3.13 Wildlife and Wildlife Habitat (Including Threatened, Endangered, Candidate, and Sensitive Species)

3.13.1 Introduction

This section describes the existing (baseline) conditions relevant to wildlife species and supporting habitats that have the potential to be affected by the SGP.

3.13.2 Wildlife and Wildlife Habitat Area of Analysis

Detailed information regarding the methods and rationale for determining the analysis areas for wildlife are described further in Sections 5.1 and 5.2 of the Wildlife and Wildlife Habitat Specialist Report (Forest Service 2023j).

The wildlife analysis area covers approximately 613,793 acres of land, with 253,654 acres (41 percent) on the BNF, 127,487 acres (21 percent) on the PNF, 39,988 acres (7 percent) on the Salmon-Challis National Forest (acres that would be directly impacted by the SGP are administered by the PNF), and 192,664 acres (31 percent) outside Forest Service boundaries. The analysis area is shown in **Figure 3.13-1**. If not discussed in this section, all other wildlife species were analyzed using the HUC 12 wildlife analysis area.

The Canada lynx analysis area includes the seven Lynx Analysis Units (LAUs) located within the wildlife analysis area. LAUs were delineated across the PNF and BNF using fifth-level HUC boundaries, with some using sixth-level HUC boundaries, where applicable. Appendix C of the Wildlife and Wildlife Habitat Specialist Report (Forest Service 2023j) contains more information about LAUs. **Figure 3.13-2** shows the Canada lynx analysis area, which includes approximately 656,493 acres as defined by the seven LAUs (i.e., Stibnite, Yellowpine, Burntlog, Landmark, Warm Lake, East Mountain, and West Mountain) and the current modeled source habitat for the species in the Canada lynx analysis area.

NIDGS have a very limited distribution and are only known to occur in three watersheds in Idaho: Brownlee, Little Salmon, and Weiser. (Crist and Nutt 2007). **Figure 3.13-3** shows the NIDGS analysis area, which is approximately 17,917 acres and consists of modeled suitable habitat within the HUC12 wildlife analysis area. NIDGS would only have the potential to occur in specific elevations, topography, and vegetation types within the NIDGS analysis area. Appendix A of the Wildlife and Wildlife Habitat Specialist Report (Forest Service 2023j) includes more information about the habitat modeling used for NIDGS.

Habitat for the wolverine within the wolverine analysis area was modeled based on the persistent spring snow model updated for the PNF and BNF (2009-2015) for the Wolverine – Winter Recreation Research Project: Investigating the Interactions Between Wolverines and Winter Recreation study (Heinemeyer et al. 2017)**.** In the wildlife analysis area, wolverines are most likely to use habitats with persistent spring snow cover for denning and winter range and are expected to move through areas without snow at different times of the year. Appendix A of the Wildlife and Wildlife Habitat Specialist Report (Forest Service 2023j) includes more information about the habitat modeling used for wolverine. The HUC 12 wildlife analysis area with modeled wolverine habitat is shown on **Figure 3.13-4**.

The analysis area for the monarch butterfly is defined as the HUC 12 wildlife analysis area but limited to areas below 5,600 feet amsl (**Figure 3.13-1**), which is approximately 198,592 acres.

The analysis area for Rocky Mountain bighorn sheep (bighorn sheep) is based on the habitat model developed to quantify summer and winter habitat on the PNF. Based on known occupancy in the FCRNRW, the bighorn sheep analysis area also includes acreages in several HUC 12 watersheds on the Salmon-Challis National Forest (**Figures 3.13-5** and **3.13-6**).

Appendix A of the Wildlife and Wildlife Habitat Specialist Report (Forest Service 2023j) provides more information about the bighorn sheep source habitat model.

The riparian analysis area includes any water/wetland features and forested riparian areas (forest types not categorized as PVGs) within the HUC 12 wildlife analysis area. The riparian analysis area was developed to describe existing conditions and potential impacts to the Columbia spotted frog and other associated riparian species. **Figure 3.13-7** shows the riparian analysis area, which is approximately 126,942 acres.

3.13.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and regulations apply to the Proposed Action and Action Alternatives. The following is a list of additional laws, regulations, policies, and plans at the federal, state, or local level pertaining to wildlife and wildlife habitat. Additional descriptions of these regulations can be found in the SGP Wildlife and Wildlife Habitat Specialist Report (Forest Service 2023j).

Land and Resource Management Plans: The Payette Forest Plan (Forest Service 2003a), and the Boise Forest Plan (Forest Service 2010a) provide management prescriptions designed to realize goals for achieving desired conditions for wildlife and wildlife habitat and include various objectives, guidelines, and standards for this purpose.

The Payette and Boise Forest Plans include management direction for wildlife and wildlife habitat, including TEPC species. The Forest Plans prescribe management direction in order to achieve the desired outcomes and conditions for wildlife and wildlife habitat. Both the Payette and Boise Forest Plans have numerous goals, objectives, guidelines, and standards related to special status and general wildlife species.

Endangered Species Act: The ESA (16 USC 35 1531 et seq. 1988) provides for the protection and conservation of threatened and endangered species and their Critical Habitats. Section 7 of the ESA (16 USC 35.1531 et seq.) requires all federal agencies to consult or confer with the USFWS and/or the NMFS or NOAA Fisheries, collectively known as “the Services”, which share regulatory authority for implementing the ESA. Federal agencies must submit a Section 7 package for proposed actions that may affect ESA-listed species, species proposed for listing, or designated Critical Habitat for such species. The USFWS generally manages ESA-listed terrestrial and freshwater plant and animal species.

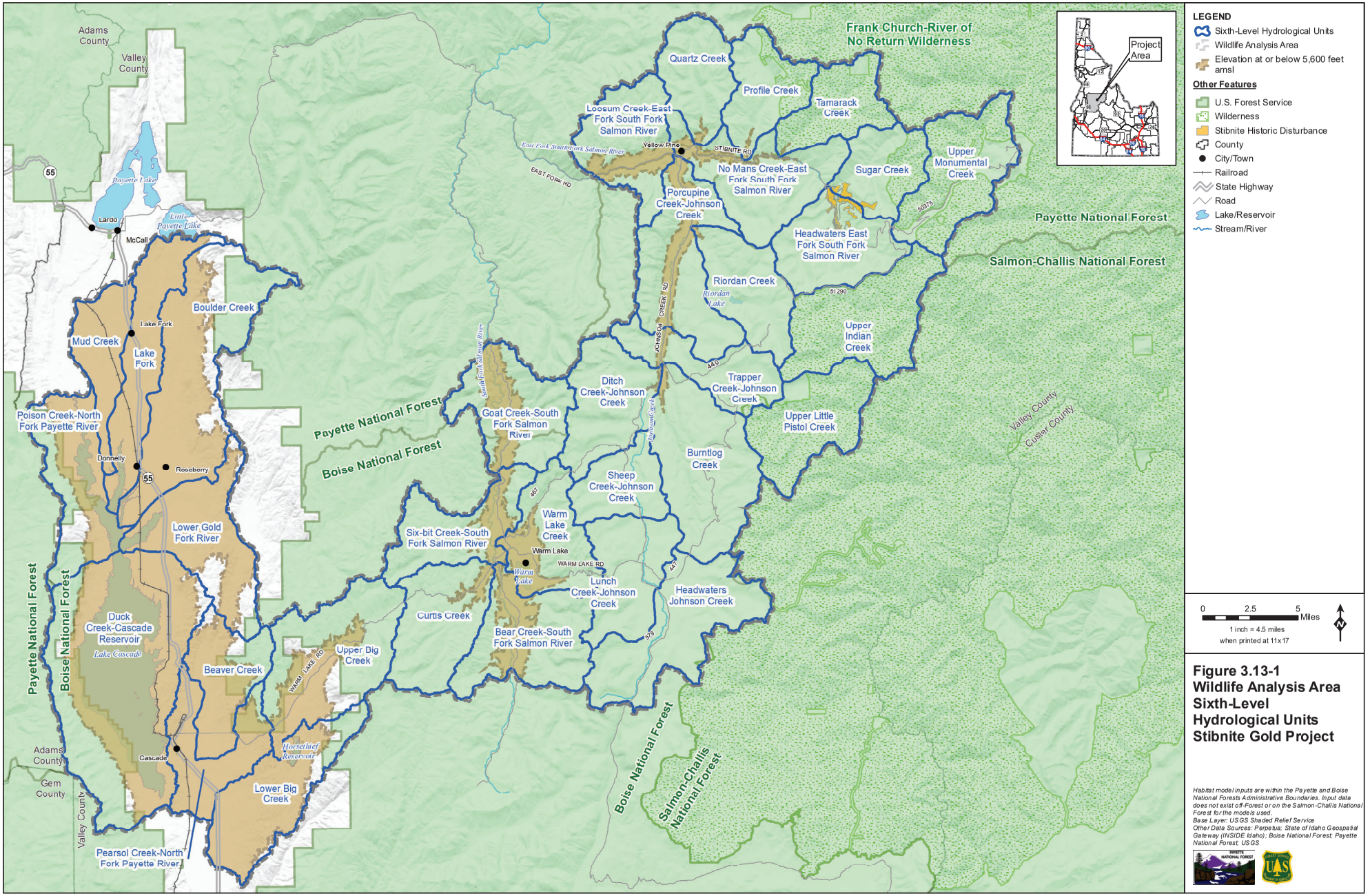


Figure 3.13-1
Wildlife Analysis Area
Sixth-Level
Hydrological Units
Stibnite Gold Project

Habitat model inputs are within the Payette and Boise National Forests Administrative Boundaries. Input data does not exist off-Forest or on the Salmon-Challis National Forest for the models used.
Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (IINSIDE Idaho); Boise National Forest; Payette National Forest; USGS

