	<i>Ptychocheilus lucius</i>	Colorado River Species
Humpback Chub	<i>Gila cypha</i>	Colorado River Species

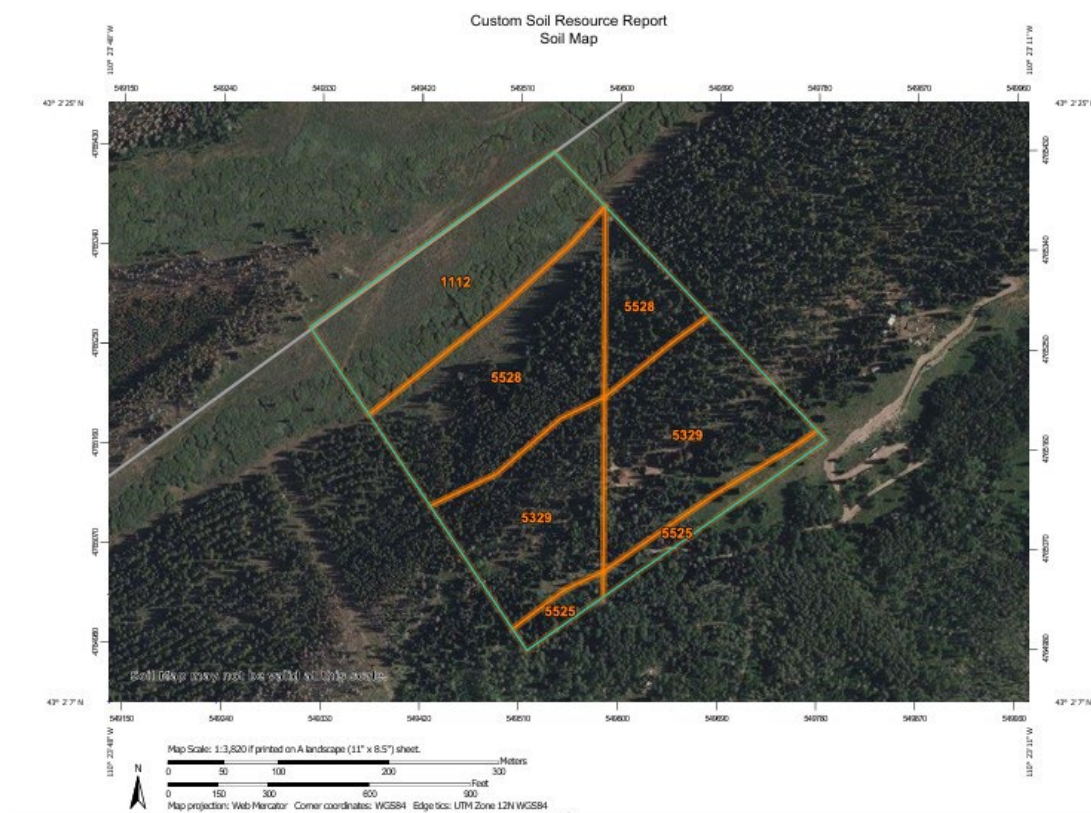
**\*\*Only on any unit of National Park or Wildlife Refuge Lands**

**If the proposed action will lead to water depletion (consumption) in the Colorado or the Platte River systems, impacts to the following species and/or its critical habitat should be considered.**

Razorback Sucker (*Xyrauchen texanus*) –endangered Critical Habitat for the Razorback Sucker - designated PLATTE RIVER SPECIES Eskimo Curlew (*Numenius borealis*)-endangered Interior Least Tern (*Sterna antillarum*) -endangered Pallid Sturgeon (*Scaphirhynchus albus*) -endangered Piping Plover (*Charadrius melodus*)-threatened Critical Habitat for the Piping Plover -designated Western Prairie Fringed Orchid (*Platanthera praeclara*)-threatened Whooping Crane (*Grus Americana*) – endangered Critical Habitat for the Whooping Crane -designated Bald Eagle (*Haliaeetus leucocephalus*)-threatened.

### Soil and water resources

A soil survey report was developed using the online tools provided by the Natural Resource Conservation Service (NRCS) website for this plan. The full soil report is included in Appendix B of this plan.



The soil map section includes a soil map for the project area (Area of Interest), a list of soil map units on the map with extent of each map unit, and cartographic symbols displayed on the map. Also presented on the

map are various metadata about data used to produce the map, and a description of each soil map unit.

There are 4 soil complex types found on the property’s “Area of Interest” (that includes some of the surrounding area). The table below lists these. There are 3 primary soil types located on the property with one adjacent soil being mentioned. These are further described below the table. One additional soil type located on adjacent properties are also noted in this section to inform the landowner what is around them. A detailed Soil set of information from the NRCS Web Soil Survey is attached in Appendix B:

**NOTE The property is in between 2 soil survey areas so 3 of the 4 soil on the map show up twice. (Compare the numeric soil designation for reference).**

### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1112	Furniss mucky peat, 0 to 3 percent slopes	5.9	22.3%
5329	Sighill-Southerim-Watsondraw complex, 3 to 15 percent slopes	4.6	17.3%
5525	Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes	0.5	2.0%
5528	Calsig-Kismetpeak complex, 10 to 35 percent slopes	6.7	25.1%
<b>Subtotals for Soil Survey Area</b>		<b>17.7</b>	<b>66.7%</b>
<b>Totals for Area of Interest</b>		<b>26.5</b>	<b>100.0%</b>

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5329	Sighill-Southerim-Watsondraw complex, 3 to 15 percent slopes	5.8	22.1%
5525	Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes	1.0	3.7%
5528	Calsig-Kismetpeak complex, 10 to 35 percent slopes	2.0	7.6%
<b>Subtotals for Soil Survey Area</b>		<b>8.8</b>	<b>33.3%</b>
<b>Totals for Area of Interest</b>		<b>26.5</b>	<b>100.0%</b>

**The soils found on the property are as follows:**

**Soil 1 – 1112 Located to the North of the property (Meadow)**

- **Furniss mucky peat, 0 to 3 percent slopes** Map unit composition is Furniss and similar soils: 80 percent *Minor components*: 20 percent. Soil profile characteristics are Oe - 0 to 3 inches; mucky peat; 3 to 8 inches: loam; 8 to 18 inches: clay loam; 18 to 26 inches: clay loam; 26 to 43 inches; sandy clay loam; 43 to 79 inches: very gravelly loamy sand These soils are “Very poorly drained” with the depth to restrictive feature more than 80 inches. The ecological site is Sub irrigated Foothills and Mountains West.

- **Soil 2 - 5329 Sighill-Southerim-Watsondraw complex, 3 to 15 percent slopes** Sighill and similar soils: 40 percent Southerim and similar soils; 25 percent Watsondraw and similar soils; 25 percent Minor components: 10 percent These soils are well drained and have a low run off rate. Soil profile characteristics are *0 to 2 inches*: moderately decomposed plant material *E - 2 to 14 inches*: sandy loam; *EB - 14 to 22 inches*: very cobbly sandy loam; *Bt1 - 22 to 28 inches*: gravelly loam; *Bt2 - 28 to 37 inches*: gravelly sandy clay loam; *2C - 37 to 79 inches*: sand The ecological site Upland Cold Woodland Group, *Other vegetative classification*: subalpine fir/Oregon grape.
- **Soil 3 – 5525 - 5525—Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes.** *Sledrunner and similar soils*: 35 percent *Youga and similar soils*: 25 percent *Groomer and similar soils*: 20 percent *Minor components*: 20 percent. These soils are well drained with a Depth to restrictive feature of more than 80 inches
- **Soil 4 – 5528—Calsig-Kismetpeak complex, 10 to 35 percent slopes** Unit Composition *Calsig and similar soils*: 55 percent *Kismetpeak and similar soils*: 35 percent *Minor components*: 10 percent. The soil is “*Somewhat excessively drained,*” with more than 80 inches to the water table. The soil profile characteristics are *A - 0 to 4 inches*: loam *Bw - 4 to 17 inches*: sandy loam *C - 17 to 28 inches*: sand *Cr - 28 to 79 inches*: bedrock.

When projects are designed on these soils, referencing the appendix of this document is recommended.

### **Recreation and Aesthetic Resources**

Opportunities for recreation are high for this property. Aesthetic qualities are also high. The highest elevation on the property is located in the property center, approximately 8180 ft in elevation.

Recreational uses include both active and passive recreational enjoyment. Some lightly used 2 track roads and trails are present. An example of a passive use is enjoying nature.

The aesthetic assets of the area are typical of the outdoor setting. Viewing of the landscape including wildlife watching, viewing outdoor plants and enjoying the distant views of the mountains are current aesthetic qualities for the property. Long-term aesthetic quality can be further enhanced through forest management.

Existing unofficial user trails a two-track roadway exists on the property and should be considered for conversion to trails and looked at to gauge repairing erosion potential.

## Grazing & Browse

There is evidence of wildlife browsing and livestock grazing present on the property. The livestock is not currently the landowners, as such, the table below shows the animal unit equivalents for a variety of livestock and domestic species. The following includes species likely and unlikely to be found in this area. This is intended to be used as a comparison.

The most relevant portions of this table are the animal unit equivalents for cows, bulls, cattle, elk, moose and mule deer. One thing to note is that while sheep only consume 20% of that of a cow, they tend to be more damaging to plant species. Sheep graze down into the root system of individual plants, to the point where plants may never recover at all. This has a negative impact on the forest.

Table: Commonly Used Animal Equivalents

Animal Class	Animal Unit Equivalent
Cow, 1,000 lb., Dry	0.92
Cow, 1,000 lb., with calf	1.00
Bull, mature	1.35
Cattle, 1 year old	0.60
Cattle, 2 years old	0.80
Horse, mature	1.25
Sheep, mature	0.20
Lamb, 1 year old	0.15
Goat, mature	0.15
Moose	0.83
Deer, white tailed, mature	0.15
Deer, mule, mature	0.20
Elk, mature	0.60
Antelope, mature	0.20
Bison, mature	1.00
Sheep, bighorn, mature	0.20

An **animal unit** is defined as the amount of forage a 1,000 lb. cow with a calf will graze in a single day. This is roughly 26 lbs. of dry weight. An **animal unit equivalent** is expressed as a ratio to the animal unit; this ratio expresses the percentage of forage an animal will eat when compared to a cow. For example, a mature elk has an animal unit equivalent of 0.6, so it will forage around 60% of the amount that a cow will.

Once the animal unit equivalent has been determined, the landowner needs to calculate the total forage they have available and stocking rate (amount of animals the land can support) of their land. Without getting too in depth, total forage is calculated by clipping all edible plant biomass in a plot, weighing it, and then extrapolating the data to lbs. per acre. The USDA Natural Resources Conservation Service (NRCS) may be able to assist landowners with this step. The stocking rate is calculated by dividing total forage by the amount eaten by the animal in question (generally 80% of the bodyweight of a 1,000 lb. cow). Further information can be found in the NRCS National Range and Pasture Handbook, located online at:

<http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/landuse/rangepasture/?cid=stelprdb1043084>

Excellent summaries of how to calculate total forage and stocking rates are also found online, courtesy of Utah State University.

Total Forage:

[http://extension.usu.edu/rangelands/files/uploads/General%20Grazing%20Management/Calculating%20available%20forage%20NR\\_RM\\_03.pdf](http://extension.usu.edu/rangelands/files/uploads/General%20Grazing%20Management/Calculating%20available%20forage%20NR_RM_03.pdf)

## AUE Species Comparison



1,000lb. Cow + Calf  
= 1 AUE



One Mature Bison Bull  
= 1.5 AUE



One Mature Elk  
= 0.6 AUE



One Mature Horse  
= 1.25 AUE



1,000lb. Cow  
= 0.92



One Mature Sheep + Lamb  
= 0.2 AUE



One Mature Goat  
= 0.15 AUE



White-Tailed Jackrabbit  
= 0.02 AUE



One Prairie Dog  
= 0.004 AUE

**Animal Unit Equivalent (AUE)** expresses how much a given animal's forage consumption compares to the standard AU. It's calculated as a fraction or multiple of 1 AU, based on the animal's body weight and nutritional demands.