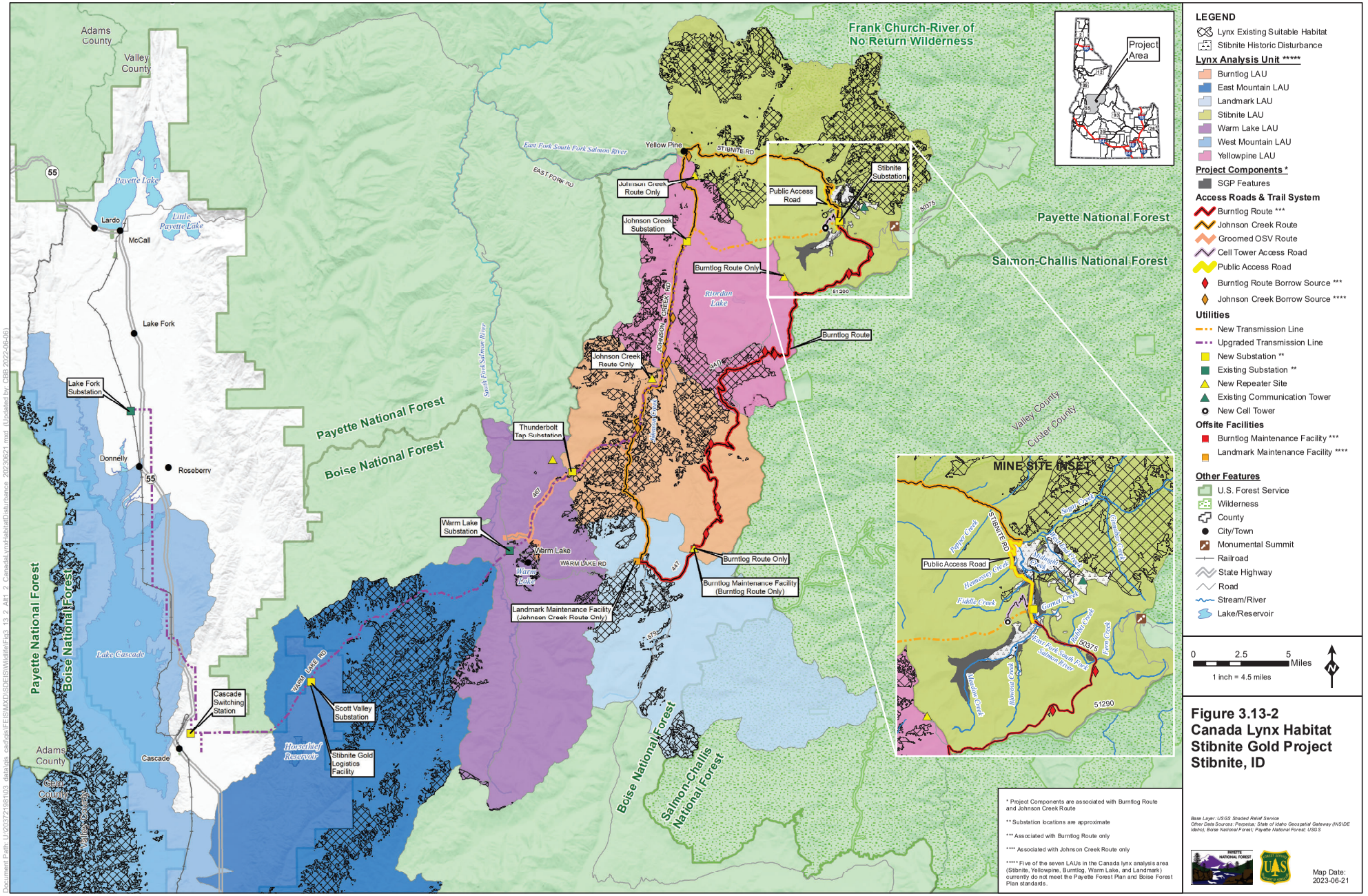


Figure 3.13-2
Canada Lynx Habitat
Stibnite Gold Project
Stibnite, ID

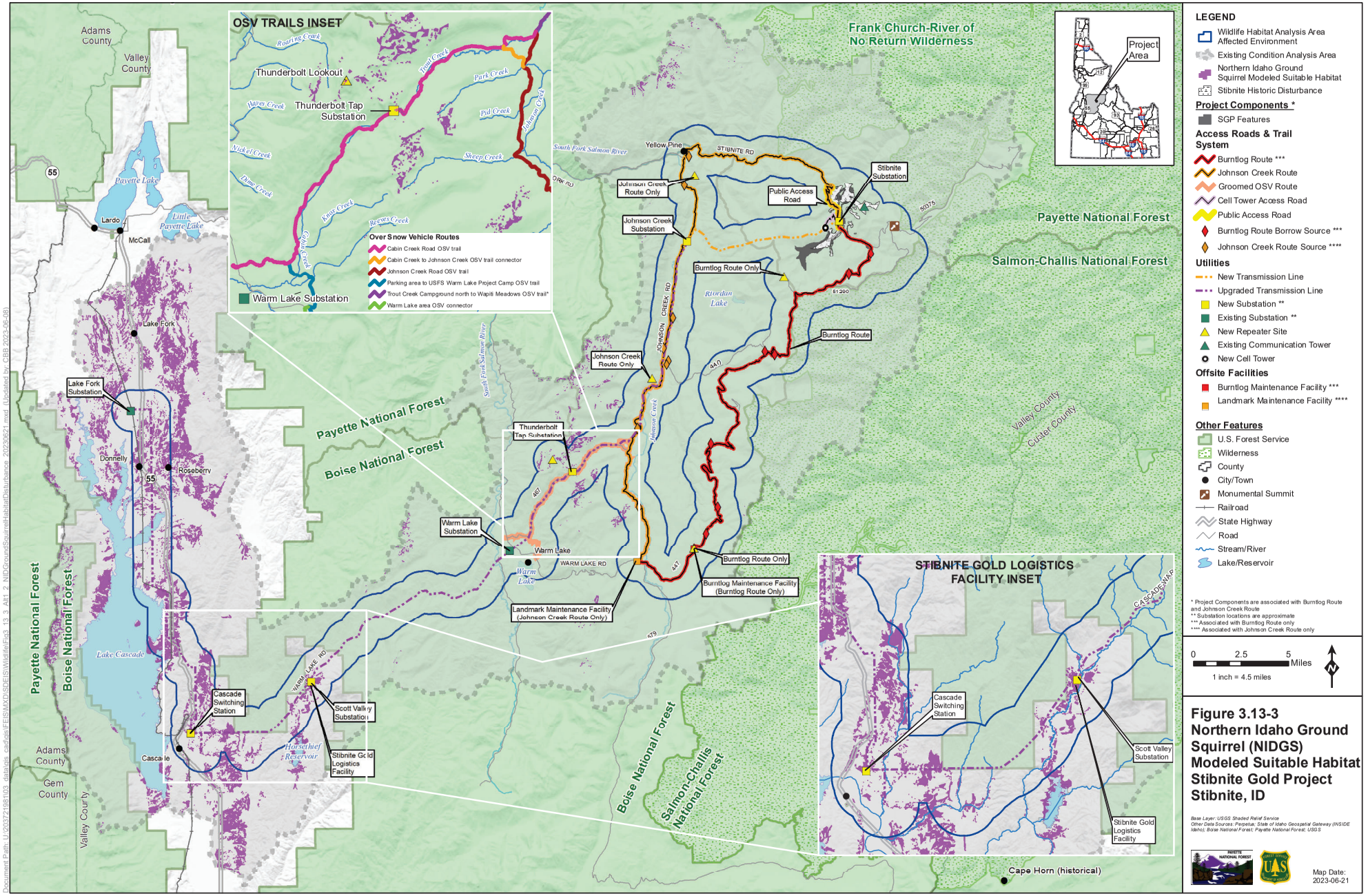


Figure 3.13-3
Northern Idaho Ground Squirrel (NIDGS) Modeled Suitable Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

Document Path: U:\20527219\81\03_data\gis_cad\gis\EIS\MXD\SOE\S\Wildlife\Fig3_13_3_Alt1_2_NIDGroundSquirrelHabitatDisturbance_20230621.mxd (Updated by: CBB 2023-06-08)

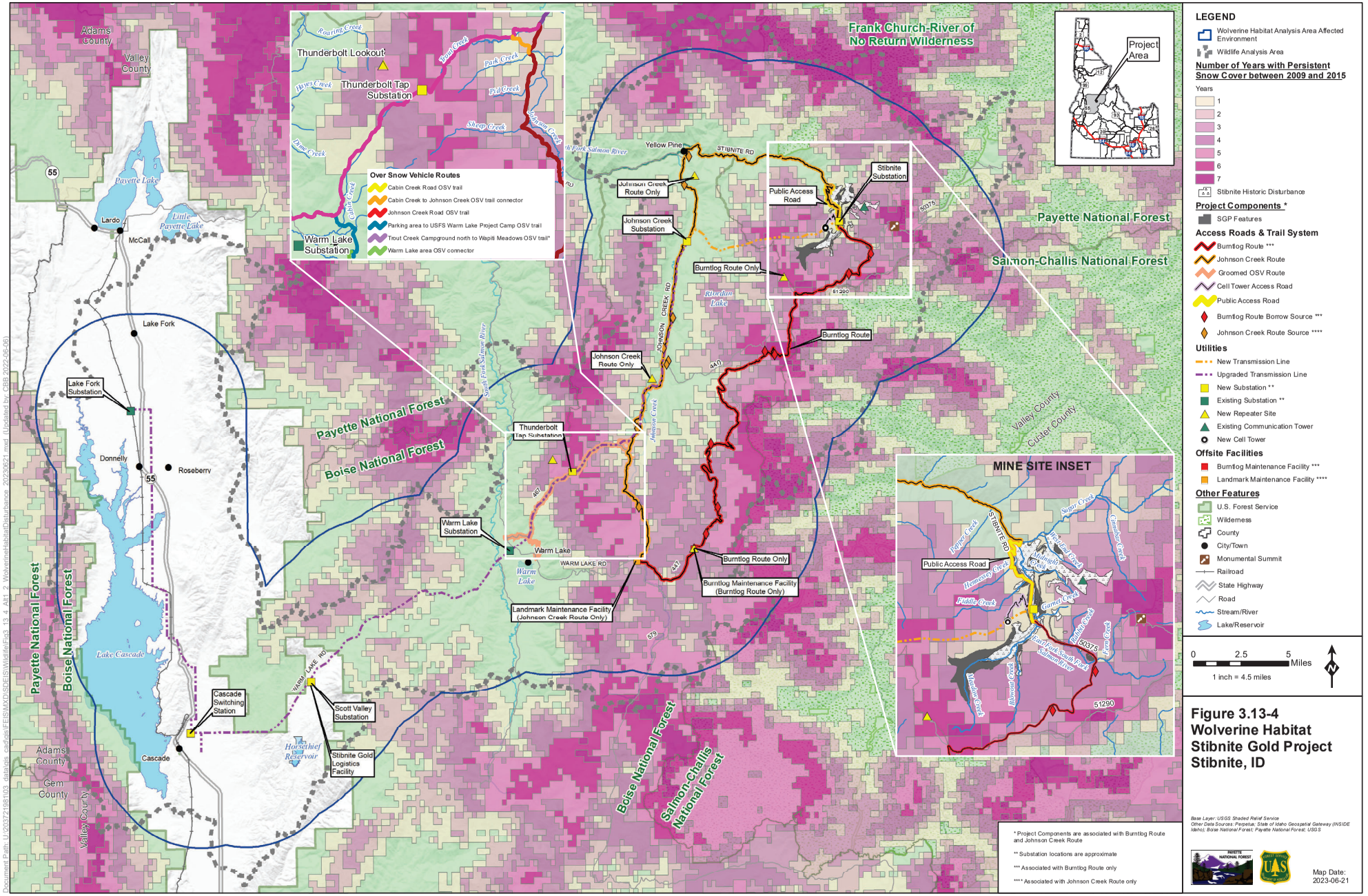


Figure 3.13-4
Wolverine Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

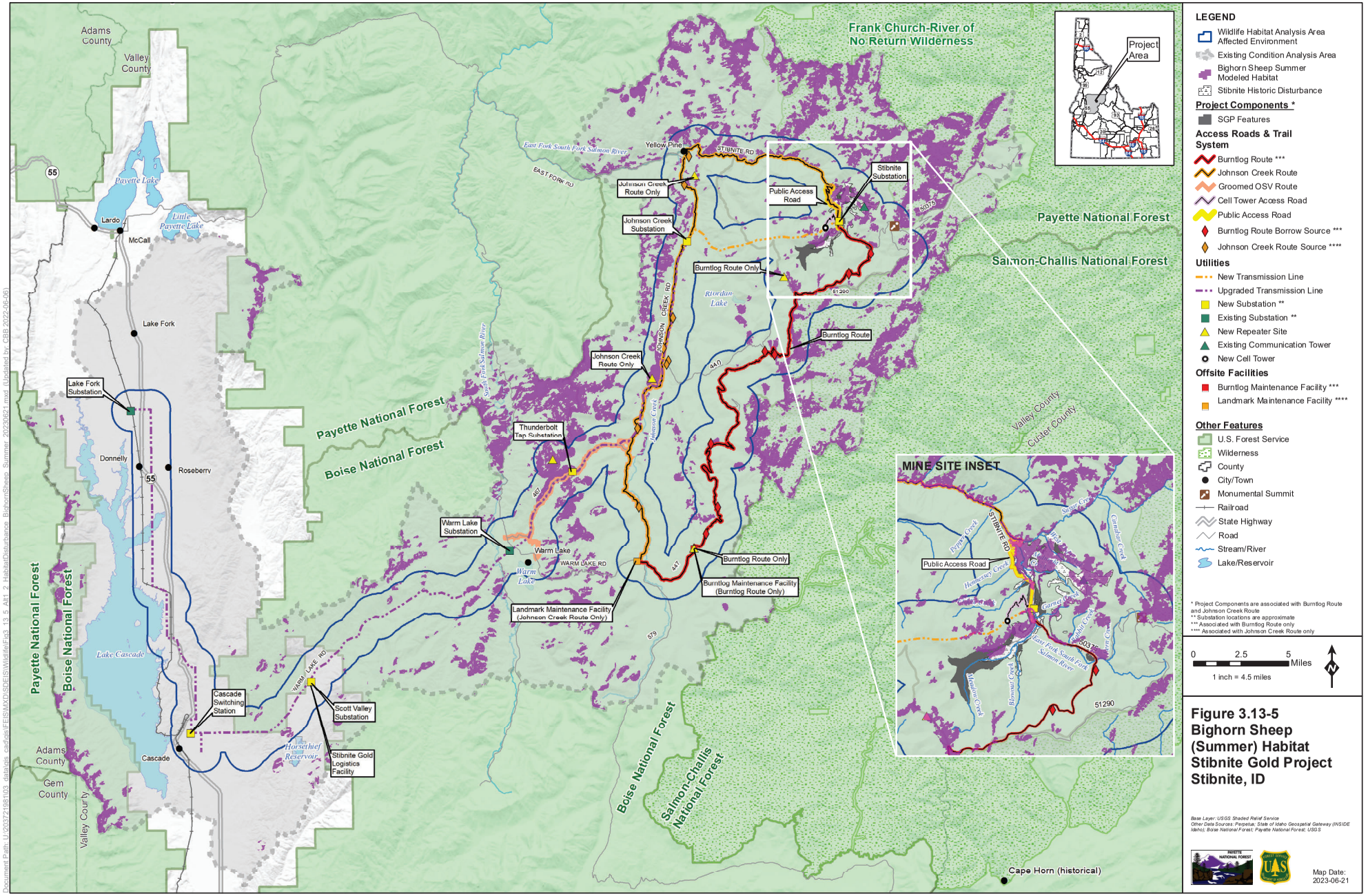
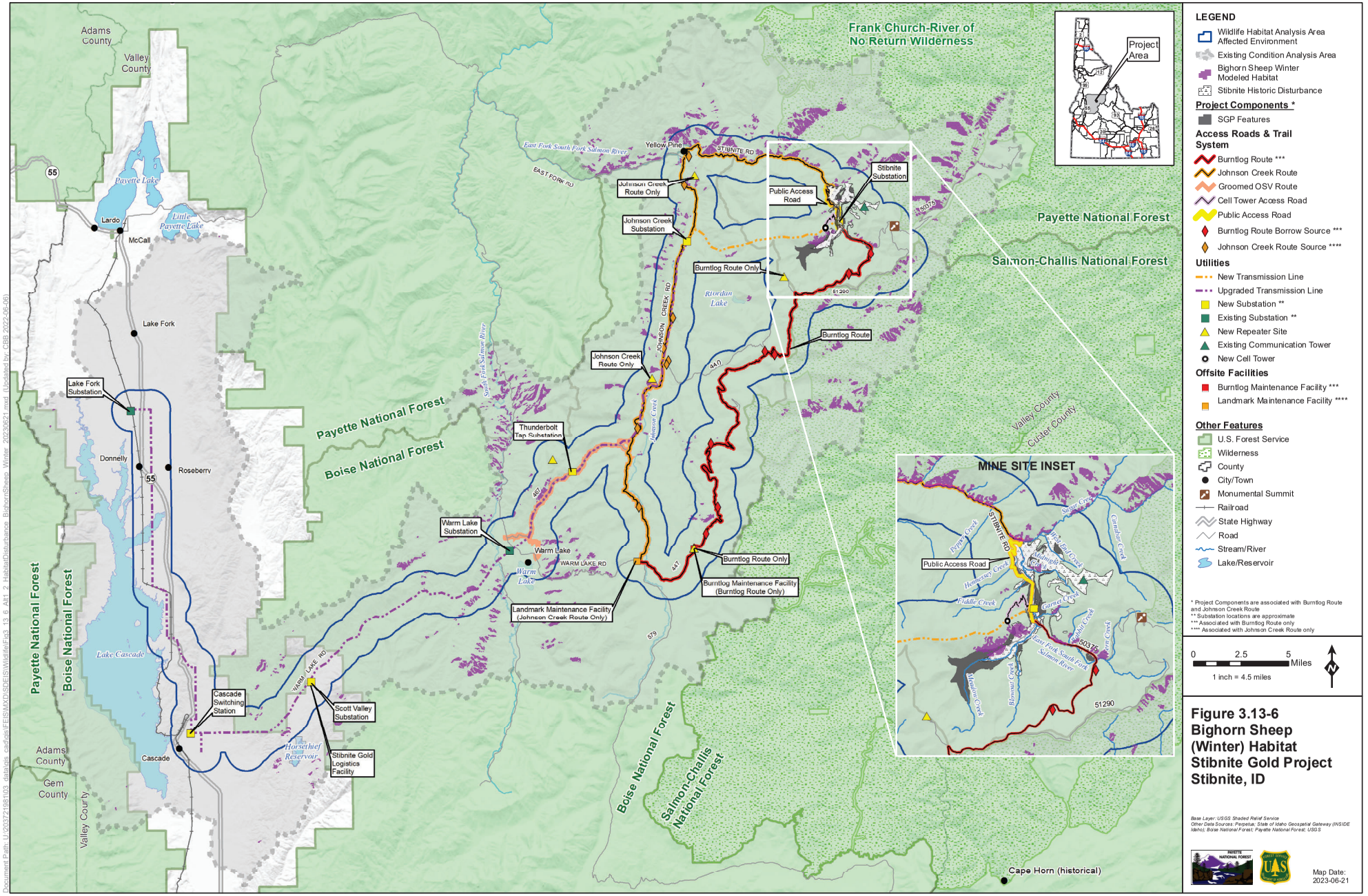


Figure 3.13-5 Bighorn Sheep (Summer) Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

Document Path: U:\20372198\103_data\gis_cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3_13_5_Alt1_2_HabitatDisturbance_BighornSheep_Summer_20230621.mxd (Updated by: CBB 2022-06-06)



LEGEND

- Wildlife Habitat Analysis Area Affected Environment
- Existing Condition Analysis Area
- Bighorn Sheep Winter Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access Road
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

Utilities

- New Transmission Line
- Upgraded Transmission Line
- New Substation **
- Existing Substation **
- New Repeater Site
- Existing Communication Tower
- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- State Highway
- Road
- Stream/River
- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

0 2.5 5 Miles

1 inch = 4.5 miles

Figure 3.13-6 Bighorn Sheep (Winter) Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

Document Path: U:\20372198\103 data\gis cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3 13 6 Alt1 2 HabitatDisturbance BighornSheep Winter 20230621.mxd (Updated by: CBB 2022-06-06)

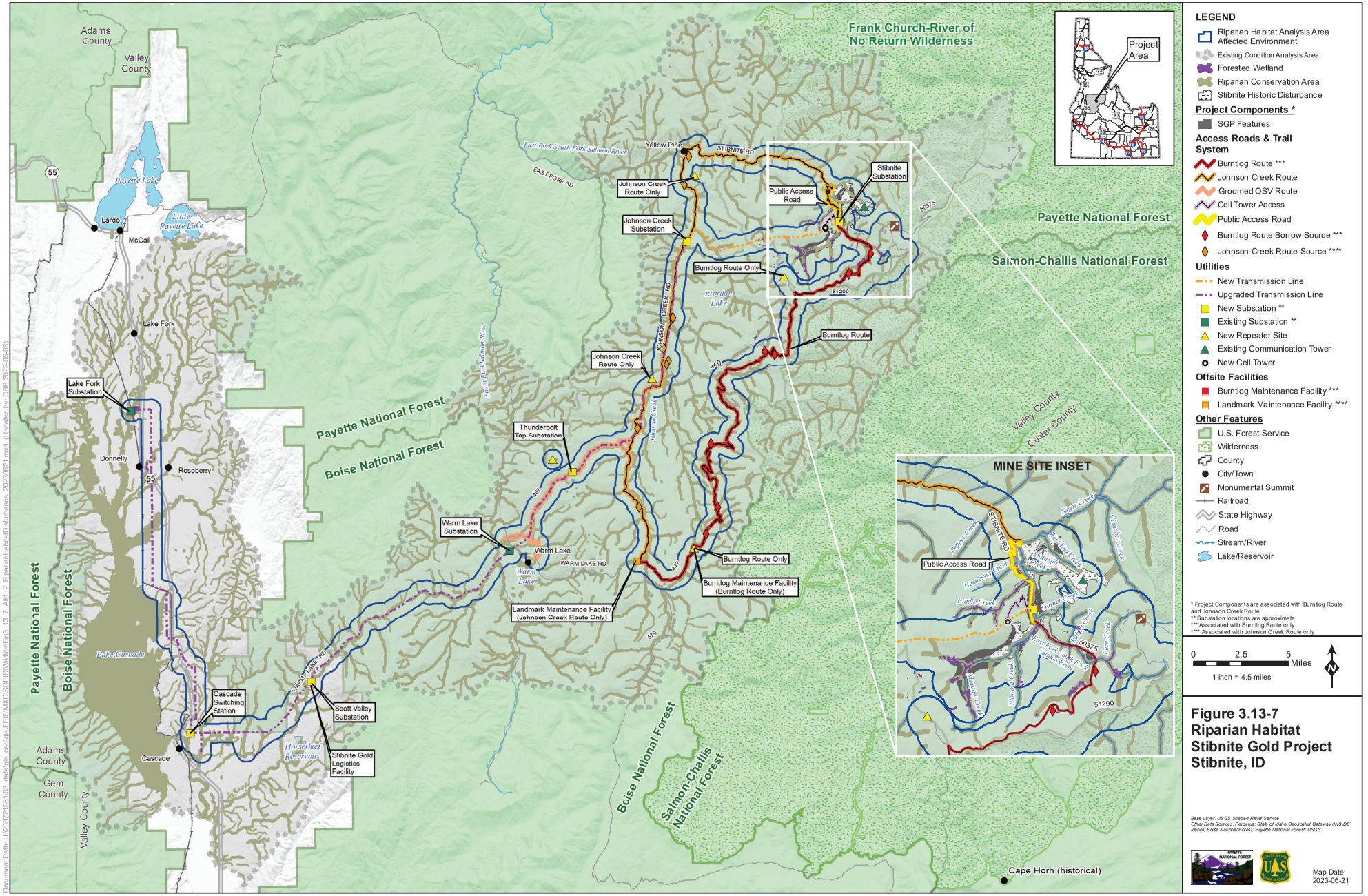


Figure 3.13-7
Riparian Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

Document Path: U:\20372198\103_data\gis_cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3_13_7_Alt1_2_RiparianHabitatDisturbance_20230621.mxd (Updated by: CBB 2022-06-06)

Migratory Bird Treaty Act (MBTA): The MBTA (16 USC 703–712) provides protection for all migratory bird species. The MBTA specifically prohibits any action to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird." (16 USC 703). The current list of migratory bird species can be found in 50 CFR Part 10.13.

Bald and Golden Eagle Protection Act (BGEPA): The BGEPA (16 USC 668-668d) provides protection for bald and golden eagles, including prohibition of interference with normal foraging, nesting, and rearing activities. This protection is separate from any ESA designation for either species. Additionally, the USFWS has developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the provisions of the BGEPA may apply to their activities.

Fish and Wildlife Coordination Act: The Fish and Wildlife Coordination Act (Act of March 10, 1934) authorizes the Secretaries of Agriculture and Commerce to provide assistance to, and cooperate with, federal and state agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. Amendments enacted in 1946 require consultation with the USFWS and the fish and wildlife agencies of states where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under a federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources."

Migratory Birds, EO 13186 of January 10, 2001: EO 13186 Responsibilities of Federal Agencies to Protect Migratory Birds (66 Federal Register 3853; January 2001) directs federal agencies to protect migratory birds. The USDA, Forest Service, and the USFWS signed a memorandum of understanding in December 2018 that outlines a collaborative approach to promote the conservation of migratory bird populations. The memorandum of understanding between the Forest Service and USFWS was designed to complement EO 13186.

Hunting Heritage and Wildlife Conservation, EO 13443 of August 20, 2007: EO 13443 Facilitation of Hunting Heritage and Wildlife Conservation (72 Federal Register 46537, August 20, 2007) directs appropriate federal agencies to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat.

State and Local Law: Idaho Code (Title 36) establishes the Idaho Fish and Wildlife Commission and the IDFG. It establishes fish and wildlife as the property of the citizens of Idaho and gives authority to IDFG to protect, preserve, perpetuate, and manage the state's fish and wildlife resources. The Commission has approved several fish and wildlife management plans that are relevant to the SGP. These include the Idaho Mule Deer Management Plan 2008-2017, the Idaho Elk Management Plan 2014-2024, the Management Plan for the Conservation of Wolverines in Idaho 2014-2019, and the Idaho State Wildlife Action Plan.

3.13.4 Affected Environment

The following subsections describe the existing conditions of TEPC species; focal species (including Region 4 Sensitive Species and MIS); Idaho Species of Greatest Conservation Need (SGCN); big game species; and migratory birds.

3.13.4.1 General Wildlife Habitat

Existing disturbance within the analysis area includes legacy mining-related disturbance and existing roads and trails. Legacy mining-related disturbance is primarily within the SGP mine site area with an estimated 1,593 acres of existing disturbance within areas that would be encompassed by the SGP under all alternatives.