\*Based on a study by the Natural Resources Conservation Service (NRCS) and North Dakota State University (NDSU)

### Section III. Timber Inventory with Forest Resource Assessment

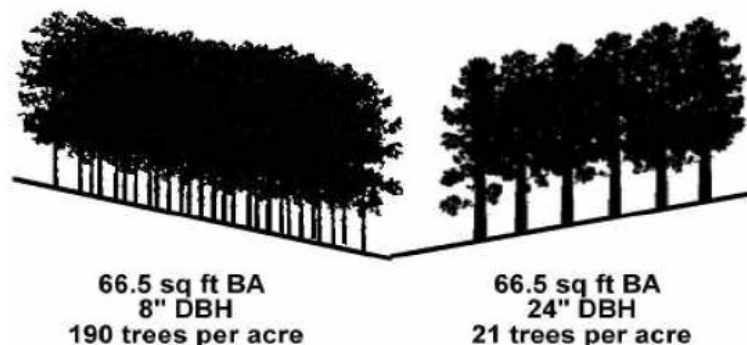
A property roads and boundary location with timber inventory and resource assessment was initially conducted on the property. The completed field report entitled “Reconnaissance and Cruise Report” includes property maps, timber data sampling and analysis, and management considerations for the Galley Property. The report can be found in Appendix E of this plan. In addition, a list of common forestry terms and definitions can be found in Appendix I.

#### Consolidated Property Map

Google Earth Pro along with Onx were used as primary mapping tools to consolidate map data for the property. The end product is a consolidated property map that shows mapped roads and boundary lines and corner monuments easily found on the property. The mapped boundary line and corner locations were extrapolated along with past licensed surveys and placed on the final Google Earth consolidated property map. The property line locations are approximate and should be used only for informational purposes.

#### Forest Resources and Inventory

A 10 BAF (Basal Area Factor) prism was used to collect variable plot information. Plot "In" trees were placed into 2-inch diameter classes and recorded by species. The forestry measurement of basal area is the amount of square feet (ft<sup>2</sup>) of a tree per acre. Basal area is derived from a diameter measurement; for woodland species, the diameter measurement is taken and recorded as "diameter at root collar". For “traditional” commercial species such as Ponderosa pine, the diameter measurement is taken and recorded as "diameter at breast height” or 4.5 ft from ground level. Typically, in woodland forests, a rule of thumb is to have 40- 60 ft<sup>2</sup> of basal area per acre. This allows trees on average to grow at their optimal rate.



*Note that it takes more smaller trees to equal the same Basal area as fewer larger trees.*

*Timber (forest tree species) is measured in square feet of Basal Area per acre.*

*Basal area (BA) is a measurement of the amount of tree area in square feet per acre that exist on the land. An acre consists of 43,560 square feet so a BA of 60 ft<sup>2</sup> (example) per acre of trees is what should exist.*

*Basal area measurement is used in a variety of ways when applying forestry concepts to a stand of trees. One way is to compare the stocking to an “ideal or target” stocking level so the forester can calculate how many trees to remove.*

*Different ideal stocking levels can be used to accomplish different forest goals such as the best stocking for fire safety or the optimal timber production stocking level, getting big trees in the shortest period of time while keeping an optimal number of trees in the stand.*

*A landowner should set management goals and use this information as a basis to make informed decisions about the management of the forest.*

The following data summary tables were calculated using an Excel Spreadsheet provided for use on NRCS and State Forestry projects:

Eighteen total forest Inventory plots on the property. These were somewhat spatially distributed throughout the property while retaining a random nature to the plot locations. The Map below shows the plot locations in red. From the data collected the two tables to the right summarize some of the key forestry components for the property’s timber stands.

**Table 1** shows the number of total trees recorded in the plots and distributed them into size classes. The Size classes are Saplings (SAPS); Pole Timber (PT); and Saw Timber (ST). Data from the plots 18 Saplings were recorded, 20 Pole size trees were recorded, and 38 Saw Timber Size trees were recorded. These totaled 76 total trees. (A variable plot cruise using a 10 Basal Area

	STAND SUMMARY			
	SAPS	PT	ST	TOTAL
# TALLIED	18	20	38	76
BAF	10	10	10	10
# POINTS	18	18	18	18
BA/AC	10.0	11.1	21.1	42.2

Table 1 Basal Area summary

Factor was used and this does use a measurement that tends to record larger trees on purpose to best calculate Basal Area). The Forest overall stand Basal Area averaged 42.2 Square feet per acre. This calculation will be addressed in the recommendations section for this plan. The above table does break down the Basal area by each size class of tree.

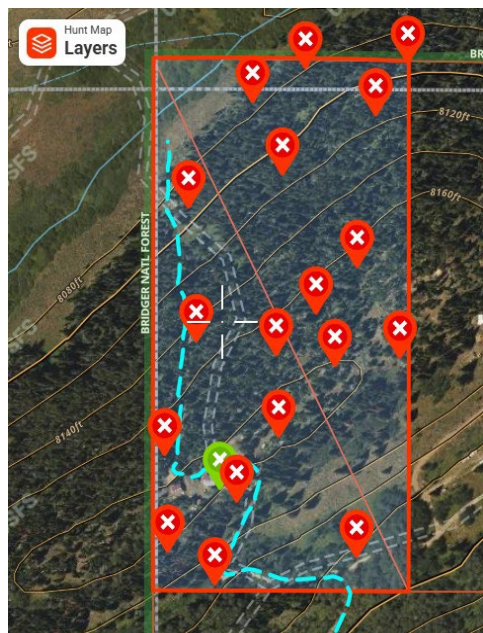
**Table 2** shows the Basal area per size class (again as in table 1) and the corresponding Trees per acre by size class. (Note the basal area is a key in the calculation of Trees Per acre). These data show that, again, the overall Basal Area is 42.2 square feet per acre and the corresponding Trees per acre TOTAL is approximately 268.7. (Keep in mind the distribution of the trees throughout the size classes as a function

	AVERAGE DIAMETER			
	SAPS	PT	ST	TOTAL
BA / AC	10.0	11.1	21.1	42.2
÷ TREES / AC	211.1	37.0	20.6	268.7
÷ .005454				
SQ RT				28.8
AVG DIA (QDM)				5.36728

Table 2 Average Diameter summary

of their basal area is used in determination of the overall Trees Per Acre (TPA). The final important calculation is the (QMD or QDM) Quadratic Mean Diameter of the stand tree diameter. This calculation gets an average tree size in a stand while eliminating the bias of outliers in the data. Large or small tree sizes will not play a large factor in determining the average. This makes the data very relevant and usable to best make decisions.

Appendix F has the table of the plot data from the field inventory.



Plot locations where forest data was collected.

**BASAL AREA PER TREE (SQ FT)**

DBH	BA	DBH	BA	DBH	BA
6"	.20	24"	3.10	42"	9.60
8"	.35	26"	3.70	44"	10.60
10"	.55	28"	4.30	46"	11.50
12"	.79	30"	4.90	48"	12.60
14"	1.10	32"	5.60	50"	13.60
16"	1.40	34"	6.30	52"	14.80
18"	1.80	36"	7.10	54"	15.90
20"	2.20	38"	7.90	56"	17.10
22"	2.60	40"	8.70	58"	18.30

This table shows the Diameter at Breast Height (DBH) or Diameter at Root Collar (DRC) sizes and the corresponding Basal Area.

## Section IV. Forest Protection

### Forest Insects

Forest insects are defined as forest pests that will in some way degrade the overall plant health of the forest. Primary insects discussed will be those that attack tree species.

**Bark Beetles:** This is a common problem in forests. Various species of bark beetle uses weakened trees to complete its life cycle, killing the tree as a byproduct. Trees weakened by environmental factors such as drought or intense competition with other trees are most susceptible to bark beetle attack. Bark beetles carve a gallery in the cambium in which “girdles” the tree making it impossible to feed itself. By the time signs of attack present themselves the tree is dead. Prevention is making the trees healthy and vigorous so that the trees would be able to defend themselves from attack. Trees do this by “pitching out” attackers where trees emit sap that overwhelms the attacking insects and expels them with pitch.



Ips Gallery on a beetle killed tree.



**Highlighted for this area is the Mountain Pine Beetle**

*Mountain pine beetle (Dendroctonus ponderosae Hopkins; MPB) is an aggressive bark beetle that attacks numerous Pinus spp. and causes extensive mortality in lodgepole pine (Pinus contorta Douglas ex Loudon; LPP) forests in the western United States and Canada.*

**Round headed and Flatheaded wood borer:** The round headed and flat headed wood borer attack recently cut or dead or dying trees. This process, while not necessarily a detriment to the forest, can serve to damage harvested trees left in the forest for too long. These borers are most prominent after fires. They may also spread into vigas located in structures in the area. The best prevention to sustaining large populations of these borers is to ensure dead wood is removed and wood piles are dried out by solarizing the piles and eliminating breeding habitat found in the moist area between the bark and wood of logs. Solarizing is the process of placing plastic over freshly cut firewood to kill wood borers so they will not spread to healthy trees.

**Forest Disease**

Forest diseases may be a problem that affects the health of plants in the forest. Diseases include parasitic plants, fungi, and bacteria. Forest diseases may impact forest systems by degrading productivity and health of the forest. Below are lists of the most likely forest diseases that will be found in this area with descriptions of potential effects to the system.

**Dwarf Mistletoe:** The most common forest disease found in forest systems in this area. Mistletoes are parasitic plants that may kill their hosts over time. Essential water and nutrients are diverted from the host plant to the mistletoe thus depriving the host of needed food that may end up killing the host. Dwarf mistletoes, found on conifers, are species specific that means that each species of dwarf mistletoe will only infest one species of conifer and cannot spread between species. Dwarf mistletoes, unlike true mistletoes, spread by shooting their berries up to 30 feet. Dwarf mistletoes may be controlled through silvicultural means by removing infected trees from the overstory.



*Dwarf Mistletoe Lodgepole pine*

**True Mistletoe:** True mistletoe attacks trees by “stealing” essential water and nutrients from the host trees. True mistletoe is spread by birds therefore there are no silvicultural controls. Pruning can be somewhat effective.