Vegetation Conditions Related to Wildlife Habitat

The Forest Service maps PVGs and existing vegetation on the PNF and BNF (Forest Service 2005a). This mapping is available only for NFS lands. Both existing vegetation and PVG mapping are useful to understand the vegetation community characteristics of a site, and as such, both datasets are referenced and used as the basis for describing existing conditions and analysis of impacts to wildlife habitat. Most focal species models applied in this analysis use a combination of PVG, canopy cover, and tree size class to define and model source habitat both within and outside historic range of variability (HRV) conditions.

Potential Vegetation Groups

PVGs are generally a description of the climax plant community (final stage in ecological succession) that could be supported by a site, as determined by abiotic conditions such as climate, soil types, hydrological conditions, and topographical aspect. PVG descriptions derived from Payette and Boise Forest Plans (Forest Service 2003a, 2010a) are presented in the **Section 3.10** and the SGP Vegetation Specialist Report (Forest Service 2023g).

Existing Vegetation

The Vegetation Classification Mapping and Quantitative Inventory (VCMQI) existing vegetation types (Forest Service 2016b, 2017a) can be used to describe seral-stage (intermediate ecological succession) plant community composition as it was at the time of the most recent mapping. Existing vegetation mapping typically describes the current dominant vegetative cover or species occupying a site and is frequently updated to reflect vegetation changes due to disturbance such as fire, insects, and disease.

Vegetation communities in the region are generally coniferous forests typical of high mountain regions in Idaho and the inland northwestern U.S. The most common unburned existing vegetation types in the region are lodgepole pine forests, subalpine fir forests, Douglas-fir forests, ponderosa pine forests, and Engelmann spruce forests (Forest Service 2023g). Fires routinely occur in the wildlife analysis area and surrounding forests, and as such, much of the wildlife analysis area and vicinity is mapped as burned herb lands (grasses and forbs), burned sparse vegetation, and burned forest shrublands.

Riparian habitats are present along numerous waterbodies. Existing vegetation types in the vegetation analysis area are discussed further in **Section 3.10**.

Tree Canopy Cover Class

The Forest Service tracks the canopy cover class (i.e., how dense the tree canopy is) of the various VCMQI existing vegetation types (Forest Service 2016b, 2017a), which can be further used to assess specific habitat preferences for terrestrial wildlife species. Because of past disturbance from mining activity and large wildfires, tree canopy closure is low across many portions of the wildlife analysis area.

Tree Size Classes

The Forest Service categorizes tree size classes (i.e., how large the trees are) of the various VCMQI existing vegetation types (Forest Service 2016b, 2017a), which can be further used to assess specific habitat preferences for terrestrial wildlife species. Tree size classes in the wildlife analysis area also have been affected by past disturbance, including fire. A small percentage of the wildlife analysis area consists of large tree size classes (greater than 20 inches dbh). Small (5 to 10 inches dbh) and medium (10 to 20 inches dbh) tree size classes are more common throughout the wildlife analysis area. Sapling (0.1 to 5 inches dbh) and non-forested tree size classes are much less prevalent.

3.13.4.2 Threatened, Endangered, Proposed, and Candidate Species

Four TEPC species are either known to occur, or have the potential to occur, in the wildlife analysis area, and all four have their own species-specific analysis area within the broader wildlife analysis area. These species include Canada lynx, NIDGS, wolverine, and Monarch butterfly (**Table 3.13-1**). An additional federal threatened species, the yellow-billed cuckoo (*Coccyzus americanus*), was considered but dismissed from this analysis. There are no documented occurrences or potentially suitable habitat for this species in the SGP area and vicinity (Strobilus Environmental 2017). Additionally, results of a query of the USFWS Information, Planning, and Conservation Online Database for the SGP area did not include this species (USFWS 2019a).

Table 3.13-1 Focal Wildlife Species, including TEPC, Region 4 Sensitive, and MIS, and Habitat Considered for Analysis

Suite	Habitat Family	Focal Species Considered in this Analysis	Scientific Name	Species Status [1]	Occurrence in the Analysis Area
Forest Only	1—Low Elevation, Old Forest	White-headed Woodpecker	*Picoides albolarvatus*	S/MIS	Limited source habitat and occurrence in analysis area.
		Lewis's Woodpecker	*Melanerpes lewis*	S	Limited source habitat and occurrence in analysis area.
	2—Broad Elevation, Old Forest	American Three-toed Woodpecker	*Picoides tridactylus*	S	Dependent mostly on disturbance events, such as fire or insect infestation. Species documented and source habitat in analysis area.
		Black-backed Woodpecker	*Picoides arcticus*	S/MIS	Species documented and source habitat in analysis area.
		Boreal Owl	*Aegolius funereus*	S	Species documented and source habitat occurs, mostly at higher elevations, in analysis area.
		Dusky Grouse (summer)	*Dendragapus obscurus*	F	Species documented and source habitat in analysis area.
		Fisher	*Martes pennanti*	S	Species documented and source habitat in analysis area.
		Flammulated Owl	*Otus flammeolus*	S	Species documented and source habitat in analysis area.
		Great Gray Owl	*Strix nebulosa*	S	Species documented and source habitat in analysis area.
		Northern Goshawk (summer)	*Accipiter gentilis*	S	Species documented and source habitat in analysis area.
		Pileated Woodpecker	*Dryocopus pileatus*	MIS	Species documented and source habitat in analysis area.
		Silver-haired bat	*Lasionycteris noctivagans*	F	Species documented and source habitat in analysis area.
	3—Forest Mosaic	Canada Lynx	*Lynx canadensis*	T	Rare. Modeled source habitat in Canada lynx analysis area.
		Mountain Quail	*Oreortyx pictus*	S	Source habitat in analysis area, rare species occurrence.

Suite	Habitat Family	Focal Species Considered in this Analysis	Scientific Name	Species Status [1]	Occurrence in the Analysis Area
		Wolverine	*Gulo*	PT	Species documented and high-quality habitat in the wolverine analysis area. Potential denning habitat (i.e., high elevation cirques, talus slopes, and forests) present.
Combination of Forest & Rangeland	5—Forest & Range Mosaic	Gray Wolf	*Canis lupus*	S	Species (known packs) documented and habitat in analysis area.
		Peregrine Falcon	*Falco peregrinus*	S	Species documented and known habitat, including nesting sites on the BNF, within analysis area.
		Rocky Mountain Bighorn Sheep	*Ovis canadensis*	S/BG	Species documented (known herds in FCRNRW) and winter and summer habitat in the Rocky Mountain bighorn sheep analysis area.
		Rocky Mountain Elk	*Cervus canadensis*	BG	Source habitat present throughout analysis area.
	7—Forests, Woodlands, & Sagebrush (Not addressed in the analysis)	Spotted Bat (Species not analyzed)	*Euderma maculatum*	S	Some suitable habitat in analysis area, but not expected to occur. Rare.
		Townsend's Big-eared Bat	*Corynorhinus townsendii*	S	Species documented and suitable habitat in analysis area.
		Northern Idaho Ground Squirrel	*Urocitellus brunneus*	T	Modeled source habitat in the NIDGS analysis area. Historical occurrences.
		Monarch butterfly	*Danaus plexippus*	C	Some suitable habitats below 5,600 feet amsl in the analysis area, but not expected to occur. Rare.
Riverine & Non-riverine Riparian & Wetland	13—Riverine Riparian & Wetland (Not addressed in the analysis)	Bald Eagle	*Haliaeetus leucocephalus*	S	Species documented and known habitat, including nesting sites, within analysis area.
		Columbia Spotted Frog	*Rana luteiventris*	S	Source habitat occurs in riparian & wetland areas. Species documented and source habitat in analysis area.
		Harlequin Duck (Species not analyzed)	*Histrionicus*	S	Source habitat present in some low gradient sections of analysis area. Rare. No known observations in analysis area.
		Yellow-billed Cuckoo (Species not analyzed)	*Coccyzus americanus*	T	The analysis area is outside of USFWS modeled habitat and known occurrences.

Source: Forest Service 2020e.

[1]Species Status (USFWS 2019a): T = ESA Threatened; PT = Proposed ESA Threatened; C = ESA Candidate; S = Region 4 Sensitive; MIS = PNF and BNF MIS, F = Focal Species, BG = Big Game, R4 = Region 4.

Canada Lynx

The Final Rule to list the Canada lynx as threatened under ESA by the USFWS was issued in March 2000 (65 Federal Register 16052). In 2000, the Canada Lynx Conservation Assessment and Strategy (LCAS) (Ruediger et al. 2000) was developed to provide a consistent and effective approach to conserve Canada lynx on federal lands. The PNF and BNF amended their existing plans in 2003 to be consistent with the LCAS.

Critical habitat for Canada lynx was designated by the USFWS on February 25, 2009 (74 Federal Register 8616) and revised on September 12, 2014 (79 Federal Register 54781). Critical habitat for Canada lynx has been designated by the USFWS in five core units: Unit 1 in Maine, Unit 2 in Minnesota, Unit 3 in Montana and Idaho, Unit 4 in Washington, and Unit 5 in Wyoming and Montana (74 Federal Register 8616). The Idaho portion of Unit 3 is located outside the Canada lynx analysis area for the SGP in the extreme eastern border of Boundary County in the northern "panhandle" region of the state, approximately 280 miles away. No Critical Habitat has been designated on the PNF or BNF and core, secondary, and peripheral areas delineated for the Recovery Outline for the Contiguous U.S. Distinct Population Segment of Canada Lynx describe the forests as a secondary area (USFWS 2005). The LCAS updated in 2013 (Interagency Lynx Biology Team 2013) also describes the PNF and BNF as secondary areas. Secondary areas are those areas with historical records of Canada lynx presence, but fewer than in core areas, and no recent documentation of presence or reproduction; or areas with historical records of Canada lynx, but the current status is unknown due to a lack of recent surveys to document the presence of Canada lynx and/or reproduction (Interagency Lynx Biology Team 2013; USFWS 2005).

Canada lynx occur throughout Canada and Alaska, in the northern and central Rocky Mountains, and in the extreme northeastern and north-central U.S. Most Canada lynx occurrences in the western U.S. are associated with mixed-conifer forest with the highest percentage (77 percent) occurring at the 4,921- to 6,562-foot elevation zone (McKelvey et al. 2000). Subalpine fir, Engelmann spruce, and lodgepole pine forest cover types in cold, moist PVGs provide the predominant habitat type for Canada lynx (Aubry et al. 2000). Dry forest cover types, such as ponderosa pine forest, are not expected to provide Canada lynx habitat. Typical prey species include snowshoe hares, squirrel species, grouse species, porcupines, beaver, small rodents, and even deer species opportunistically (Interagency Lynx Biology Team 2013). However, because snowshoe hare are the primary prey of Canada lynx throughout their range, Canada lynx distribution is closely associated with snowshoe hare distribution. Enhancing and protecting snowshoe hare habitat is a management priority in secondary areas (Interagency Lynx Biology Team 2013). Canada lynx typically use boreal forest landscapes with a mosaic of successional forest types that contain the following features (USFWS 2009):

- Presence of snowshoe hare and their preferred habitat conditions, which include dense understories of young trees, shrubs, or overhanging boughs that protrude above the snow, and mature multistoried stands with conifer boughs touching the snow surface.
- Winter snow conditions that are generally deep and fluffy for extended periods of time.
- Sites for denning that have abundant, coarse, woody debris, such as downed trees and root wads.
- Matrix habitat (e.g., hardwood forest, dry forest, non-forest, or other habitat types that do not support snowshoe hares) that occurs between patches of boreal forest in close juxtaposition (at the

scale of a Canada lynx home range) that Canada lynx are likely to travel through while accessing patches of boreal forest in a home range.