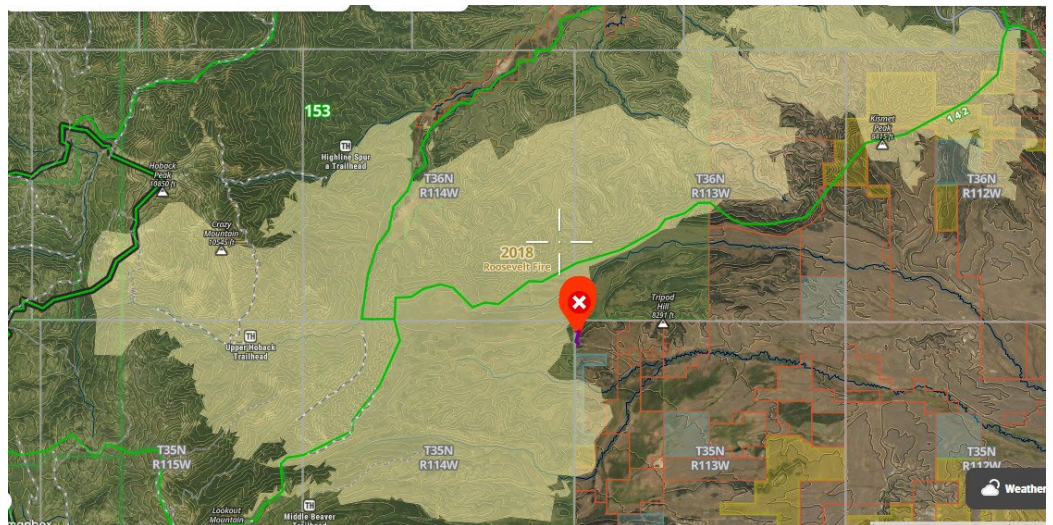


*True Mistletoe*

## Fire

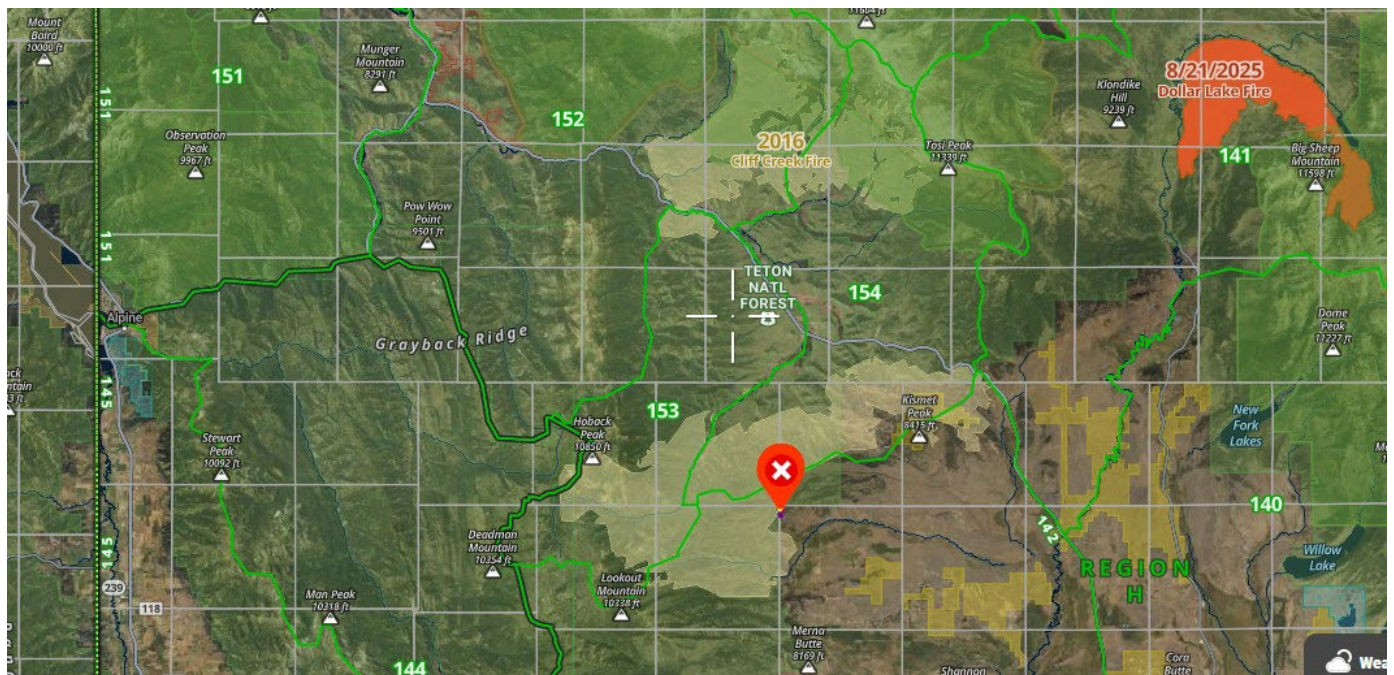
### Fire History

The most notable fire occurrence in the area is the 2018 Roosevelt Fire. The Roosevelt Fire was a significant wildfire in the Bridger-Teton National Forest, Wyoming, that began on September 15, 2018. It started near the head of the Hoback River and rapidly spread due to ideal fire



conditions. The fire destroyed 55 homes in the Hoback Ranches subdivision and burned over 61,500 acres. The U.S. Forest Service was ruled unable to be sued for its management of the fire, as it had the discretion to use it for resource benefits. The fire was determined to be human caused, resulting from a warming fire left unattended on the opening day of Wyoming's general hunting season.

Yearly there are hundreds of wildfires in the state but very few have landscape level ramifications. The management of forests to encourage low intensity ground fires with minimal rates of spread should be a goal for forest properties. This can be performed with fuels management (thinning).



A zoomed out view of fire history in the area.

### Fire hazard

Directly relates to the amount of fuel available to burn in a fire. The estimated fuel hazard rating on the property to be generally moderate to heavy. The moderate fuel locations is mostly around the improvements and the areas that tend to be heavy are away from the structures on locations such as on the steeper slopes of the property. Since the fire hazard directly relates to the amount of fuel available for consumption by a fire, fire hazard also addresses the arrangement of the fuel, i.e. the position of fuels in relation to other fuels. Heavy dead and down fuels is a characteristic of mixed conifer forests which are successional in nature. With the longer fire occurrence this fuel load tends to drive a “Stand Replacement” fire that re sets the forest to the initial successional stage. This is a key ecological process to consider when thinning the property.

### Fire risk

This risk addresses the potential ignition sources for the area. Ignitions may be both human and natural causes. Human ignitions may be from neighboring homes, debris or prescribed burning, and other unforeseen people cause accidents. Lightning is one of the leading causes of natural ignitions.

### Noxious Weeds

Invasive weeds pose a serious and increasing threat to Wyoming’s environment and economy. These weeds are tough competitors and can spread rapidly, creating large stands that can persist for many years in the environment and cause many negative impacts to our ecosystems. While these impacts are species-specific, weeds have been documented to cause the following: displacement of native plants and animals, increased fire danger, increased soil erosion, increased flood severity, increased soil salinity, and decreased water quality. In agricultural and rangeland settings, these weeds can cause severe economic impacts by decreasing crop yields and lowering available forage for range animals, resulting in a decrease in livestock health.

## Sublette County Wyoming Noxious Weed List

[Noxious Weeds | Sublette County Weed & Pest | Wyoming](https://www.sublettecountyweed.com/Noxious-Weeds)

(<https://www.sublettecountyweed.com/noxious-weeds>)

The following weeds are designated as noxious by the county Weed and Pest organization. Below is the list of Noxious weeds identified in the county. Specific treatment options are available if these are located on the property.

### Key species on the Sublette County noxious weed list :

- **Field Bindweed** (*Convolvulus arvensis* L.)
- **Hoary Cress** (*Cardaria draba* and *Cardaria pubescens*)
- **Houndstongue** (*Cynoglossum officinale* L.)
- **Spotted Knapweed** (*Centaurea maculosa* Lam.)
- **Perennial Pepperweed** (*Lepidium latifolium* L.)
- **Leafy Spurge** (*Euphorbia esula* L.)
- **Canada Thistle** (*Cirsium arvense* L.)
- **Scotch Thistle** (*Onopordum acanthium* L.)
- **Quackgrass** (*Agropyron repens* (L.) Beauv.)
- **Ventenata** (*Ventenata dubia* (Leers) Coss.)
- **Common Burdock** (*Arctium minus* (Hill) Bernh.)
- **Ox-eye Daisy** (*Chrysanthemum leucanthemum* L.)
- **Purple Loosestrife** (*Lythrum salicaria* L.)
- **Russian Knapweed** (*Centaurea repens* L.)
- **Salt Cedar** (*Tamarix* spp.)
- **Perennial Sowthistle** (*Sonchus arvensis* L.)
- **Musk Thistle** (*Carduus nutans* L.)
- **Yellow Toadflax** (*Linaria vulgaris* L.)
- **Dyer's Woad** (*Isatis tinctoria* L.)
- **Medusahead Rye** (*Taeniatherum caput-medusae* (L.) Nevski)
- **Skeletonleaf Bursage** (*Franseria discolor* Nutt.)
- **Black Henbane** (*Hyoscyamus niger* L.)
- **Diffuse Knapweed** (*Centaurea diffusa* Lam.)
- **Russian Olive** (*Elaeagnus angustifolia*)
- **Common St. Johnswort** (*Hypericum perforatum*)
- **Common Tansy** (*Tanacetum vulgare*)
- **Plumeless Thistle** (*Carduus acanthoides* L.)
- **Dalmatian Toadflax** (*Linaria dalmatica* (L.) Mill.)
- **Yellow Starthistle** (*Centaurea solstitialis* L.)
- **Hoary Alyssum** (*Artemisia dracunculus* subsp. *dracunculus*)
- **Austrian Fieldcress** (*Erysimum cheiri* L.)
- **Babysbreath** (*Armeria maritima* L.)
- **Common Teasel** (*Dipsacus fullonum* L.)
- **Scentless Chamomile** (*Anthemis cotula* L.)

- **Western Water Hemlock** (*Cicuta maculata* L.)
- **Bull Thistle** (*Cirsium vulgare* L.)
- **Dame's Rocket** (*Hesperis matronalis* L.)
- **Cheatgrass** (*Bromus tectorum* L.) – newly added to the state list in 2024 [SVI-NEWS](#)
- **Field Scabiosa** (*Scabiosa columbaria* L.)
- **Sulfur Cinquefoil** (*Potentilla recta* L.)
- **Bulbous Bluegrass** (*Pseudoroegneria spicata* var. *bulbosa*)

## Heritage Resources

No known occurrences of historical sites were noted on the property during the field inventory on the property. If any artifacts (historic or prehistoric) such as several old can scatters, are found during management (thinning) activities, the immediate area in and around the site shall be protected by identifying on the ground with flagging and then protected through avoidance.

A cultural site is defined as a historic (50 years or older) prehistoric (older than recorded history). Any sites found on the property should be regarded with care and all caution should be taken to avoid destruction of the site. Contact the Wyoming State historic Preservation Office (SHiPO) <https://wyoshpo.wyo.gov/index.php> or your local forester for advice on how to proceed with projects in any known or suspected location of a site.

Appropriate measures must be taken to avoid disturbing any sites during management activities, especially where federal dollars are spent.

## Section V. Forest Management Recommendations

**The three primary landowner Goals and corresponding Objectives are listed below with recommendations addressing these using information from the plan.**

### Goals and Objectives

#### Goal 1 – Maximize the Overall Forest Health of the Property

The owners seek to maintain a resilient, vigorous forest capable of withstanding natural disturbances, supporting diverse age classes, and sustaining long-term ecological function.

#### Objective 1.1 – Implement Forest Thinning and Stand Treatments

Conduct thinning and related silvicultural treatments to achieve an effective and sustainable basal area appropriate for the site. Treatments will reduce overcrowding, improve vigor, and support regeneration where necessary.

The stands on the property are considered ideally stocked. It is recommended that tree densities average 60 square feet of basal area per acre, with individual areas ranging from 40-80 square feet per acre. This stocking rate provides an optimal rate of growth for Lodgepole pine and Douglass fir stands. This is a forest with varying species but applying this stocking rate will achieve most of the goals for forest productivity. This rate will keep the greatest number of trees on the ground while also maximizing each tree's rate of growth.

Within the lodgepole pine / Douglass Fir, the best trees should be retained but also allow for a mixture of age and size classes so there will not be an age or size class gap created. Clumpy tree spacing can be used as a strategy to best make

## Ecological Restoration Principals to Consider

1. Reduce the threat of crown fire (key). Initial treatments should be substantial enough to reduce the threat of stand replacement fires.
2. Prioritize and strategically target treatment areas (key). Priorities should be based on risk of crown fire.
3. Develop site-specific reference conditions. Use historical ecological data to help prioritize treatment priorities.
4. Implement multiple conservation interventions. Multiple conservative restoration treatments are more desirable than using heavy handed treatments that can be more disruptive than helpful.
5. Utilize existing forest structure. Restoration treatments should build on existing stand structure such as large trees or groups of trees that have interlocking crowns.
6. Retain trees of significant size or age. Pre Euro-American settlement trees are becoming rare and more importantly, difficult to replace. Their value due to size and structure complexity is critical to wildlife habitat.
7. Consider demographic processes. Studies show that restoration efforts should consider natural tree regeneration and mortality through the life of a given stand to establish ecosystem resiliency due to climate change. Integrate process and structure. Natural disturbances such as fire and insect outbreaks are irreplaceable shapers of the forest. Ecological restoration treatments should have a commitment to the restoration of episodic surface fires. Without this commitment, forest treatments cannot be considered "ecological".
8. Control and avoid using exotic species. Seeding with exotic grasses, forbs and shrubs should be prohibited. Once established, exotic species become difficult to impossible to remove.
9. Assess cumulative efforts. Cumulative impacts from restoration treatments should be considered. Craig Allen et al. 2002 doesn't specifically say to what level but I would recommend consideration to the watershed or large drainage level depending on frequency, size and severity of treatments.
10. Protect from overgrazing. Grass, forbs and shrub understories are essential to plant and animal diversity and soil stability.

### Fire Adapted Ecosystem

#### Key Fire Adaptations

- **Serotinous cones:** Many lodgepole pines produce cones sealed with resin that melts at around 120°F (49°C), releasing seeds only when exposed to fire heat [oggardenonline.com](http://oggardenonline.com).
- **Seed germination conditions:** These seeds germinate best in open, sunlit areas with minimal competition, conditions created by stand-replacing fires [National Park Service](http://National Park Service).
- **Pioneer species:** Lodgepole pines are among the first to colonize burned areas, taking advantage of the abundant sunlight and reduced Competition [oggardenonline.com](http://oggardenonline.com).
- **Fuel load:** Dense stands maintain high combustible loads, supporting the ~200-year regeneration cycle [oggardenonline.com](http://oggardenonline.com).

the forest look more natural and clumps of trees also serve to provide better wildlife opportunities. Openings created within the forest are also of benefit to wildlife.

Forest products are almost always a byproduct of forest management for other resource objectives. The above-mentioned activities should be adequate to provide some level of sustained firewood production. Additional forest products such as poles and latillas would also be possible benefit from the forest management activities.

The stocking does NOT reflect the excessive dead and down material. This should be a major consideration while thinning the areas.

#### Objective 1.2 – Monitor and Manage Insects and Disease

Regularly evaluate forest conditions to identify insect or disease activity. Where issues are detected, implement appropriate control measures that maintain natural ecological balance and

prevent outbreaks exceeding normal background levels.

Forest insects and diseases are ever present in the environment, it is possible, through active management to limit the negative effects of them. Thinning serves to perform this function. With a disease such as Dwarf Mistletoe the style of thinning comes into play. A “thin from above” system is recommended to reduce the presence of the disease while ensuring the rate of spread is not increased. Dwarf mistletoe spreads by shooting out “seeds” usually in the fall months to try to land on neighboring trees. If a stand is thinned from below the seeds have a greater chance of spreading farther than normal. Also, the trees that have the mistletoe higher up in their canopy have seeds that potentially shoot farther. Dwarf mistletoe is generally species specific. The Dwarf mistletoe from a Douglass Fir will not affect lodgepole pine. A broom Rust in Douglass fir may be mistaken for mistletoe.

The recommendation is to remove trees infected with mistletoe that are infected in the upper 2/3 of the canopy and if feasible remove all trees infected to eliminate as best possible the presence. This recommendation is usually resisted by forest owners but understanding the tradeoffs a longer-term decision may become more acceptable.

#### Objective 1.3 – Use a Multi-Resource Planning Approach

Integrate Forest health treatments with considerations for wildlife habitat, soils, water, visual resources, and recreation.

With any forest management activities, it is important to understand and predict the affects that treatments will have. Thinning activities could stimulate growth in the understory. Thinning will also serve to optimize habitat assets that are not previously available to some species. Thinning may provide access to low flat branches to trees that could be used for roosting sites. Each action should be further considered for other impacts. This is a general recommendation that should be applied to all the other recommendations.

## Goal 2 – Provide for Appropriate Wildfire Protection in a Fire-Adapted Ecosystem

The owners recognize that wildfire is a natural component of this landscape and aims to reduce hazard levels while maintaining ecological integrity.

### Objective 2.1 – Reduce Hazardous Fuels While Preserving Natural Character

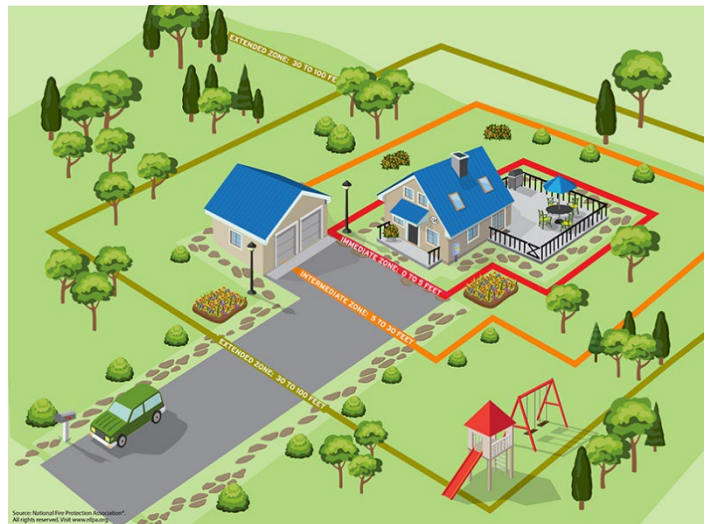
Maintain the property in a natural condition while reducing ladder fuels, dead/down material, and overly dense stands that elevate wildfire risk.

It is recommended that the concept of “Natural Range of Variability” is applied when providing defensible space. The definition of “Natural Range of Variability is:” The Historical fluctuations in environmental conditions” Two sample factors of variability are temperature and precipitation, that occur without significant human interference (Natural). These fare factors that are generally encountered over a long time period. The property is in a fire adapted ecosystem and it’s best when managed with this concept in mind.

### Objective 2.2 – Maintain and Improve Defensible Space

Establish and sustain defensible space around the cabin and associated improvements, following state and national guidelines to enhance structure survivability during wildfire events.

Various practices utilize “Zones” to convey a Firewise landscape. You will see from 2-4 “Zones” are recommended to be thinned in proximity to the home or other structures. In the illustration on this page, 2 zones are used to show that more should be thinned near the structures while less needs to be done as you get further away. Using a balanced approach to forestry keep the structures as “Vegetation free” as possible but if some special trees are left within the zone 1 area a mitigation measure should be utilized to offset the additional risk, such as a larger perimeter.

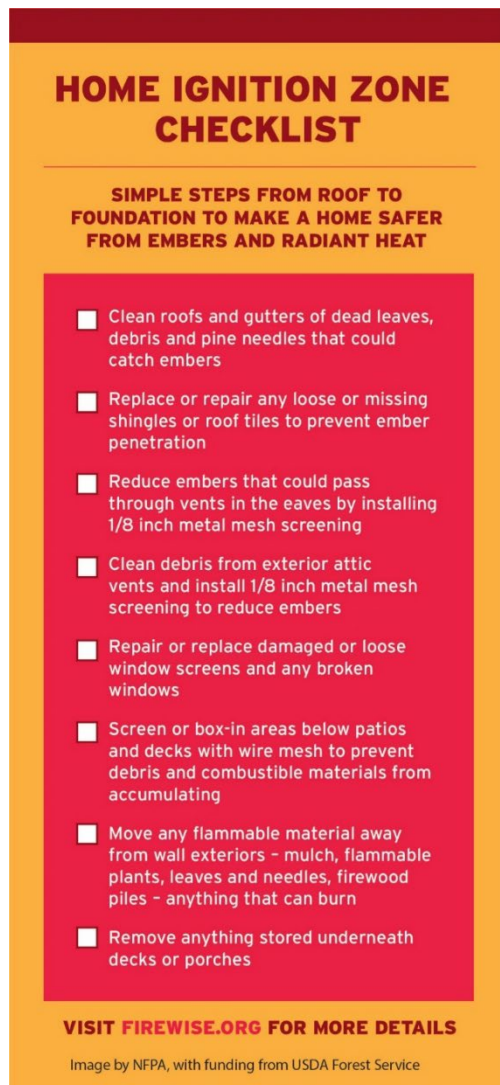


*The diagram above shows several Home Ignition Zones and graphic samples of how to treat these.*

The general idea for this is to use the existing landscape position to make fires drop and be able to be handled. Access to the property by firefighting equipment is also critical to this process. Most

local fire departments will come out and assess their access and provide feedback on if anything needs to be done to improve access for their equipment.

Noted that some work on this has been performed already so this should be maintained, and further assessments can be used to optimize this treatment.



### Objective 2.3 – Apply Firewise Principles

Utilize Firewise USA recommendations and best practices in vegetation management, access, building material considerations, and ongoing maintenance to better withstand wildfire threats.

Left is the Home Ignition Zone checklist from the Firewise Program. This primarily applies to structures within the threatened areas. A Firewise program is highly recommended for the structures on the property. This checklist is a reminder of steps that should be taken yearly (or more frequently) to ensure structures have the maximum chance of remaining intact in a wildfire.

Firewise recommends the 3 R's of landscape management. Removal, Reduction, and Replacement are three concepts for improving the fire hazards. Removal of excess plants (trees or shrubs) in the landscape. Reduction of excess portions of plants (tree branches or overgrown portions of plants or trees) should be considered. Replacement of flammable plants with less flammable plants around the home for aesthetic purposes should be considered.

### Goal 3 – Enhance Wildlife Habitat for Key Indicator Species

Management activities will support habitat structures and conditions beneficial to wildlife species representative of the local ecosystem. It is important to note that there have been past efforts in establishing animal food plots. These were aimed at providing better quality forage for browsing species.

### Objective 3.1 – Use Slash and Thinning Residue to Improve Ground Layer Vegetation

Where feasible, redistribute slash or chipped material to promote herbaceous and grass cover, enhancing forage opportunities for grazers and browsers.

The recommendation is to consider leaving Slash on site to create temporary microclimates that shelter understory vegetation. This practice is used and is very successful when managing for grass and forb ground cover. The tradeoff for using this practice is that the slash will create short term habitat (2-3 months) for bark beetle species that may build higher than normal populations. Performing this in the winter months will mitigate this risk. If surrounding trees are healthy with good soil moisture the beetle population has a reduced chance of being successful. The long-term tradeoff is excellent while the short-term risk of losing a few trees is possible.

Another potential tradeoff is the increased “ground fuel” remaining on site. Ground fuel is much more desirable than having standing fuel when it comes to fire hazards. The “arrangement” is such that and fire is less risky and much easier to control. Woody debris on the forest floor is part of the natural process, but it is also in conflict at times with fire hazard reduction.

### **Objective 3.2 – Evaluate Opportunities to Improve Water Availability**

In alignment with broader landscape objectives, assess options to contribute to the regional goal of providing two reliable water sources per section. Identify whether this property can reasonably support additional water availability without creating attractants for problem wildlife.

One of the targets for land management is to provide (or account for) 2 water sources per section (1 square mile or 640 acres). The water sources should also be “Available” to wildlife free from disturbance as best as possible. Stock Ponds and trick tanks are excellent augmentations to naturally occurring streams and ponds. The recommendation is to maintain or enhance the water source on the north portion of the property. Enhancement would reduce erosion, increase access or even create “Pooling” to better serve wildlife. Be sure to reference any local laws before performing these practices.

### **Objective 3.3 – Implement Selective Habitat Enhancements**

Consider habitat improvements, such as small openings, browse enhancement, or downed woody material placement, that benefit desirable wildlife species while avoiding practices that might draw in species likely to cause conflict or safety concerns.

The specific silvicultural practices chosen when thinning can have a great effect on the value of wildlife habitat in the area. Two practices are recommended for this on the property.

First, where feasible and desirable, retain snags (Large trees that are dead) to be used by cavity nesting species. Several cavity nesting bird species as well as some mammals use tree cavities for nesting habitat. The larger trees have a higher insulation value for these nests as there is more wood on the outside of the nests. A Recommended number of Snags per acre is 1-2. Snags conflict with high use areas by people as they are not as safe from falling branches or the tree itself over time. When deciding which trees to retain as snags consider the areas for potential use by people (for example sang retention should be avoided in picnic areas).

The next concept recommended here can be more elaborate in nature. The recommendation is to target the habitat requirements for a key indicator species (Sage grouse). There are very limited

opportunities to provide habitat as the property is mostly forested. If opportunities exist to provide or enhance this habitat it should be considered. Sublette County's intact habitat, which covers over 40% of the world's sage grouse population, makes it an essential area for monitoring these sensitive, indicator species. In Sublette County, Wyoming, indicator species serve as vital barometers for the health of its diverse ecosystems, ranging from high-alpine ranges to vast sagebrush seas. Key indicator species identified in the region include the **Greater Sage-grouse**, which signals the health of the sagebrush biome. The greater sage-grouse is North America's largest grouse, known for its spectacular spring mating dance on communal grounds called "leks," where males inflate yellow chest sacs and fan their tails to attract females. This ground-dwelling bird relies heavily on sagebrush for food and shelter, inhabiting the sagebrush steppe of the western U.S. and Canada, but its population is declining due to habitat loss from wildfire, development, and invasive species. *"In Wyoming, 92% of nests in Wyoming big sagebrush were in areas where vegetation was 10 to 20 in (25 to 51 cm) tall and cover did not exceed 50%"*

While not always strictly defined as "indicators," these species are vital for conservation planning due to their reliance on intact corridors.

- **Sublette Antelope (Pronghorn):** They follow one of the longest documented migration corridors in North America, signaling the connectivity of seasonal ranges.
- **Mule Deer and Elk:** Used to monitor the condition and vegetation response of retired grazing allotments in the **Wyoming Range**.

Maintain the pre-existing food plots (mentioned above) to ensure the area is still viable and to re-invigorate this area as needed. If additional planting is required to keep the plot in good condition, or to expand this improvement continue to maintain this practice.

## Recommended food plot species (Sources cited)

### Recommended Native Species

1. **Big Bluestem (Andropogon gerardii)** – A tallgrass native to the Great Plains, big bluestem is drought-tolerant, cold-hardy, and provides excellent forage for livestock and wildlife. It thrives in open, well-drained sites [wyndd.org](http://wyndd.org).
2. **Little Bluestem (Schizachyrium scoparium)** – A shorter, more drought-tolerant grass, little bluestem is well-suited to thin soils and high winds. It is also a good forage species [wyndd.org](http://wyndd.org).
3. **Sideoats Grama (Bouteloua curtipendula)** – A native bunchgrass that tolerates drought, heat, and poor soils. It is palatable to livestock and wildlife and is common in Wyoming's shortgrass and mixed-grass prairies [wyndd.org](http://wyndd.org).
4. **Buffalo Grass (Bouteloua dactyloides)** – A low-growing, drought-tolerant native grass that is highly adapted to Wyoming's climate. It is palatable and helps stabilize thin soils [wyndd.org](http://wyndd.org).
5. **Wildrye (Elymus spp.)** – A group of native cool-season grasses that are drought-tolerant and well-adapted to open, windy sites. They provide good forage and help prevent erosion [wyndd.org](http://wyndd.org).
6. **Amaranthus spp. (Amaranthus albus, A. retroflexus)** – Native amaranths are drought-tolerant, cold-hardy, and can be used as forage or cover crops in open areas [wyndd.org](http://wyndd.org).