Canada lynx habitat was mapped on the PNF and BNF and relies on specific habitat types in specific structural stages within certain PVGs, which is unlike other species models that only use PVGs with structural conditions (e.g., tree size class and canopy cover). The PNF and BNF use two classifications for Canada lynx habitat in LAUs: "existing suitable habitat" and "source habitat capacity." "Existing suitable habitat" meets forest criteria that is currently suitable for use by Canada lynx and is defined by parameters such as post-burn habitat (defined to better represent horizontal cover in snowshoe hare habitat), road density, and plantation age. Habitat modeling parameters are based on previously defined relationships among vegetation, snowshoe hare, and Canada lynx. "Source habitat capacity" has the potential to develop into suitable Canada lynx habitat in the future. The source habitat capacity model predicts the potential for overall Canada lynx habitat capacity, including primary (breeding) and secondary habitat. It defines acreages of vegetative communities (in selected PVGs), which include preferred habitat types such as Engelmann spruce, lodgepole pine, and mixed-conifer types with Douglas fir and subalpine fir. However, the Canada lynx habitat models are limited by inadequate data for various habitat features (e.g., tree size class, tree canopy cover, dead and downed wood, snag density, and understory cover), and overestimate existing and source habitat capacity acreages as a result. The PNF and BNF maintain the Canada lynx habitat classes as a spatial database for analysis using Geographic Information Systems. **Table 3.13-2** summarizes the areas of existing and unsuitable Canada lynx habitat in each LAU, and whether the LAU currently meets the Forest standard for suitable habitat.

Table 3.13-2 Canada Lynx Habitat Acreage by Canada Lynx Analysis Unit in the Canada Lynx Analysis Area

LAU	Total LAU Acreage (Acreage Within Analysis Area)	Existing Suitable Habitat	% of Unsuitable Habitat	Currently Meets Standard TEST15 (<30% Unsuitable)
Stibnite	81,895	23,880	39.8	No
Yellowpine	48,074	9,107	70.5	No
Burntlog	51,857	15,507	55.0	No
Warm Lake	67,282	1,887	94.1	No
Landmark	44,494	7,560	78.5	No
East Mountain	109,445	25,254	12.4	Yes
West Mountain	95,838	18,953	1.5	Yes
Total	**498,885** [1]	**102,147**	**N/A**	**N/A**

Source: Forest Service 2018a.
[1]Acreage based only on NFS lands. Canada lynx analysis area (656,493 acres) includes NFS and non-NFS lands.

There are approximately 102,147 acres of existing suitable habitat for Canada lynx in the PNF and BNF LAUs listed above (i.e., Canada lynx analysis area), and 220,260 acres of source habitat capacity (i.e., extent of PVGs or cover types capable of developing source habitat conditions at some point in time and within some defined area [Forest Service 2003a, 2010a]) for the PNF and BNF LAUs. **Figure 3.13-2** shows existing suitable the current habitat for Canada lynx. Five of the seven LAUs are currently not

meeting Forest TEPC Standard 15 (TEST15); this indicates the percentage of unsuitable habitat in the LAUs is higher than the 30 percent threshold. Wildfires account for the majority of unsuitable habitat in these LAUs (Forest Service 2018a). Current and historic status of Canada lynx in Idaho and the latest scientific literature predict rare occurrence of Canada lynx in the PNF and BNF. In Idaho, the total population number is unknown, but is expected to be low. Surveys conducted in 2007 using the National Lynx Protocol detected Canada lynx in the BNF but not the PNF. The National Lynx Detection Survey was conducted from 1999 to 2003 in forests with potential to have Canada lynx, including the BNF. A survey grid was established in the Cascade Ranger District in the Burntlog and Yellowpine LAUs from 2001 to 2003. No Canada lynx were detected during those efforts (Forest Service 2018a).

Although there are no corridors or transition habitat in the SGP area, the Forest Service has drafted "lynx linkage areas" because of the importance of habitat connectivity for forest carnivores (Claar et al. 2004). As defined by Claar et al. (2004), Canada lynx linkage areas are, "Habitat that provides landscape connectivity between blocks of Canada lynx habitat. Linkage areas occur both within and between geographic areas where blocks of Canada lynx habitat are separated by intervening areas of non-lynx habitat such as basins, valleys, agricultural lands, or where Canada lynx habitat naturally narrows between blocks. Connectivity provided by linkage areas can be degraded or severed by human infrastructure such as high-use highways, subdivisions or other developments." Linkage areas for Canada lynx have been estimated to occur North to South across Warm Lake Road (CR 10-579) and East to West across the SFSR (and likely also Johnson Creek Road (CR-10-413), the Stibnite Road portion of the McCall-Stibnite Road (CR 50-412), and the Burnt Log Road (FR 447).

The few historical observations on the BNF Cascade Ranger District indicate that Canada lynx can occur on the PNF and BNF. Surveys conducted between 1999 and 2003 using the National Lynx Protocol detected a single Canada lynx on the BNF at two locations in the Bear Valley area approximately 18 miles southeast of the Canada lynx analysis area (J. Foust, District Wildlife Biologist, BNF, personal communication) but not on the PNF (Interagency Lynx Biology Team 2013). As part of the National Lynx Detection Survey, the Forest Service conducted Canada lynx detection surveys on the BNF Cascade Ranger District between 2001 and 2003 (Forest Service 2001, 2002, 2003b), and no Canada lynx were detected during these hair snag/DNA surveys. The closest confirmed Canada lynx detection resulting from formal surveys from the National Survey Grid was on the Lowman Ranger District (BNF) in 1999, approximately 60 miles south of the Village of Yellow Pine area. The lack of Canada lynx detections from the large body of hair snag and remote camera survey work, both in the Canada lynx analysis area and in the larger context of the surrounding ranger districts, suggests Canada lynx is rare in the PNF and BNF, and detections would be more likely to result from a dispersing individual rather than a resident (Forest Service 2018a). Although Canada lynx denning habitat exists on the BNF and is predicted to exist in the future across the PNF, there are no verified Canada lynx dens or confirmed evidence of breeding. At present, occurrence of Canada lynx in the Canada lynx analysis area is speculative.

Northern Idaho Ground Squirrel

In 2012, NIDGS was identified as a distinct species (Hoisington-Lopez et al. 2012). NIDGS is now recognized as *Urocitellus brunneus*, while its former subspecies, southern Idaho ground squirrel, is recognized as *Urocitellus endemicus*. The USFWS revised the taxonomy of the species under ESA rulemaking in Federal Register (80 Federal Register 35860).

NIDGS was listed as a threatened species under the ESA, as amended (61 Federal Register 7596). The Final Rule for this listing (65 Federal Register 17779) is dated April 5, 2000. The Recovery Plan for the Northern Idaho Ground Squirrel (Recovery Plan) was completed in 2003 (USFWS 2003). The plan summarizes objectives, criteria, and strategies for recovery of the species. The goal of the Recovery Plan is to increase population size and establish a sufficient number of viable metapopulations so that the species can be delisted. The number of metapopulations considered to be sufficient for recovery is identified as 10, with each consisting of more than 500 individuals for 5 consecutive years.

A 5-year review of the current ESA classification for NIDGS was completed in 2017 (81 Federal Register 7571-7573). Although numerous conservation actions have been implemented or scheduled by the Forest Service, IDFG, and USGS since the last 5-year review, the recent review determined that the threats identified in the previous status review remained the same, particularly the primary threat of loss of suitable habitat, resulting from meadow invasion by conifers. Development of private lands within their limited range also continues to be a threat. The USFWS has initiated the Recovery Planning and Implementation process for NIDGS.

NIDGS are rare, endemic (i.e., native and restricted to a certain area), small mammals whose current known distribution is limited to a disjunct population in an approximately 2,965-acre area of Valley County and another larger, approximately 265,143-acre, area in Adams County in west-central Idaho. It has one of the smallest ranges of all North American land mammals. In this range, NIDGS occur at approximately 60 sites with an elevation range of 3,445 to 7,546 feet above mean sea level. Occupied sites are variable in size (2.5 to greater than 247 acres) and NDIGS density (Wagner and Evans-Mack 2017). Typical habitat includes dry montane meadows or open scablands surrounded by ponderosa pine or Douglas-fir forest (Suronen and Newingham 2013). In March or April, squirrels emerge from their underground burrows to mate and begin their brief aboveground activity period (Yensen 1991). Hibernation starts again in July or early August (Goldberg et al. 2017).

Approximately 2,042 acres of occupied habitat and 60,450 acres of modeled suitable habitat occur on the PNF. The largest amount of both habitat types occurs in the Brownlee Watershed, near Bear, Idaho, which is well north and west of the NIDGS analysis area. IDFG monitoring data from 2017 documented 308 individuals at 29 colony sites on PNF lands. The closest occupied site to the NIDGS analysis area is located approximately 11 miles south of Cascade, Idaho and approximately 10 miles south of the NIDGS analysis area (Wagner and Evans-Mack 2017). Within the NIDGS analysis area, there is no occupied habitat but there are approximately 17,917 acres of modeled suitable habitat, primarily northeast of Warm Lake, around Horsethief Reservoir, and in Long Valley (**Figure 3.13-3**).

For the SGP, in 2018, a survey was conducted in the modeled habitat in Scott Valley (June 19 to July 16) and along the Idaho Power Company transmission line alignment in Trout Creek (July 10 to July 12) (Yensen and Tarifa 2018), and private lands where access was obtained (between June 4 to July 17, 2019) (Yensen and Tarifa 2019). Over the entire geographic extent of 2018 and 2019 surveys, which cover almost the entire disturbance footprint for the SGP, there were no observations of NIDGS or signs of activity. However, during the surveys, areas with suitable habitat were identified for future surveys (Yensen and Tarifa 2018, 2019). Several of the large areas of suitable habitat include polygons at the Cascade Switching Station, near the SGLF and Scott Valley Substation, east of the Cascade Switching Station, and north of the Cascade Switching Station (Yensen 2019). These areas are shown in more detail

on **Figure 3.13-3**. NIDGS did occur historically in the Warm Lake area, but limited surveys have been conducted (Yensen and Tarifa 2019). Although no NIDGS or signs of their activity were observed at sites during the surveys, there is a small possibility that NIDGS may occur in the future at suitable sites. As described in **Section 2.4.9**, site checks and formal surveys would be conducted, as needed, prior to ground-disturbing activities in suitable habitat.

Wolverine

In February 2013, the USFWS published a proposed rule to list the DPS of the North American wolverine in the contiguous U.S. as a threatened species, citing the primary threat to the species as loss of habitat and range as a result of climate change (78 Federal Register 7863). This decision was subsequently withdrawn. On April 4, 2016, the U.S. District Court of Montana vacated the USFWS's withdrawal of its Proposed Rule (Case 9:14-CV-00246-DLC, Document 108; 81 Federal Register 71670). At the time of the initial DEIS publication in August 2020 for this Project, the proposed listing was under review and pending a final decision on the status of the species by the USFWS. Therefore, the Forest Service was directed to analyze the species as "proposed-threatened." Additionally, because wolverines were a proposed species, rather than listed, there was no Critical Habitat designated for the species. On October 8, 2020, the USFWS determined that the best available science showed that the factors affecting wolverine populations are not as significant as believed in 2013 when the USFWS proposed to list the wolverine found in the contiguous U.S. as threatened. Therefore, this species did not meet the definition of threatened or endangered under the ESA and the USFWS withdrew its listing proposal. However, on May 26, 2022, the U.S. District Court of Montana vacated the USFWS's 2020 decision to withdraw the 2013 proposed rule to list the wolverine as a threatened distinct population segment in the contiguous U.S. Therefore, for this analysis, the wolverine reverts back to its proposed for listing status (i.e., proposed-threatened) under the 2013 proposed rule until November 2023. On November 29, 2023, the USFWS published a final rule to list the distinct population segment of the North American wolverine in the contiguous U.S. as a threatened species under the ESA. The USFWS also issued an interim rule under ESA section 4(d) tailored to the wolverine's conservation needs that exempts take related to research activities, take incidental to lawful trapping for other species, and take resulting from forest management activities associated with wildfire risk reduction in the contiguous U.S. The USFWS cited current and increasing impacts of climate change and associated habitat degradation and fragmentation as the primary listing rationale.

The North American wolverine is the largest terrestrial member of the family Mustelidae (e.g., weasels, badgers, otters, ferrets, martens, minks, and wolverines, among others), with adult males weighing 26 to 40 pounds and adult females weighing 17 to 26 pounds (Banci 1994). Wolverines are opportunistic feeders, consuming a variety of foods depending on availability. They primarily scavenge carrion, but also prey on small animals and birds and eat fruits, berries, and insects (Banci 1994). They have an excellent sense of smell, enabling them to find food beneath deep snow, and can eat frozen meat and crush bones of large prey including deer, elk, and moose.

Wolverines are circumboreal (i.e., generally occurring throughout the northern portion of the northern hemisphere) in distribution, occurring in Europe, Asia, and North America. In western North America, the wolverine historically occurred in Alaska, Washington, Oregon, California, Nevada, Colorado, Utah, Montana, Wyoming, Idaho, and Canada. Wolverine habitat includes alpine tundra and all subalpine and

montane forests (Wisdom et al. 2000). In the PNF and BNF, wolverines appear to strongly select for forest edges and concave landscapes, such as valleys. Wolverine distribution in Idaho is strongly correlated with snow, cold temperatures, high elevation montane habitats and rugged terrain, including talus slopes (Inman 2013). Spring snow cover (April 24 to May 15) is the best overall predictor of wolverine occupancy and appropriate levels of snow cover during the denning period is essential for successful wolverine reproduction. Wolverines have an extended mating period (from May to August) and give birth to kits in February to mid-March (IDFG 2014). Dens tend to be in areas of high structural diversity with logs and large woody debris, large boulders, and deep snow (Inman 2013). Den sites are usually located amongst rocks or root wads, within hollow logs, under fallen trees, or in dense vegetation (IDFG 2014). Wolverine summer habitat in Idaho is associated with high-elevation whitebark pine communities with steep slopes and coarse talus (IDFG 2014). The wolverine analysis area includes suitable habitat for the wolverine. The largest amount of high-quality wolverine habitat exists in the SFSR watershed (approximately 231,659 acres), which includes areas adjacent to the FCRNRW.

Although new evidence suggests more social interaction, wolverines tend to be solitary and primarily nocturnal. They are active year-round and will travel during daylight hours. Wolverines have large spatial requirements, with home ranges varying in size depending on sex, age, availability of food, and differences in habitat (Banci 1994). Male and female home ranges in central Idaho are the largest reported for the species (Copeland 1996). A winter recreation study evaluated home range areas and estimated male minimum and maximum home range size at 154 and 833 square miles, respectively, with female ranges estimated from 49 to 162 square miles (Heinemeyer et al. 2017). Food availability and dispersion, spatial configurations of conspecifics (i.e., members of the same species), habitat, and topography also are suggested influences for wolverine home range selection and size (Banci 1994; Copeland 1996; Hornocker and Hash 1981). According to IDFG (2014), wolverines also are territorial, which influences their home ranges, typically reducing its overall size depending on prey availability and the local population of wolverines. While male and female ranges can overlap, males avoid other male territories and females avoid other female territories. This is important because territoriality constraints define how wolverines can react to changes in habitat quality or displacement from occupied habitat.

Wolverines naturally occur at low densities and have low reproductive rates. Wolverine populations in the Rocky Mountains are small (Schwartz et al. 2009). Although there are estimates for population carrying capacity in Idaho, there is currently no valid population estimate (IDFG 2014).

The SGP area is located within two Wolverine Priority Conservation Areas, Tier 1 Game Management Units (GMUs) 25 and 26, as defined by the Management Plan for Conservation of Wolverines in Idaho, 2014-2019 (IDFG 2014). Tier 1 are the highest scoring GMUs based on potential wolverine use, cumulative threats, and amount of unprotected habitat.

Historically, wolverines have been documented on the PNF and BNF within the wolverine analysis area (**Table 3.13-3**). As shown on **Table 3.13-3** several of the observations include the same individuals. In 2010, the PNF, BNF, and Sawtooth National Forest collaborated with the Rocky Mountain Research Station, Round River Conservation Studies, IDFG, and other governmental and non-governmental organizations to assess wolverine populations and evaluate potential impacts to the species from winter recreation. The study was titled Wolverine-Winter Recreation Research Project: Investigating the Interactions Between Wolverines and Winter Recreation, and research efforts simultaneously and

intensively monitored both wolverine and winter recreation use using global positioning system monitoring. The final report was released in December 2017 (Heinemeyer et al. 2017). The study results were updated in 2019 (Heinemeyer et al. 2019). Six years of trapping efforts (2010-2015) in the northern Boise, McCall, and Payette study areas confirmed 14 individual wolverines: eight females (some of which were denning) and six males. The PNF and BNF contain known breeding habitat, and five den sites for four individuals (females) have been confirmed since 2010.

In addition, the wolverines documented from Midas Gold's remote camera study, listed in **Table 3.13-3** as Garcia and Associates 2013 and 2014, were identified as only male or female, when in fact genetics data and physical characteristics observable in remote camera photos of those individuals identified at least two different males and one female. Thus, at least 16 individual wolverines were identified in or adjacent to the wolverine analysis area from 2010 to 2015. More importantly, four of these wolverines were documented within the SGP area, including a resident reproductive female, which likely indicates a den in the general area; although one has not been documented. The nearest documented den location is found approximately 12 miles southeast of the SGP between Sheepherder Lake and the Deadwood Summit area (J. Foust, District Wildlife Biologist, BNF, personal communication).

Most relevant of subsequently available data were results from the Western States Wolverine Conservation Project's occupancy survey in the winter of 2016 to 2017, in which 200 remote camera stations were deployed in wolverine habitat across four states (Lukacs et al. 2020). Two camera stations were within the wolverine analysis area, and another five were within the Payette and northern Boise study areas of the winter recreation study. Notable results from this study were (1) the continued documentation of a male and female in their presumed territories north and south of Landmark, Idaho within and adjacent to the wolverine analysis area, and (2) detection of a female offspring of one of the females from the winter recreation study (Evans Mack 2018).

Table 3.13-3 Wolverine Documentation, including DNA Confirmation, Within or Adjacent to the Wolverine Analysis Area

Study/Observation[1]	Dates	Animal ID	Sex/Age/ Status	Trap Type/Observation
Heinemeyer et al. 2017	1/30/2010-3/31/2010	F1.2010	Female/Denning	Log trap
Heinemeyer et al. 2017	1/15/2012-3/10/2012	F1.2012	Female/Not denning	Log trap
Heinemeyer et al. 2017	1/14/2014-4/19/2014	F10.2014	Female/Denning	Log trap
Heinemeyer et al. 2017	1/30/2010-3/21/2010	F2.2010	Female/Denning	Log trap
Heinemeyer et al. 2017	1/25/2011-4/10/2011	F2.2011	Female/Not denning	Log trap
Heinemeyer et al. 2017	2/20/2010-4/3/2010	F3.2010	Female/Denning	Log trap
Heinemeyer et al. 2017	1/4/2014-3/24/2014	F3.2014	Female/Not denning	Log trap
Heinemeyer et al. 2017	1/22/2011-3/16/2011	F4.2011	Female/Not denning	Log trap
Heinemeyer et al. 2017	1/30/2011-4/2/2011	F5.2011	Female/Denning	Log trap
Heinemeyer et al. 2017	2/20/2010-3/10/2010	M1.2010	Male	Log trap

Study/Observation[1]	Dates	Animal ID	Sex/Age/ Status	Trap Type/Observation
Heinemeyer et al. 2017	1/18/2011-3/15/2011	M1.2011	Male	Log trap
Heinemeyer et al. 2017	1/25/2014-4/13/2014	M1.2014	Male	Log trap
Heinemeyer et al. 2017	1/11/2014-5/27/2014	M12.2014	Male	Log trap
Heinemeyer et al. 2017	2/5/2010-4/20/2010	M2.2010	Male	Log trap
Heinemeyer et al. 2017	2/10/2011-4/3/2011	M2.2011	Male	Log trap
Heinemeyer et al. 2017	2/11/2010-4/26/2010	M3.2010	Male	Log trap
IDFG	1/12/2007	N/A	Unknown	Sample - Incidental Observation
IDFG	9/1/1983	N/A	Unknown	Seen - Incidental Observation
IDFG	6/12/1982	N/A	Unknown	Seen - Incidental Observation
IDFG	5/14/2009	N/A	Unknown	Seen - Incidental Observation
IDFG	4/12/1994	N/A	Male	Hand - Inventory/Targeted Survey
IDFG	1/15/2014	N/A	Unknown	Hand - Incidental Observation
IDFG	1/18/2013	N/A	Female	Photographed - Remote Camera Station
IDFG	3/3/2015	N/A	Female	Photographed - Remote Camera Station
IDFG	3/4/2015	N/A	Unknown	Photographed - Remote Camera Station
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	N/A	Camera Observation
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	N/A	Camera Observation
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	N/A	Camera Observation
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	N/A	Camera Observation
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	Male	Gun Brush Hair Snag
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	Female	Gun Brush Hair Snag
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	N/A	Gun Brush Hair Snag
Garcia and Associates 2013	2/1/2013-3/1/2013	N/A	N/A	Gun Brush Hair Snag
Garcia and Associates 2014	1/19/2014-3/19/2014	N/A	Male	Camera Observation; Gun Brush Hair Snag
Garcia and Associates 2014	1/19/2014-3/19/2014	N/A	Male	Camera Observation; Gun Brush Hair Snag

[1]Results from the Lukacs et al. 2020 study are not included in **Table 3.13-3** as the specific details are not included in the final report. Instead, a general description of the survey results from 2016 and 2017 are included in the preceding paragraph.
Source: Forest Service 2020e.

Modeled persistent spring snow cover was utilized (Heinemeyer et al. 2017) (**Table 3.13-4**) to describe existing habitat for wolverines. Persistent spring snow cover modeling results largely represent female breeding habitat, and therefore may not account for movements of wolverine at different times of the year within the wolverine analysis area, or their use of varying habitat types.

Table 3.13-4 Persistent Snow Cover in the Wolverine Analysis Area

Snow Cover Years	Area (acres)
1	57,705
2	51,566
3	53,807
4	77,266
5	50,684
6	32,415
7	12,340

Source: Heinemeyer et al. 2017.

Figure 3.13-4 shows the distribution of persistent late spring (i.e., April 24 to May 15) snow cover in the wolverine analysis area as modeled for the northern hemisphere from 2009 through 2015 (Heinemeyer et al. 2017). The model uses the number of years (out of seven) in which snow cover was present in the spring in selected terrestrial pixels (very small, mapped areas).

This spring timeframe generally corresponds to the period of wolverine den abandonment. The overall wolverine analysis area includes a variety of habitats, including large areas that would typically not have persistent spring snow cover (i.e., Cascade Lake and Warm Lake Road). These are areas where wolverines are expected to travel through at different times of the year. Most dens and associated breeding habitat have been located in areas that were snow covered for 3 to 7 years. Hence, higher elevations on the eastern side of the wolverine analysis area are more likely to have persistent snow, and therefore higher quality habitat, in more years, compared to western portions of the wolverine analysis area. This has been confirmed by regular documentation of individuals using the area and predicted winter ranges based on global positioning system locations of collared animals.

Monarch Butterfly

The monarch butterfly is a candidate for listing under the ESA with a wide range across the U.S. (85 Federal Register 81813). In the west each spring, monarchs migrate to the north and east from coastal California toward the Rocky Mountains and Pacific Northwest (USFWS 2020a). This migration may span several generations of monarchs and the Project vicinity is considered part of the species' summer breeding range. While seasonally occupying the area, monarchs often remain near water resources (particularly in arid climates) and are largely dependent on milkweed (*Asclepias spp.*) for reproduction. Western monarchs migrate back to coastal California each fall to overwinter. These populations overwinter in coastal groves of blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*) (USFWS 2020a).

Range-wide, limited monitoring of the monarch butterfly began in the 1980's, although large-scale yearly assessments did not begin until 1997. Since 1997, population counts have generally been declining every year (IDFG 2017a). The primary threats impacting monarchs are habitat loss and fragmentation, loss of milkweed, and intensified weather events that impact monarch populations. Surveys for the monarch butterfly have historically focused on locations of milkweed. Milkweed typically occurs in non-forested openings along waterways and may also occur in roadside ditches, agricultural fields, and pastures. Monarch and milkweed suitability models in Idaho show the predicted suitability for milkweed species and monarch butterflies on the PNF in the vicinity of the SGP to be low based on 36 variables such as soils, topography, climate, and distance to water (Svancara et al. 2019). Additional suitability models have also been published by the Xerces society (Xerces Society for Invertebrate Conservation 2018). Areas mapped as 'Low Suitability' are typically excluded from project analysis. Floral resources used by monarch butterflies for migration can occur in a broader range of habitats and are not restricted to non-forested vegetation along waterways.

Existing habitat for monarchs on the PNF occurs primarily on the Council and Weiser Ranger Districts, which is in the southern portion of the PNF and west of Cascade Reservoir, along waterways and where soils are wet, such as wet meadows and ditches. Monarchs only breed where milkweed is present, but they depend on the nectar from various floral resources during migration. It is suspected that monarch presence on the PNF is more closely associated with migration than with breeding, but more data collection and habitat assessment is needed.