## Additional recommendations:

### **Continue to provide recreational opportunities on the property. Enhance the aesthetic quality of the property.**

Perform forestry practices that will provide increased aesthetic beauty.

The recommendation is to perform treatments that also serve to enhance scenic beauty while accomplishing objectives. Generally thinning serves to allow more sunlight to reach the forest floor, providing increased opportunity for understory grasses and forbs to grow. If these understory species are not currently present, the above-mentioned slash used to form a microclimate would cause short-term loss of scenic beauty but provide for increased mid to long-term Scenic beauty.

The thinning method recommendation of achieving basal areas in the 50-70 range are ideal for promoting individual tree growth while also maximizing the number of trees on the ground and significantly lowering the risk of a fire staying on the ground and not getting into the crowns. One study cited needing a 70 + MPH wind event to get a fire to get into the crowns and sustain itself in a stand of trees 50 Square Feet of Basal area or less. The final element to lowering scenic beauty on a site is an excessive amount of saplings and pole size trees.

The American Forest Foundations (AFF) Tree Farm Program is active in Wyoming and can provide assistance and recognition to private forest owners. Tree Farm works to give people the tools they need to be effective stewards of America's forests. Privately owned woodlands are vital to our country's clean water and air, wildlife habitat, recreational activities, and producing the jobs, wood, and paper products we all need.

### [Wyoming Tree Farm Program](https://www.treefarmsystem.org/wyoming)

<https://www.treefarmsystem.org/wyoming>



**Property line locations are approximate and should be used for informational purposes only until their exact location can be confirmed through additional GPS corrections or other means of legal survey.**

## **APPROVAL SHEET**

### **FOREST STEWARDSHIP PLAN**

**Some cost share programs require the management plan to be approved. If it is the intention to use this sign the following.**

I have read the attached Forest Management Plan and find that the document will provide assistance in accomplishing the goals and objectives that I have for my property. It is my intention to implement the plan recommendations to the best of my ability, as time and circumstances permit.



---

Planner: Todd Haines, Certified Forester

5/1/2026

Date

---

Landowner

Date

---

Additional Approved By:

NRCS / District Forester

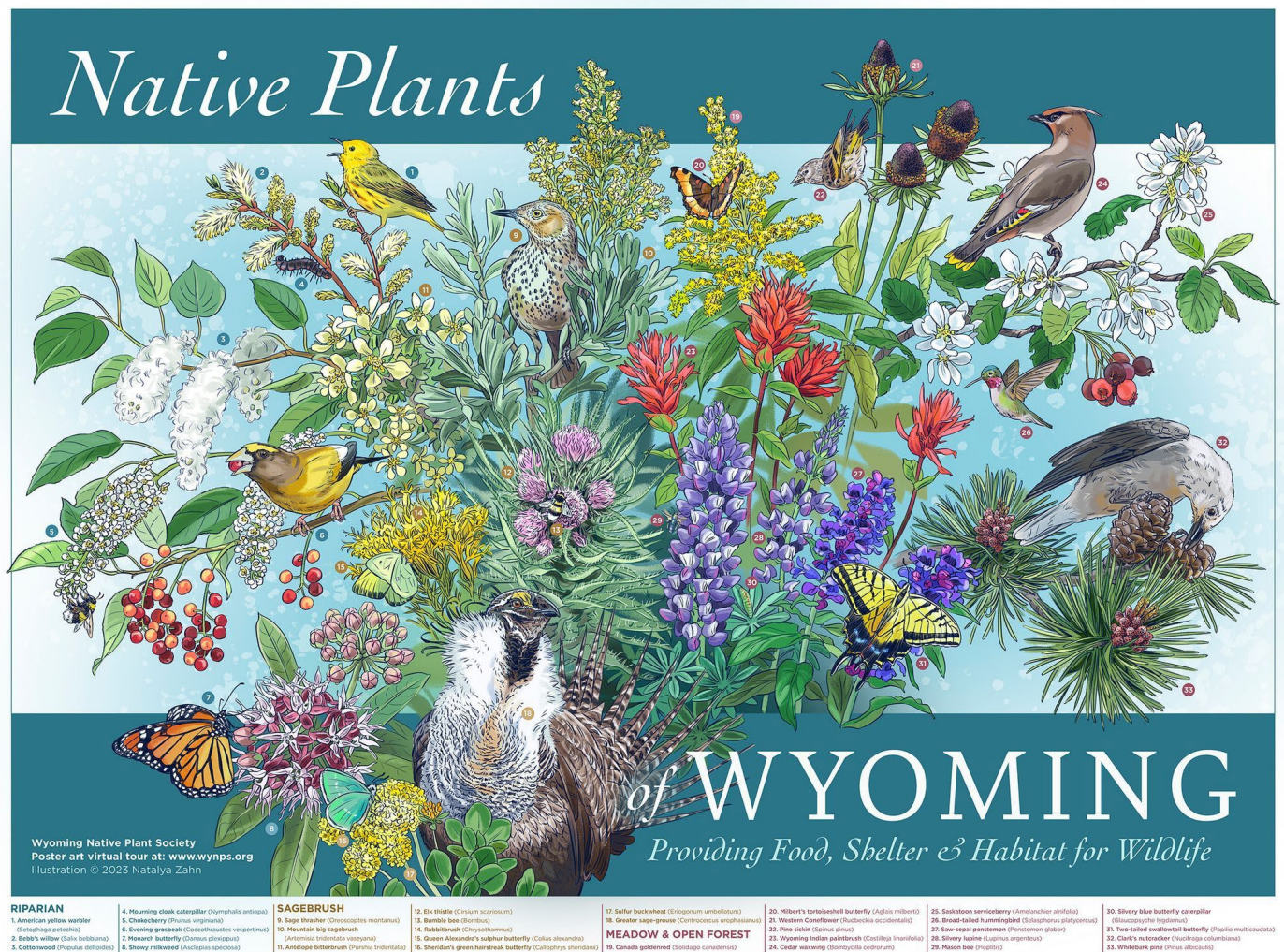
Date

## Appendix A: Rare Plants for Sublette County

Additional information on Rare plants in Sublette County can be accessed by browsing the following website.

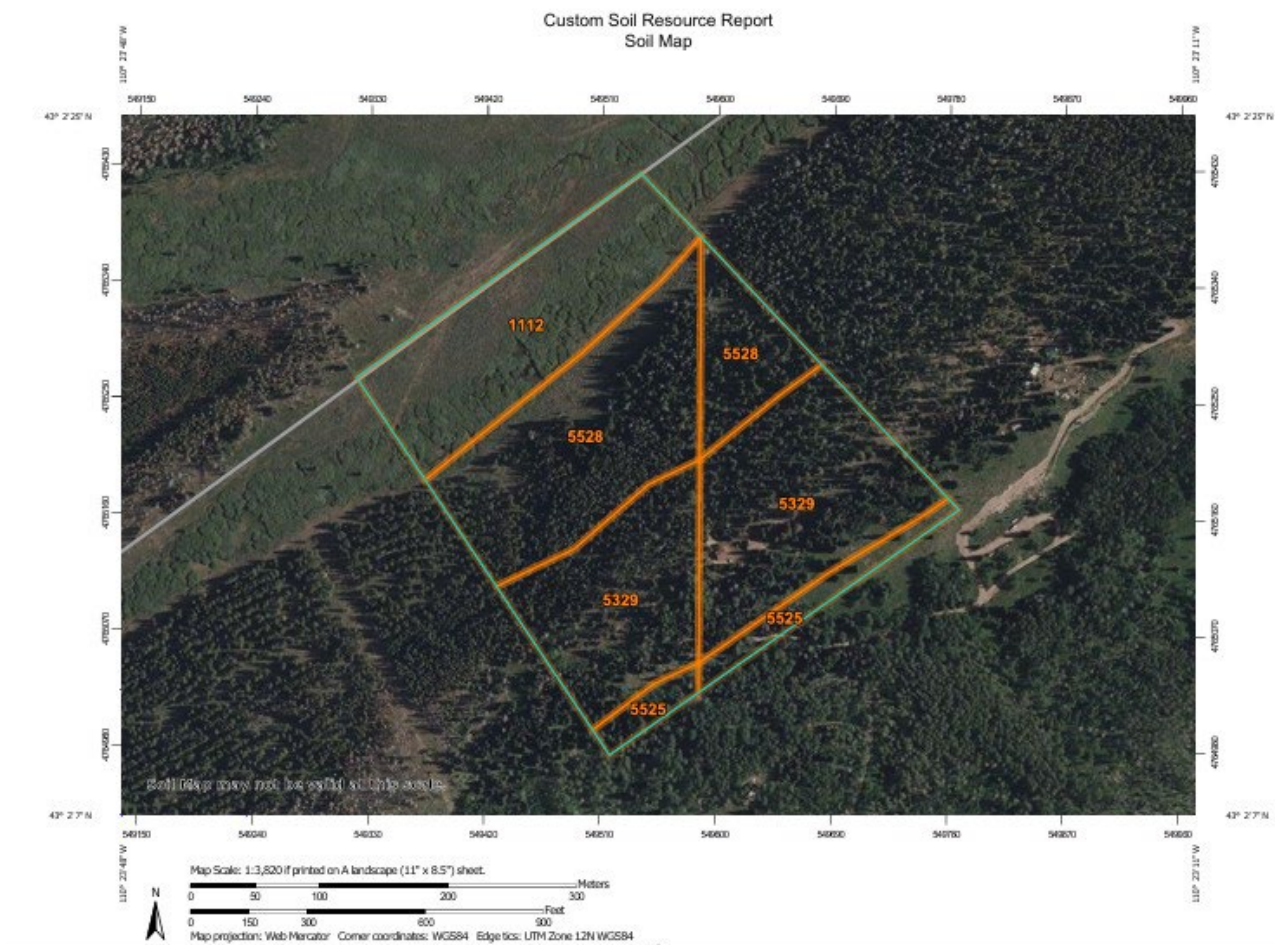
[Wyoming Native Plant Society](https://www.wynps.org/)

<https://www.wynps.org/chapters/>



## Appendix B: Soil Information

The following Soil survey information was prepared online through the Natural Resource Conservation Service Web Site. This is a custom survey for this property. It includes information on the surrounding properties.