In this region of Idaho, monarch butterflies are generally limited to elevations at or below 5,600 feet amsl (**Figure 3.13-1**) and most milkweeds are in the southern portion of the state between Boise and Twin Falls along the Snake River or in the panhandle portion of the state (Svancara et al. 2019). Surveys have not occurred in the wildlife analysis area for this species; however, according to the USFWS Monarch Conservation Database, only one acre of milkweed with 21 individual plants has been mapped in Valley County, Idaho where the SGP occurs (USFWS 2020b). Therefore, while monarchs may occur during the summer and early fall in the wildlife analysis area below 5,600 feet amsl within suitable vegetation communities, the probability is low.

3.13.4.3 Focal Species, including Region 4 Sensitive Species and Management indicator Species

Many of the focal species selected for analysis for the SGP also are Region 4 Sensitive species. Those species are designated by Forest Service Regional Foresters for specific regions or forests. There are 16 Regional Forester Sensitive Species (sensitive mammals, birds, and reptiles/amphibians) from the Intermountain Region (Region 4 of the Forest Service) included in this analysis (**Table 3.13-1**).

The following species (R4 Sensitive, MIS, focal species, or big game species) (**Table 3.13-1**) determined to have suitable habitat and documented occurrence or are assumed to occur in the wildlife analysis area are discussed below. Additional species considered but excluded from this analysis due to the wildlife analysis area being outside of the species range or lack of modeled habitat include Lazuli bunting, spotted bat, Harlequin duck, and yellow-billed cuckoo.

Habitat Family 1 – Low-Elevation, Old Forest

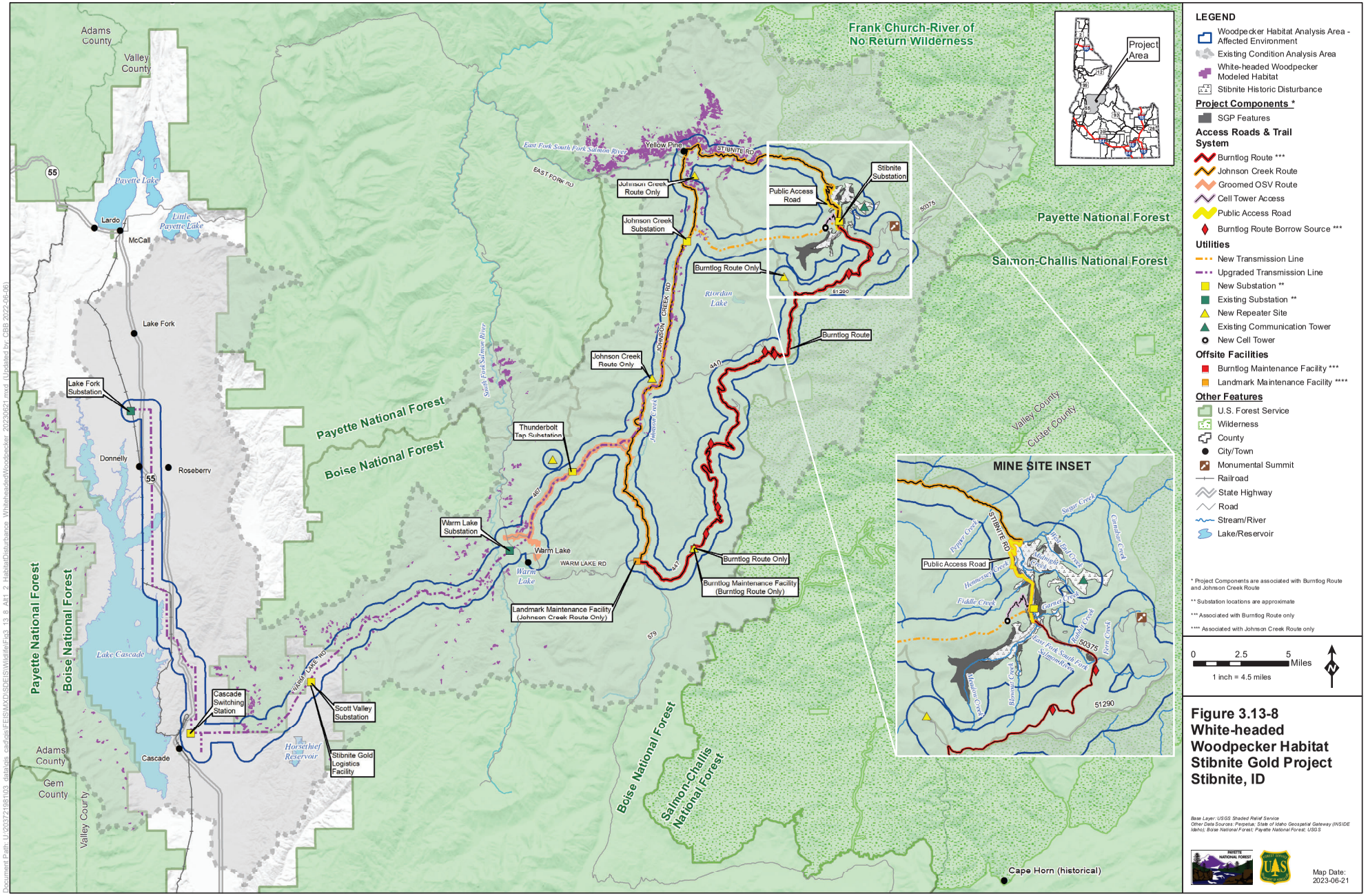
Family 1 includes wildlife species associated with low elevation, old forest vegetation types and has been identified as a habitat family of greatest conservation concern, due to widespread and substantial declines in habitat quantity across their range (Wisdom et al. 2000).

Family 1 wildlife species depend on single-story, and to a lesser extent, multi-story, lower elevation old forest stands as source habitats. Family 1 source habitat occurs in large tree, low canopy cover conditions in PVGs 1, 2, 3, and 5, and in those habitat types of PVG 6 where ponderosa pine is a major seral component. Special features of this source habitat are large-diameter live trees and snags (Wisdom et al. 2000). Historically, these habitat types were maintained in a relatively open condition by frequent, nonlethal fire.

White-headed woodpecker. The white-headed woodpecker is a regional endemic species of the Interior Northwest and may be particularly vulnerable to environmental change because it occurs in limited distribution, with narrow habitat requirements in dry conifer forests. The white-headed woodpecker is closely tied to mature ponderosa pine forests, with live and dead ponderosa pine trees greater than (>) 20 inches dbh in open canopy conditions. The white-headed woodpeckers also require heterogeneous (i.e., mixed or varied) landscapes characterized by a mosaic of open- and closed-canopied ponderosa pine forest. Although white-headed woodpeckers have not been documented in the analysis area, they may pass through. They are expected to be uncommon and due to specific breeding habitat requirements, are not expected to breed and nest in the wildlife analysis area. The closest recorded observations are approximately 6 miles north and 16 miles west of the SGP (Forest Service 2017c).

On the PNF and BNF, vegetative communities that may provide source habitat conditions include PVGs 1, 2, 3, 5, and 6 (Nutt et al. 2010). While the drier habitat types in PVGs 3 and 6 can develop cover types with ponderosa pine in the larger size classes and open canopies, these conditions are not found as commonly as in PVGs 1, 2, and 5 across the PNF and BNF. Large diameter snags are an essential habitat feature for white-headed woodpecker. Current breeding habitat on the PNF is concentrated on the west side of the Forest, on the Council and New Meadows Ranger Districts. Approximately 5,070 acres of white-headed woodpecker modeled source habitat occurs in the wildlife analysis area (**Table 3.13-5**; **Figure 3.13-8**).

Lewis's Woodpecker. The Lewis's is closely associated with recent burns and responds favorably to stand-replacing fires (Tobalske 1997), whereas habitat for other Family 1 species is usually maintained by frequent, low-intensity burns that retain large and old-forest habitat. The Lewis's woodpecker is characterized as a 'burn specialist' due to its preference for nesting within burned pine forests. Distribution is closely associated with open ponderosa pine forest in the western U.S. and fire-maintained old-growth ponderosa pine. Suitable habitat conditions include an open canopy, abundant arthropod (e.g., insects and spiders) prey, shrubby understory, and availability of nest cavities and perches. Approximately 4,141 acres of Lewis's woodpecker modeled source habitat occurs in the wildlife analysis area (**Table 3.13-5**; **Figure 3.13-9**).



LEGEND

- Woodpecker Habitat Analysis Area - Affected Environment
- Existing Condition Analysis Area
- White-headed Woodpecker Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***

Utilities

- New Transmission Line
- Upgraded Transmission Line
- New Substation **
- Existing Substation **
- New Repeater Site
- Existing Communication Tower
- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- State Highway
- Road
- Stream/River
- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route

** Substation locations are approximate

*** Associated with Burntlog Route only

**** Associated with Johnson Creek Route only

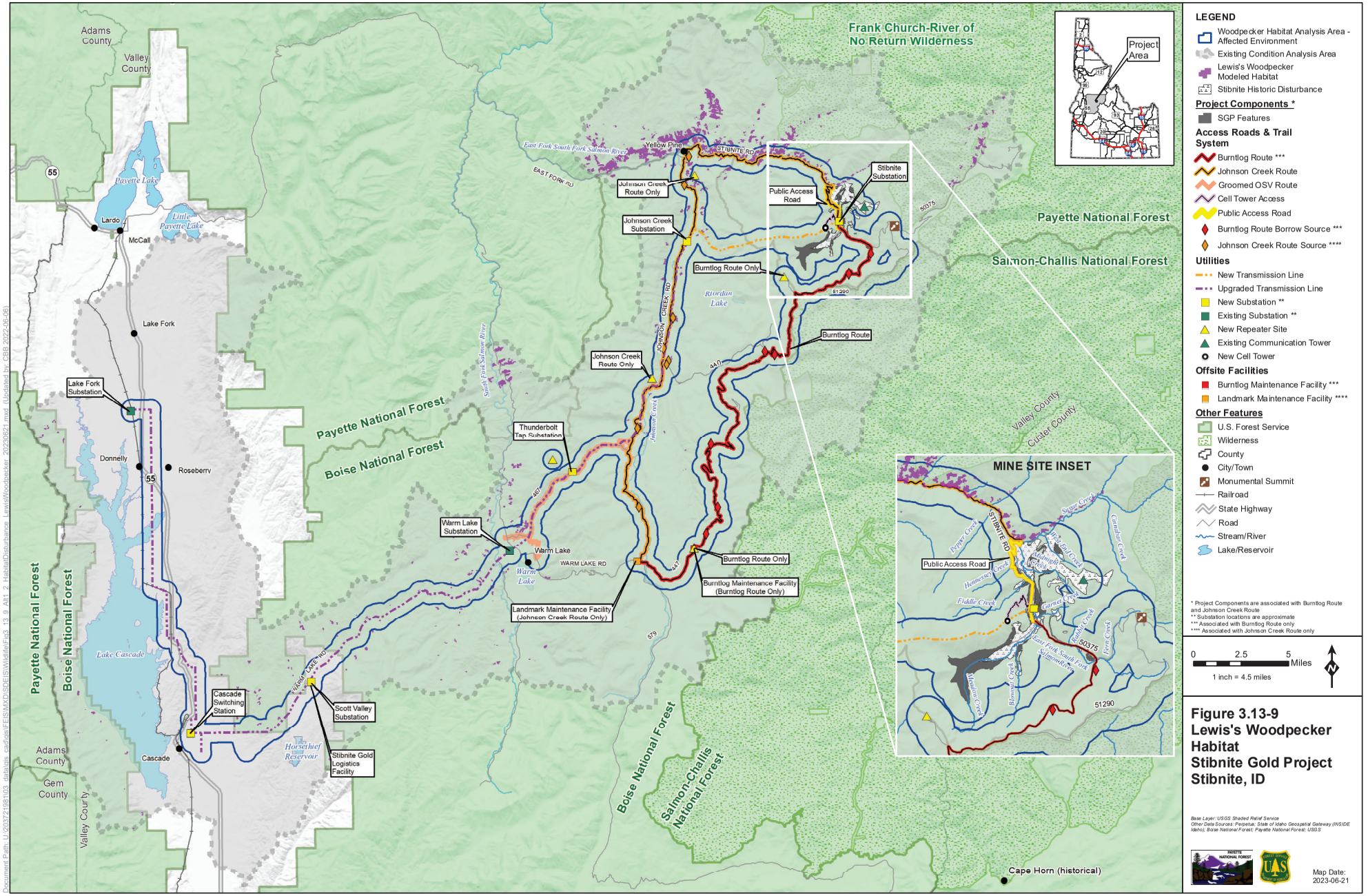
0 2.5 5 Miles

1 inch = 4.5 miles

Figure 3.13-8 White-headed Woodpecker Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21