United States  
Department of  
Agriculture

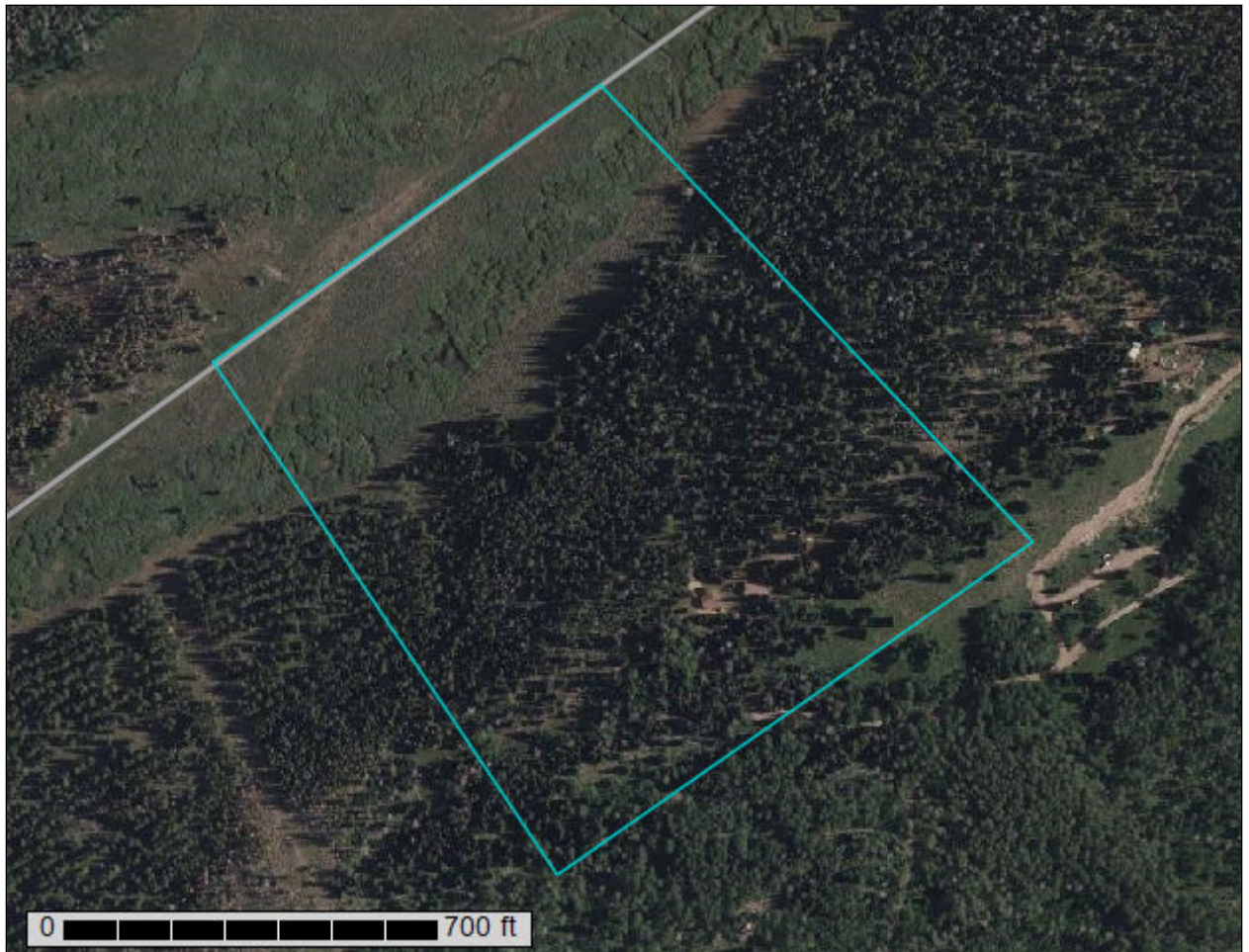
**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for Bridger National Forest, Wyoming, Western Part; and Sublette County Area, Wyoming

## Galley Soil Map (Including Surrounding Area)



# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

# Contents

---

<b>Preface</b> .....	2
<b>How Soil Surveys Are Made</b> .....	5
<b>Soil Map</b> .....	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	12
Map Unit Descriptions.....	12
Bridger National Forest, Wyoming, Western Part.....	15
1112—Furniss mucky peat, 0 to 3 percent slopes.....	15
5329—Sighill-Southerim-Watsondraw complex, 3 to 15 percent slopes.....	16
5525—Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes.....	19
5528—Calsig-Kismetpeak complex, 10 to 35 percent slopes.....	22
Sublette County Area, Wyoming.....	26
5329—Sighill-Southerim-Watsondraw complex, 3 to 15 percent slopes.....	26
5525—Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes.....	29
5528—Calsig-Kismetpeak complex, 10 to 35 percent slopes.....	32
<b>References</b> .....	35

# How Soil Surveys Are Made

---

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

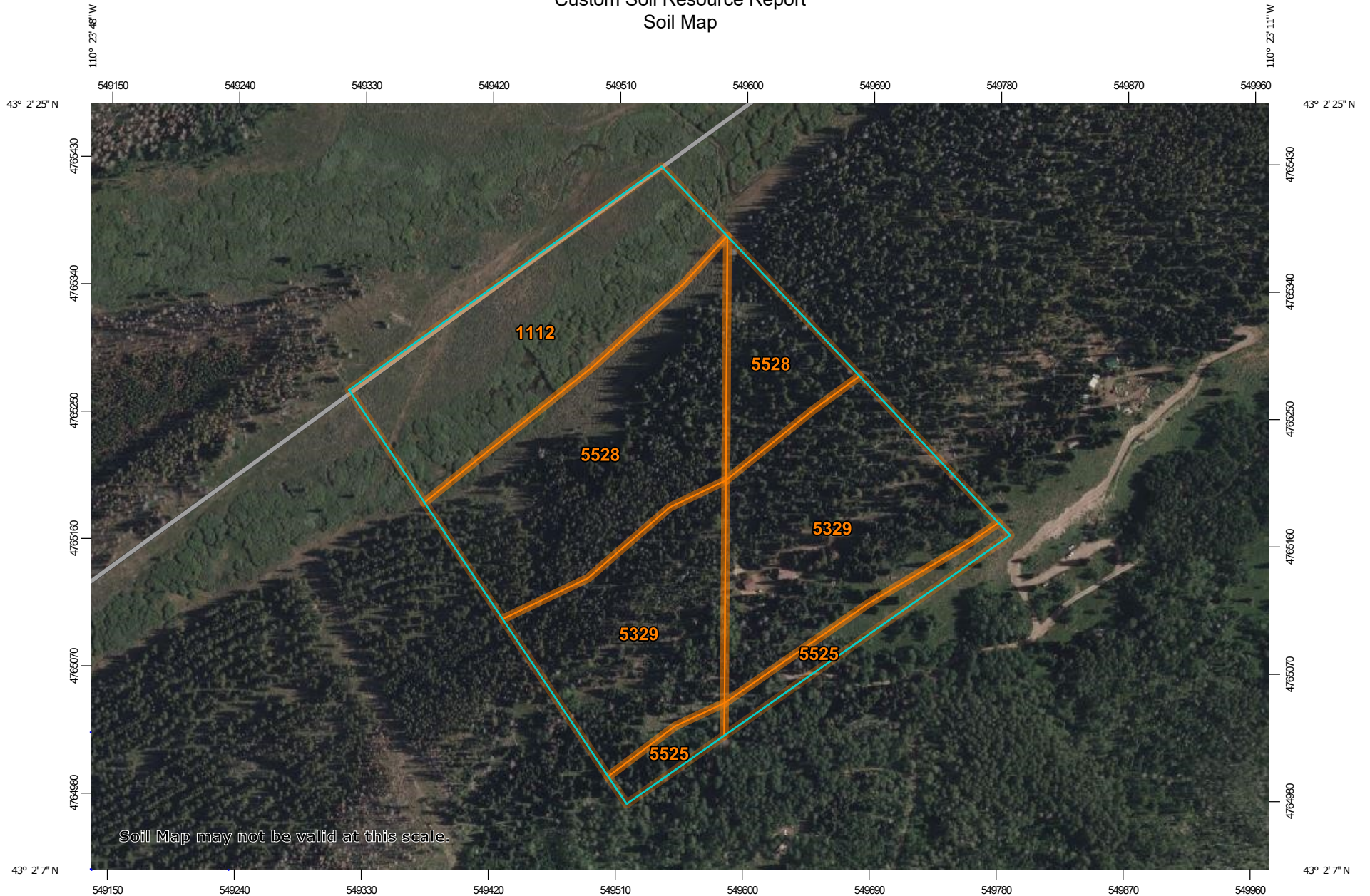
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

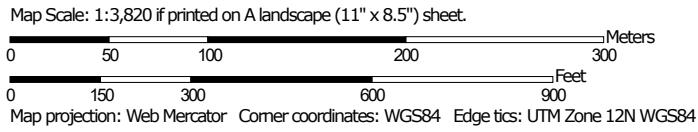
---

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map




Soil Map may not be valid at this scale.



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)




















**Soils**







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bridger National Forest, Wyoming, Western Part  
 Survey Area Data: Version 16, Sep 4, 2025

Soil Survey Area: Sublette County Area, Wyoming  
 Survey Area Data: Version 21, Sep 4, 2025

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

**MAP LEGEND**

**MAP INFORMATION**

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 16, 2021—Jun 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1112	Furniss mucky peat, 0 to 3 percent slopes	5.9	22.3%
5329	Sighill-Southrim-Watsondraw complex, 3 to 15 percent slopes	4.6	17.3%
5525	Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes	0.5	2.0%
5528	Calsig-Kismetpeak complex, 10 to 35 percent slopes	6.7	25.1%
<b>Subtotals for Soil Survey Area</b>		<b>17.7</b>	<b>66.7%</b>
<b>Totals for Area of Interest</b>		<b>26.5</b>	<b>100.0%</b>

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5329	Sighill-Southrim-Watsondraw complex, 3 to 15 percent slopes	5.8	22.1%
5525	Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes	1.0	3.7%
5528	Calsig-Kismetpeak complex, 10 to 35 percent slopes	2.0	7.6%
<b>Subtotals for Soil Survey Area</b>		<b>8.8</b>	<b>33.3%</b>
<b>Totals for Area of Interest</b>		<b>26.5</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

## Custom Soil Resource Report

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion

## Custom Soil Resource Report

of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Bridger National Forest, Wyoming, Western Part

### 1112—Furniss mucky peat, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2pcrz  
*Landscape:* Intermontane basins  
*Elevation:* 7,000 to 7,600 feet  
*Mean annual precipitation:* 15 to 19 inches  
*Mean annual air temperature:* 33 to 35 degrees F  
*Frost-free period:* 25 to 45 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Furniss and similar soils:* 80 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Furniss

##### Setting

*Landscape:* Intermontane basins  
*Landform:* Flood plains, Drainageways  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Alluvium derived from metamorphic and sedimentary rock

##### Typical profile

*Oe - 0 to 3 inches:* mucky peat  
*A - 3 to 8 inches:* loam  
*AB - 8 to 18 inches:* clay loam  
*Bg - 18 to 26 inches:* clay loam  
*BCkg - 26 to 43 inches:* sandy clay loam  
*Cg - 43 to 79 inches:* very gravelly loamy sand

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Very poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)  
*Depth to water table:* About 0 to 6 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 12 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water supply, 0 to 60 inches:* High (about 9.9 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 5w  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* R043BY274WY - Subirrigated Foothills and Mountains West

## Custom Soil Resource Report

*Hydric soil rating:* Yes

### Minor Components

#### **Cora taxadjunct**

*Percent of map unit:* 10 percent  
*Landscape:* Intermontane basins  
*Landform:* Flood plains, Drainageways  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Hydric soil rating:* Yes

#### **Typic cryohemists**

*Percent of map unit:* 8 percent  
*Landscape:* Intermontane basins  
*Landform:* Flood plains, Drainageways  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

#### **Water**

*Percent of map unit:* 2 percent

## 5329—Sighill-Southrim-Watsondraw complex, 3 to 15 percent slopes

### Map Unit Setting

*National map unit symbol:* 2pfc6  
*Landscape:* Foothills  
*Elevation:* 7,690 to 8,400 feet  
*Mean annual precipitation:* 25 to 30 inches  
*Mean annual air temperature:* 32 to 34 degrees F  
*Frost-free period:* 15 to 40 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Sighill and similar soils:* 40 percent  
*Southrim and similar soils:* 25 percent  
*Watsondraw and similar soils:* 25 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Sighill

#### **Setting**

*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear  
*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from sandstone

## Custom Soil Resource Report

### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*E - 2 to 14 inches:* sandy loam  
*EB - 14 to 22 inches:* very cobbly sandy loam  
*Bt1 - 22 to 28 inches:* gravelly loam  
*Bt2 - 28 to 37 inches:* gravelly sandy clay loam  
*2C - 37 to 79 inches:* sand

### Properties and qualities

*Slope:* 3 to 15 percent  
*Depth to restrictive feature:* 17 to 51 inches to strongly contrasting textural stratification  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.71 to 2.13 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Low (about 5.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6c  
*Land capability classification (nonirrigated):* 6c  
*Hydrologic Soil Group:* B  
*Ecological site:* F043BP709WY - Upland Cold Woodland Group  
*Other vegetative classification:* subalpine fir/heartleaf arnica (SC780)  
*Hydric soil rating:* No

### Description of Southrim

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear  
*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock

#### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*E - 2 to 11 inches:* loam  
*Bt1 - 11 to 16 inches:* gravelly clay loam  
*Bt2 - 16 to 37 inches:* clay  
*Bt3 - 37 to 79 inches:* clay

#### Properties and qualities

*Slope:* 3 to 15 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.07 to 0.21 in/hr)  
*Depth to water table:* About 36 to 72 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None

## Custom Soil Resource Report

*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* High (about 10.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6c  
*Land capability classification (nonirrigated):* 6c  
*Hydrologic Soil Group:* D  
*Ecological site:* F043BP709WY - Upland Cold Woodland Group  
*Other vegetative classification:* subalpine fir/pinegrass (SC750)  
*Hydric soil rating:* No

### Description of Watsondraw

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock

#### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*A - 2 to 3 inches:* gravelly sandy loam  
*E - 3 to 20 inches:* gravelly sandy loam  
*Bt1 - 20 to 37 inches:* very cobbly sandy clay loam  
*Bt2 - 37 to 54 inches:* gravelly sandy clay loam  
*BC - 54 to 79 inches:* gravelly sandy clay loam

#### Properties and qualities

*Slope:* 3 to 15 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Moderate (about 7.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6c  
*Land capability classification (nonirrigated):* 6c  
*Hydrologic Soil Group:* B  
*Ecological site:* F043BP709WY - Upland Cold Woodland Group  
*Other vegetative classification:* subalpine fir/Oregon grape (SC703)  
*Hydric soil rating:* No

### Minor Components

#### Mine

*Percent of map unit:* 5 percent  
*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Landform position (three-dimensional):* Interfluvial  
*Down-slope shape:* Linear

## Custom Soil Resource Report

*Across-slope shape:* Convex, linear  
*Hydric soil rating:* No

### **Animas**

*Percent of map unit:* 3 percent  
*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Down-slope shape:* Concave, convex  
*Across-slope shape:* Linear, concave  
*Hydric soil rating:* No

### **Mudbuz**

*Percent of map unit:* 2 percent  
*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex, linear  
*Hydric soil rating:* No

## **5525—Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2pf4w  
*Landscape:* Foothills  
*Elevation:* 7,380 to 8,200 feet  
*Mean annual precipitation:* 15 to 19 inches  
*Mean annual air temperature:* 33 to 35 degrees F  
*Frost-free period:* 25 to 45 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Sledrunner and similar soils:* 35 percent  
*Youga and similar soils:* 25 percent  
*Groomer and similar soils:* 20 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Sledrunner**

#### **Setting**

*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope, crest  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex, linear  
*Parent material:* Mass movement deposits and/or slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from shale

## Custom Soil Resource Report

### Typical profile

*A - 0 to 2 inches:* silty clay loam  
*Btk1 - 2 to 23 inches:* silty clay  
*Btk2 - 23 to 41 inches:* silty clay  
*BCK1 - 41 to 53 inches:* silty clay  
*BCK2 - 53 to 79 inches:* silty clay

### Properties and qualities

*Slope:* 5 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.07 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 10 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 5.0  
*Available water supply, 0 to 60 inches:* High (about 10.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* D  
*Ecological site:* R043BY210WY - Dense Clay Foothills and Mountains West  
*Other vegetative classification:* Douglas-fir/pinegrass (SC320)  
*Hydric soil rating:* No

### Description of Youga

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Mass movement deposits and/or slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from shale

#### Typical profile

*A - 0 to 8 inches:* loam  
*Bt1 - 8 to 16 inches:* loam  
*Bt2 - 16 to 24 inches:* sandy clay loam  
*2BCK1 - 24 to 35 inches:* silty clay  
*2BCK2 - 35 to 79 inches:* parachannery silty clay loam

#### Properties and qualities

*Slope:* 5 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.07 to 0.21 in/hr)  
*Depth to water table:* More than 80 inches

## Custom Soil Resource Report

*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water supply, 0 to 60 inches:* High (about 9.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* C  
*Ecological site:* R043BY222WY - Loamy Foothills and Mountains West  
*Hydric soil rating:* No

### Description of Groomer

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Interfluve, crest  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear, concave  
*Parent material:* Mass movement deposits and/or slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from shale

#### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*A - 2 to 6 inches:* loam  
*AB - 6 to 10 inches:* loam  
*Bt - 10 to 31 inches:* gravelly clay loam  
*BC - 31 to 51 inches:* silty clay loam  
*BCK - 51 to 79 inches:* silty clay loam

#### Properties and qualities

*Slope:* 5 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 10 percent  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water supply, 0 to 60 inches:* High (about 9.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* C  
*Ecological site:* F043BP708WY - Upland Aspen Woodland Group  
*Other vegetative classification:* Populus tremuloides/Symphoricarpos oreophilus  
c.t. - Boulder (KH209)  
*Hydric soil rating:* No

**Minor Components**

**Burnt lake**

*Percent of map unit:* 10 percent  
*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Hydric soil rating:* No

**Watsondraw**

*Percent of map unit:* 5 percent  
*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Hydric soil rating:* No

**Animas**

*Percent of map unit:* 5 percent  
*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* No

**5528—Calsig-Kismetpeak complex, 10 to 35 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 2qcsp  
*Landscape:* Foothills  
*Elevation:* 7,300 to 8,300 feet  
*Mean annual precipitation:* 24 to 30 inches  
*Mean annual air temperature:* 32 to 34 degrees F  
*Frost-free period:* 15 to 40 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Calsig and similar soils:* 55 percent  
*Kismetpeak and similar soils:* 35 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Calsig

### Setting

*Landscape:* Foothills

*Landform:* Hills on escarpments, Mountain slopes

*Landform position (two-dimensional):* Backslope, footslope

*Landform position (three-dimensional):* Mountainflank, side slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from sandstone and shale

### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material

*A - 2 to 7 inches:* loam

*Bt1 - 7 to 20 inches:* sandy clay loam

*Bt2 - 20 to 30 inches:* gravelly sandy clay loam

*2BC - 30 to 51 inches:* loam

*2BCk1 - 51 to 63 inches:* fine sandy loam

*2BCk2 - 63 to 79 inches:* very parachannery silt loam

### Properties and qualities

*Slope:* 10 to 35 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 15 percent

*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)

*Sodium adsorption ratio, maximum:* 2.0

*Available water supply, 0 to 60 inches:* High (about 10.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e

*Land capability classification (nonirrigated):* 6e

*Hydrologic Soil Group:* B

*Ecological site:* F043BP710WY - Upland Cool Woodland Group

*Other vegetative classification:* Douglas-fir/pinegrass (SC320)

*Hydric soil rating:* No

## Description of Kismetpeak

### Setting

*Landscape:* Foothills

*Landform:* Hills on escarpments, Mountain slopes

*Landform position (two-dimensional):* Backslope, shoulder

*Landform position (three-dimensional):* Mountainflank, side slope, nose slope

*Down-slope shape:* Convex, linear

*Across-slope shape:* Linear, convex, concave

*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from sandstone

## Custom Soil Resource Report

### Typical profile

*A - 0 to 4 inches:* loam  
*Bw - 4 to 17 inches:* sandy loam  
*C - 17 to 28 inches:* sand  
*Cr - 28 to 79 inches:* bedrock

### Properties and qualities

*Slope:* 10 to 35 percent  
*Depth to restrictive feature:* 20 to 39 inches to paralithic bedrock  
*Drainage class:* Somewhat excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.00 to 0.28 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 2 percent  
*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very low (about 2.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 7e  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* C  
*Ecological site:* F043BP710WY - Upland Cool Woodland Group  
*Hydric soil rating:* No

### Minor Components

#### Bridgerton

*Percent of map unit:* 5 percent  
*Landscape:* Foothills  
*Landform:* Mountain slopes, Structural benches on escarpments  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Calsig taxadjunct, overflow

*Percent of map unit:* 3 percent  
*Landscape:* Foothills  
*Landform:* Mountain slopes, Structural benches on escarpments  
*Landform position (two-dimensional):* Backslope, footslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Hydric soil rating:* No

#### Watsondraw

*Percent of map unit:* 2 percent  
*Landscape:* Foothills  
*Landform:* Structural benches on escarpments  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave

Custom Soil Resource Report

*Hydric soil rating:* No

## Sublette County Area, Wyoming

### 5329—Sighill-Southrim-Watsondraw complex, 3 to 15 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2pfc6  
*Landscape:* Foothills  
*Elevation:* 7,690 to 8,400 feet  
*Mean annual precipitation:* 25 to 30 inches  
*Mean annual air temperature:* 32 to 34 degrees F  
*Frost-free period:* 15 to 40 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Sighill and similar soils:* 40 percent  
*Southrim and similar soils:* 25 percent  
*Watsondraw and similar soils:* 25 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Sighill

##### Setting

*Landscape:* Foothills  
*Landform:* Hills, Eroded fan remnants  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear  
*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from sandstone

##### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*E - 2 to 14 inches:* sandy loam  
*EB - 14 to 22 inches:* very cobbly sandy loam  
*Bt1 - 22 to 28 inches:* gravelly loam  
*Bt2 - 28 to 37 inches:* gravelly sandy clay loam  
*2C - 37 to 79 inches:* sand

##### Properties and qualities

*Slope:* 3 to 15 percent  
*Depth to restrictive feature:* 17 to 51 inches to strongly contrasting textural stratification  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.71 to 2.13 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Low (about 5.2 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 6c  
*Land capability classification (nonirrigated):* 6c

## Custom Soil Resource Report

*Hydrologic Soil Group:* B

*Ecological site:* F043BP709WY - Upland Cold Woodland Group

*Other vegetative classification:* subalpine fir/heartleaf arnica (SC780)

*Hydric soil rating:* No

### Description of Southrim

#### Setting

*Landscape:* Foothills

*Landform:* Hills, Eroded fan remnants

*Down-slope shape:* Convex, linear

*Across-slope shape:* Linear

*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock

#### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material

*E - 2 to 11 inches:* loam

*Bt1 - 11 to 16 inches:* gravelly clay loam

*Bt2 - 16 to 37 inches:* clay

*Bt3 - 37 to 79 inches:* clay

#### Properties and qualities

*Slope:* 3 to 15 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Moderately well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.07 to 0.21 in/hr)

*Depth to water table:* About 36 to 72 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)

*Available water supply, 0 to 60 inches:* High (about 10.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 6c

*Land capability classification (nonirrigated):* 6c

*Hydrologic Soil Group:* D

*Ecological site:* F043BP709WY - Upland Cold Woodland Group

*Other vegetative classification:* subalpine fir/pinegrass (SC750)

*Hydric soil rating:* No

### Description of Watsondraw

#### Setting

*Landscape:* Foothills

*Landform:* Hills, Eroded fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock

#### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material

*A - 2 to 3 inches:* gravelly sandy loam

*E - 3 to 20 inches:* gravelly sandy loam

*Bt1 - 20 to 37 inches:* very cobbly sandy clay loam

*Bt2 - 37 to 54 inches:* gravelly sandy clay loam

## Custom Soil Resource Report

*BC - 54 to 79 inches: gravelly sandy clay loam*

### **Properties and qualities**

*Slope: 3 to 15 percent*

*Depth to restrictive feature: More than 80 inches*

*Drainage class: Well drained*

*Runoff class: Low*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)*

*Depth to water table: More than 80 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

*Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)*

*Available water supply, 0 to 60 inches: Moderate (about 7.7 inches)*

### **Interpretive groups**

*Land capability classification (irrigated): 6c*

*Land capability classification (nonirrigated): 6c*

*Hydrologic Soil Group: B*

*Ecological site: F043BP709WY - Upland Cold Woodland Group*

*Other vegetative classification: subalpine fir/Oregon grape (SC703)*

*Hydric soil rating: No*

### **Minor Components**

#### **Mine**

*Percent of map unit: 5 percent*

*Landscape: Foothills*

*Landform: Hills, Eroded fan remnants*

*Landform position (three-dimensional): Interfluve*

*Down-slope shape: Linear*

*Across-slope shape: Convex, linear*

*Hydric soil rating: No*

#### **Animas**

*Percent of map unit: 3 percent*

*Landscape: Foothills*

*Landform: Hills, Eroded fan remnants*

*Down-slope shape: Concave, convex*

*Across-slope shape: Linear, concave*

*Hydric soil rating: No*

#### **Mudbuz**

*Percent of map unit: 2 percent*

*Landscape: Foothills*

*Landform: Hills, Eroded fan remnants*

*Down-slope shape: Linear*

*Across-slope shape: Convex, linear*

*Hydric soil rating: No*

## 5525—Sledrunner-Youga-Groomer complex, 5 to 30 percent slopes

### Map Unit Setting

*National map unit symbol:* 2pf4w  
*Landscape:* Foothills  
*Elevation:* 7,380 to 8,200 feet  
*Mean annual precipitation:* 15 to 19 inches  
*Mean annual air temperature:* 33 to 35 degrees F  
*Frost-free period:* 25 to 45 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Sledrunner and similar soils:* 35 percent  
*Youga and similar soils:* 25 percent  
*Groomer and similar soils:* 20 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Sledrunner

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope, crest  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex, linear  
*Parent material:* Mass movement deposits and/or slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from shale

#### Typical profile

*A - 0 to 2 inches:* silty clay loam  
*Btk1 - 2 to 23 inches:* silty clay  
*Btk2 - 23 to 41 inches:* silty clay  
*BCK1 - 41 to 53 inches:* silty clay  
*BCK2 - 53 to 79 inches:* silty clay

#### Properties and qualities

*Slope:* 5 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.07 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 10 percent

## Custom Soil Resource Report

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 5.0  
*Available water supply, 0 to 60 inches:* High (about 10.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* D  
*Ecological site:* R043BY210WY - Dense Clay Foothills and Mountains West  
*Other vegetative classification:* Douglas-fir/pinegrass (SC320)  
*Hydric soil rating:* No

### Description of Youga

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Mass movement deposits and/or slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from shale

#### Typical profile

*A - 0 to 8 inches:* loam  
*Bt1 - 8 to 16 inches:* loam  
*Bt2 - 16 to 24 inches:* sandy clay loam  
*2Bck1 - 24 to 35 inches:* silty clay  
*2Bck2 - 35 to 79 inches:* parachannery silty clay loam

#### Properties and qualities

*Slope:* 5 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.07 to 0.21 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water supply, 0 to 60 inches:* High (about 9.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* C  
*Ecological site:* R043BY222WY - Loamy Foothills and Mountains West  
*Hydric soil rating:* No

### Description of Groomer

#### Setting

*Landscape:* Foothills  
*Landform:* Hills, Landslides

## Custom Soil Resource Report

*Landform position (three-dimensional):* Interfluve, crest  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear, concave  
*Parent material:* Mass movement deposits and/or slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from shale

### Typical profile

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*A - 2 to 6 inches:* loam  
*AB - 6 to 10 inches:* loam  
*Bt - 10 to 31 inches:* gravelly clay loam  
*BC - 31 to 51 inches:* silty clay loam  
*BCK - 51 to 79 inches:* silty clay loam

### Properties and qualities

*Slope:* 5 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 10 percent  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water supply, 0 to 60 inches:* High (about 9.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* C  
*Ecological site:* F043BP708WY - Upland Aspen Woodland Group  
*Other vegetative classification:* Populus tremuloides/Symphoricarpos oreophilus c.t. - Boulder (KH209)  
*Hydric soil rating:* No

### Minor Components

#### Burnt lake

*Percent of map unit:* 10 percent  
*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Hydric soil rating:* No

#### Watsondraw

*Percent of map unit:* 5 percent  
*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave, linear  
*Hydric soil rating:* No

**Animas**

*Percent of map unit:* 5 percent  
*Landscape:* Foothills  
*Landform:* Hills, Landslides  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* No

**5528—Calsig-Kismetpeak complex, 10 to 35 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 2qcsp  
*Landscape:* Foothills  
*Elevation:* 7,300 to 8,300 feet  
*Mean annual precipitation:* 24 to 30 inches  
*Mean annual air temperature:* 32 to 34 degrees F  
*Frost-free period:* 15 to 40 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Calsig and similar soils:* 55 percent  
*Kismetpeak and similar soils:* 35 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Calsig**

**Setting**

*Landscape:* Foothills  
*Landform:* Mountain slopes, Hills on escarpments  
*Landform position (two-dimensional):* Backslope, footslope  
*Landform position (three-dimensional):* Mountainflank, side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from sandstone and shale

**Typical profile**

*Oe - 0 to 2 inches:* moderately decomposed plant material  
*A - 2 to 7 inches:* loam  
*Bt1 - 7 to 20 inches:* sandy clay loam  
*Bt2 - 20 to 30 inches:* gravelly sandy clay loam  
*2BC - 30 to 51 inches:* loam  
*2BCk1 - 51 to 63 inches:* fine sandy loam  
*2BCk2 - 63 to 79 inches:* very parachannery silt loam

## Custom Soil Resource Report

### Properties and qualities

*Slope:* 10 to 35 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Maximum salinity:* Nonsaline (0.0 to 0.2 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water supply, 0 to 60 inches:* High (about 10.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* B  
*Ecological site:* F043BP710WY - Upland Cool Woodland Group  
*Other vegetative classification:* Douglas-fir/pinegrass (SC320)  
*Hydric soil rating:* No

### Description of Kismetpeak

#### Setting

*Landscape:* Foothills  
*Landform:* Mountain slopes, Hills on escarpments  
*Landform position (two-dimensional):* Shoulder, backslope  
*Landform position (three-dimensional):* Mountainflank, nose slope, side slope  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Convex, concave, linear  
*Parent material:* Slope alluvium derived from metamorphic and sedimentary rock over residuum weathered from sandstone

#### Typical profile

*A - 0 to 4 inches:* loam  
*Bw - 4 to 17 inches:* sandy loam  
*C - 17 to 28 inches:* sand  
*Cr - 28 to 79 inches:* bedrock

### Properties and qualities

*Slope:* 10 to 35 percent  
*Depth to restrictive feature:* 20 to 39 inches to paralithic bedrock  
*Drainage class:* Somewhat excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.00 to 0.28 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 2 percent  
*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very low (about 2.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 7e  
*Land capability classification (nonirrigated):* 7e

## Custom Soil Resource Report

*Hydrologic Soil Group: C*

*Ecological site: F043BP710WY - Upland Cool Woodland Group*

*Hydric soil rating: No*

### Minor Components

#### **Bridgerton**

*Percent of map unit: 5 percent*

*Landscape: Foothills*

*Landform: Structural benches on escarpments, Mountain slopes*

*Landform position (two-dimensional): Backslope*

*Landform position (three-dimensional): Side slope*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Hydric soil rating: No*

#### **Calsig taxadjunct, overflow**

*Percent of map unit: 3 percent*

*Landscape: Foothills*

*Landform: Mountain slopes, Structural benches on escarpments*

*Landform position (two-dimensional): Backslope, footslope*

*Landform position (three-dimensional): Side slope*

*Down-slope shape: Linear*

*Across-slope shape: Concave, linear*

*Hydric soil rating: No*

#### **Watsondraw**

*Percent of map unit: 2 percent*

*Landscape: Foothills*

*Landform: Structural benches on escarpments*

*Landform position (two-dimensional): Backslope*

*Landform position (three-dimensional): Side slope*

*Down-slope shape: Concave*

*Across-slope shape: Concave*

*Hydric soil rating: No*

# References

---

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_054262](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262)
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053577](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577)
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053580](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580)
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2\\_053374](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374)
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

## Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053624](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624)

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_052290.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf)

## Appendix C: Troublesome Weeds of Wyoming

The attached publication and other noxious weed information can be found at the following:

[IDENTIFY NOXIOUS WEEDS - Wyoming Weed & Pest Council](https://wyoweed.org/identify-weeds/)

<https://wyoweed.org/identify-weeds/>



## Appendix D: State Wildlife Action Plan for Wyoming

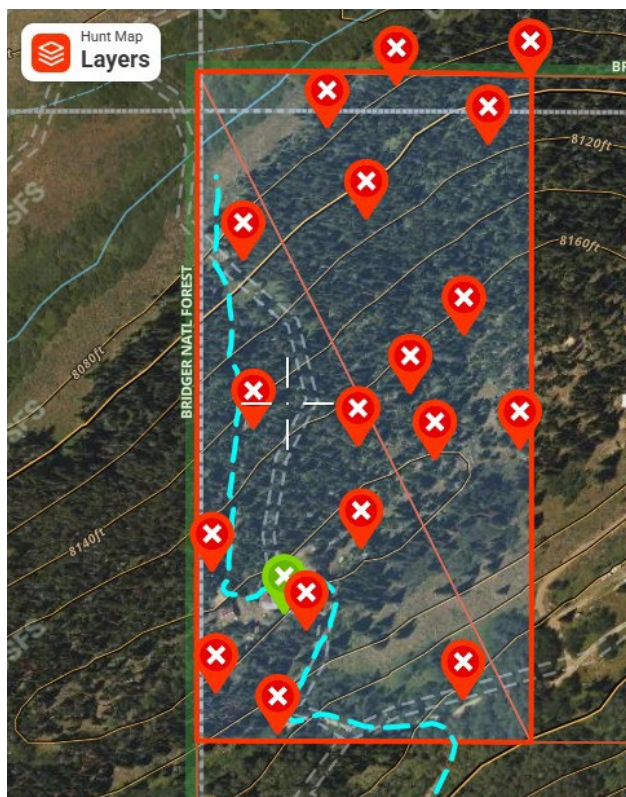
[Wyoming State Wildlife Action Plan | Wyoming Game & Fish Department](https://wgfd.wyo.gov/wyoming-wildlife/wyoming-state-wildlife-action-plan)

<https://wgfd.wyo.gov/wyoming-wildlife/wyoming-state-wildlife-action-plan>



## Appendix E: Timber Inventory

The following Reconnaissance and Cruise Report is a summary of raw data from a timber inventory taken on the property. These data were used to better form recommendations for the thinning on the property along with a reference for other land management practices. This Report also forms the foundation of land management recommendations within the Stewardship Plan.



	AVERAGE DIAMETER			
	SAPS	PT	ST	TOTAL
BA / AC	10.0	11.1	21.1	42.2
÷ TREES / AC	211.1	37.0	20.6	268.7
÷ .005454				
SQ RT				28.8
AVG DIA (QDM)				5.36728

	STAND SUMMARY			
	SAPS	PT	ST	TOTAL
# TALLIED	18	20	38	76
BAF	10	10	10	10
# POINTS	18	18	18	18
BAVAC	10.0	11.1	21.1	42.2

NEW MEXICO FORESTRY DIVISION - FCI 20011, VARIABLE PLOT CRUISE																							
LANDOWNER: Gally Property																							
ADDRESS: _____																							
LOCATION: Near Daniel Junction WY																							
DATE: 7/11/2024																							
FOREST TYPE: Lodgepole / Doug Fir (Mixed Conifer)																							
TRACT ACRES: 20																							
IN: _____																							
OUT: PAGE 1 OF 1																							
BA FACTOR: 10																							
NUM. OF PLOTS: 18																							
PLOT NO.	SPECIES (CO, PI, PS)	DIAMETER CLASS and SIZE CLASS (IN)												Seedlings # 6" to 4.5" 0.5-0.99 1-4.5	Chips # max 6" max			Scattered Firewood					
		SAPLINGS			POLETIMBER			SAWTIMBER							Trans. 50'/5'	Y/N							
BA	1-2.99	3-4.99	5-6.99	7-8.99	9-10.99	11-12.99	13-14.99	15-16.99	17-18.99	19-20.99	21-22.99	23-24.99	25-26.99	27-28.99			29-30.99	31-32.99+	N	S	E	W	
1	PICO	30	1	1													0	0	0	0	0	None	None
	PSME	20							1								0	0	0	0	0	None	None
2	PICO	30															0	0	0	0	0	None	None
		0																					
3	PICO	20							1								0	0	0	0	0	None	None
	PSME	20	1	1													0	0	0	0	0	None	None
4	PSME	60	1	3	1	1																	
5	PICO	10							1														
	PSME	30							1														
6	PICO	50						2	2	1							0	0	0	0	0	None	None
	PSME	20						1															
7	PSME	90						1	2	3													
	PICO	0															0	0	0	0	0	None	None
8	PICO	0																					
	PSME	80						1															
9	PSME	0																					
10	PSME	80						1	1	3	2												
11	PICO	70						3	1	3													
	PSME	40								1	2	1											
12	PICO	0																					
	PSME	0																					
13	PICO	0																					
	PSME	0																					
14	PICO	0																					
	PSME	0																					
15	PICO	0																					
	PSME	0																					
16	PICO	0																					
	PSME	0																					
17	PICO	0																					
	PSME	0																					
18	PSME	20						2															
	PICO	90	2	2	2	3																	
		0																					
		0																					

COMMENTS: LO CONCERNS; CONTRACTOR; PROJECT STATUS; GROUND CONDITIONS; WOOD PRODUCTS/FIREWOOD; INSECTS & DISEASE; BMP/SWMP STREAMS; EROSION CONTROL; PRUNING; CROWN SPACING; LADDER FUELS; DISTRIBUTION; UNDERSTORY; GPS ACCURACY; SAMPLE SPECIES CODES: PIPO, JUDE, JUSC, JUDE, PIPO, PSME, ABCO, PIST, PIPU, GUGA, POTR



## Appendix F: Link to a list of commonly used forestry definitions

[https://efotg.sc.egov.usda.gov/references/public/NM/forestry\\_wood20a.pdf](https://efotg.sc.egov.usda.gov/references/public/NM/forestry_wood20a.pdf)



## Appendix G: Wyoming Best Management Practices

The following is a link to the State Of Wyoming Best Management Practices for Forestry related activities.

### [Wyoming Best Management Practices](#)