LEGEND

- Woodpecker Habitat Analysis Area - Affected Environment
- Existing Condition Analysis Area
- Lewis's Woodpecker Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

Utilities

- New Transmission Line
- Upgraded Transmission Line
- New Substation **
- Existing Substation **
- New Repeater Site
- Existing Communication Tower
- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- State Highway
- Road
- Stream/River
- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

0 2.5 5 Miles

1 inch = 4.5 miles

Figure 3.13-9
Lewis's Woodpecker Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

Table 3.13-5 Habitat Family 1 - Modeled Source Habitat in the Wildlife Analysis Area

Subwatershed Name	White-headed Woodpecker (Acres)	Lewis's Woodpecker (Acres)
Bear Creek-SFSR	76	39
Beaver Creek	104	26
Burntlog Creek	7	6
Curtis Creek	167	71
Ditch Creek-Johnson Creek	3	3
Duck Creek-Cascade Reservoir	112	30
Goat Creek-SFSR	305	252
Loosum Creek-East Fork SFSR	1,318	1,000
Lower Big Creek	3	3
Lower Gold Fork River	0.4	0.03
No Mans Creek-East Fork SFSR	1,096	1,225
Pearsol Creek-North Fork Payette River	125	23
Poison Creek-North Fork Payette River	96	24
Porcupine Creek-Johnson Creek	376	236
Profile Creek	133	98
Quartz Creek	564	419
Riordan Creek	23	10
Sheep Creek-Johnson Creek	5	5
Six-bit Creek-SFSR	253	151
Sugar Creek	0	57
Tamarack Creek	0	150
Trapper Creek-Johnson Creek	10	6
Upper Big Creek	213	58
Upper Monumental Creek	0	179
Warm Lake Creek	81	70
Total	**5,070**	**4,141**

Source: Forest Service 2020e.

Habitat Family 2 – Broad Elevation Old Forest

Species in Family 2 use late-seral, multi-, and single-layered stages of the montane community as source habitats (Wisdom et al. 2000). Source habitats for some species also include late-seral stages of the subalpine community or the lower montane community, or both. Source habitat for Family 2 overlaps Family 1; however, it encompasses a broader array of cover types and elevations (Wisdom et al. 2000). Family 2 source habitat occurs primarily in PVGs 3 through 11 (Forest Service 2003a, Appendix E), although some species use lower elevation types. Historical fire regimes in Family 2 vary by PVG but are dominated by mixed severity and lethal regimes (Forest Service 2003a, Appendix A).

Species that comprise Family 2 tend to be habitat generalists that use a wide range of conditions. Many are associated with both the large and medium tree size class forests in moderate- to high-stand canopy conditions. Some Family 2 species can take advantage of PVGs that exhibit uncharacteristically high tree densities and amounts of shade-tolerant tree species that have resulted from fire suppression and/or past management activities. As forest conditions increase in density and shade-tolerant species become more common throughout the landscape (either from suppression of fire or past vegetation management), the quantity and interconnectedness of Family 2 habitat increases.

American (Northern) three-toed woodpecker. The American three-toed woodpecker uses mature to old-growth, recently burned forests, and areas affected by pine bark beetles (Wiggins 2004). Saab et al. (2018) observed that the American three-toed woodpecker diet can consist almost entirely of spruce beetles, and they feed under the bark of freshly killed Engelmann spruce. The three-toed woodpecker is associated with disturbance events such as mountain pine beetle infestations and wildfire events that create areas with high densities of snags and insect prey (Wisdom et al. 2000). Three-toed woodpecker populations typically peak during the first 3 to 5 years after a fire.

Three-toed woodpeckers can utilize some forested conditions that are not within the historical range of variability (HRV) under PVGs 5 and 11. These conditions generally consist of higher tree densities and more complex vegetative structure than what would have developed when stands in these PVGs were experiencing historical disturbance processes. These dense conditions also would make stands more susceptible to insect infestations or stand-replacing wildfire important for disturbance-related species. For PVG 5, when functioning outside HRV, the Medium-High and High tree canopy cover class are included when in the Medium, Large, and Very Large tree size classes. For PVG 11, when functioning outside HRV, the High tree canopy cover class is included when in the Medium, Large, and Very Large tree size classes.

Although three-toed woodpeckers have not been recorded in the wildlife analysis area, and the closest observation in the Forest Service database is approximately 12 miles north of the wildlife analysis area (Forest Service 2017c), the habitat profile and burn history of the area could be attractive to the species, and it is likely they could occur. Approximately 21,675 acres of American three-toed woodpecker modeled source habitat occurs in the wildlife analysis area (**Table 3.13-6**; **Figure 3.13-10**).

Black-backed woodpecker. The black-backed woodpecker uses montane and boreal coniferous forests with standing snags. This species is associated with disturbance events such as mountain pine beetle infestations and wildfire that create areas with high densities of snags and insect prey (Wisdom et al.

2000). They are strongly associated with recently burned forests (often colonizing them within one year after a fire) and excavate nests in snags (Saab et al. 2009).

On the PNF and BNF, vegetative communities that may provide source habitat conditions for black-backed woodpecker include PVGs 8, 9, 10, and 11 in the Medium and Large tree size classes and with moderate or high canopy cover (Nutt et al. 2010). PVG 5 also can provide source habitat when outside of the HRV. It is recommended that Medium (10 to 19.9 inches dbh), Large (20 to 29.9 inches dbh), and Very Large (>30 inches dbh) tree size classes be used to model source habitat for the black-backed woodpecker, both for within and outside the HRV. Mountain pine beetle infestations and/or high intensity fire events are primary recycling agents in these PVGs; both are disturbances associated with woodpecker habitat and population irruptions. Snags are a special habitat feature for woodpeckers and provide nesting and foraging opportunities. Approximately 49,424 acres of black-backed woodpecker modeled source habitat occurs in the analysis area (**Table 3.13-6**; **Figure 3.13-11**).

Dusky grouse (summer). Dusky grouse is a large grouse associated with mountain forest which contain ponderosa and lodgepole pine, aspen, and fir. This species is a forest dwelling grouse native to the Rocky Mountains, a permanent resident on the PNF and BNF, which moves to higher elevations in winter.

While herblands, grasslands, and shrublands (e.g., mountain mahogany, chokecherry, serviceberry, rose, bitterbrush, sagebrush) are commonly described as summer habitat, use of these habitats primarily occurs when they are within or adjacent to forested stands, typically within open ponderosa pine or Douglas fir habitat types (Wisdom et al. 2000). Wisdom et al. (2000) described dusky grouse summer source habitat as contrast habitat that occurs on the interface between forest and openings and generally at lower elevations than in winter. These openings, whether natural or created by harvest or fire, can develop an inter-mix of herb, shrub, and/or seedling vegetation that provides cover and forage for dusky grouse, and yet are still within the larger matrix of a later seral forest. This kind of mosaic commonly occurs in the lower range of tree canopy covers. Approximately 20,509 acres of dusky grouse modeled source habitat occurs in the analysis area (**Table 3.13-6**; **Figure 3.13-12**).

Boreal owl. The boreal owl requires mature conifer forests with moderate to high canopy cover and snags. This species is strongly associated with higher elevation subalpine fir/spruce-fir habitats (>5,000 feet elevation), where their dominant prey food, red-backed vole, is available. Boreal owls, as secondary cavity nesters, also are highly dependent on pileated woodpeckers and northern flickers for nest cavities. Association of foraging and nesting habitat, snags, and downed wood for nest sites and prey habitat, are special habitat features not represented by the model.

This species has been documented in the wildlife analysis area at higher elevations. The nesting/fledging period is April through July (IDFG 2023). The species has been documented, particularly in the mine site, village of Yellow Pine, and Landmark areas, and most likely breeds in the wildlife analysis area. Approximately 28,602 acres of modeled source habitat is present (**Table 3.13-6**; **Figure 3.13-13**).

Table 3.13-6 Habitat Family 2 - Modeled Source Habitat in the Wildlife Analysis Area

Subwatershed Name	American Three-toed Woodpecker (Acres)	Black-backed Woodpecker (Acres)	Dusky Grouse (Acres)	Boreal Owl (Acres)	Fisher (Acres)	Flammulated Owl (Acres)	Great Gray Owl (Acres)	Northern Goshawk (Acres)	Pileated Woodpecker (Acres)	Silver-haired Bat (Acres)
Bear Creek-SFSR	60	623	712	244	369	251	1,010	620	20	1,514
Beaver Creek	233	566	649	368	213	1,249	391	580	21	1,691
Boulder Creek	1,674	2,793	220	1,950	1,895	903	3,762	2,803	86	484
Burntlog Creek	972	2,696	36	1,761	972	34	4,140	2,699	4	2,367
Curtis Creek	2,098	5,704	1,516	2,916	2,011	2,311	4,829	4,875	70	4,347
Ditch Creek-Johnson Creek	1,283	1,850	73	705	1,246	59	4,714	1,850	10	2,535
Duck Creek-Cascade Reservoir	1,567	3,011	1,162	1,119	2,641	2,585	2,866	3,073	211	1,854
Goat Creek-SFSR	426	1,029	1,948	390	763	1,490	2,148	1,166	186	2,298
Headwaters East Fork SFSR	234	451	0	219	233	1	1,781	451	1	513
Headwaters Johnson Creek	989	1,256		386	989	0	2,858	1,256	1	1,227
Loosum Creek-East Fork SFSR	202	981	1,591	811	188	1,051	2,188	1,113	132	3,998
Lower Big Creek	110	492	298	356	137	79	519	492	0	556
Lower Gold Fork River	2	79	49	54	24	55	168	79	0	299
Lunch Creek-Johnson Creek	1,309	1,590		402	1,303	0	3,093	1,590	7	843
No Mans Creek-East Fork SFSR	463	2,594	1,539	2,150	457	835	3,729	2,754	161	3,535

Subwatershed Name	American Three-toed Woodpecker (Acres)	Black-backed Woodpecker (Acres)	Dusky Grouse (Acres)	Boreal Owl (Acres)	Fisher (Acres)	Flammulated Owl (Acres)	Great Gray Owl (Acres)	Northern Goshawk (Acres)	Pileated Woodpecker (Acres)	Silver-haired Bat (Acres)
Pearsol Creek-North Fork Payette River	12	32	972	8	24	373	42	36	10	1,054
Poison Creek-North Fork Payette River	321	751	1,076	187	658	1,324	873	771	38	1,736
Porcupine Creek-Johnson Creek	781	2,232	1,946	1,459	781	1,198	3,826	2,289	57	3,973
Profile Creek	1,268	2,418	115	1,373	19	200	2,291	1,560	173	1,664
Quartz Creek	433	1,711	457	1,326	410	262	3,114	1,821	110	1,949
Riordan Creek	517	1,086	77	750	429	109	3,171	1,086	0	1,120
Sheep Creek-Johnson Creek	635	882	40	293	634	15	2,022	883	2	947
Six-bit Creek-SFSR	180	562	2,088	358	217	809	1,976	562	7	4,070
Sugar Creek	233	1,402	78	1,197	153	14	3,274	1,339	8	1,364
Tamarack Creek	3,199	4,106	197	1,217	124	51	2,338	1,364	31	1,374
Trapper Creek-Johnson Creek	498	2,226	261	1,759	498	187	3,906	2,232	7	1,469
Upper Big Creek	1,183	4,676	2,349	3,194	1,673	2,605	5,998	4,744	142	5,874
Upper Pistol	0	0	0	0	0	0	0.001	0	0	0
Upper Monumental Creek	735	1,508	376	1,591	578	157	3,633	1,553	227	1,690
Warm Lake Creek	58	116	683	59	70	111	1,272	116	0	1,374
Total	**21,675**	**49,424**	**20,509**	**28,602**	**19,711**	**18,321**	**75,932**	**45,758**	**1,722**	**57,719**

Source: Forest Service 2020e.

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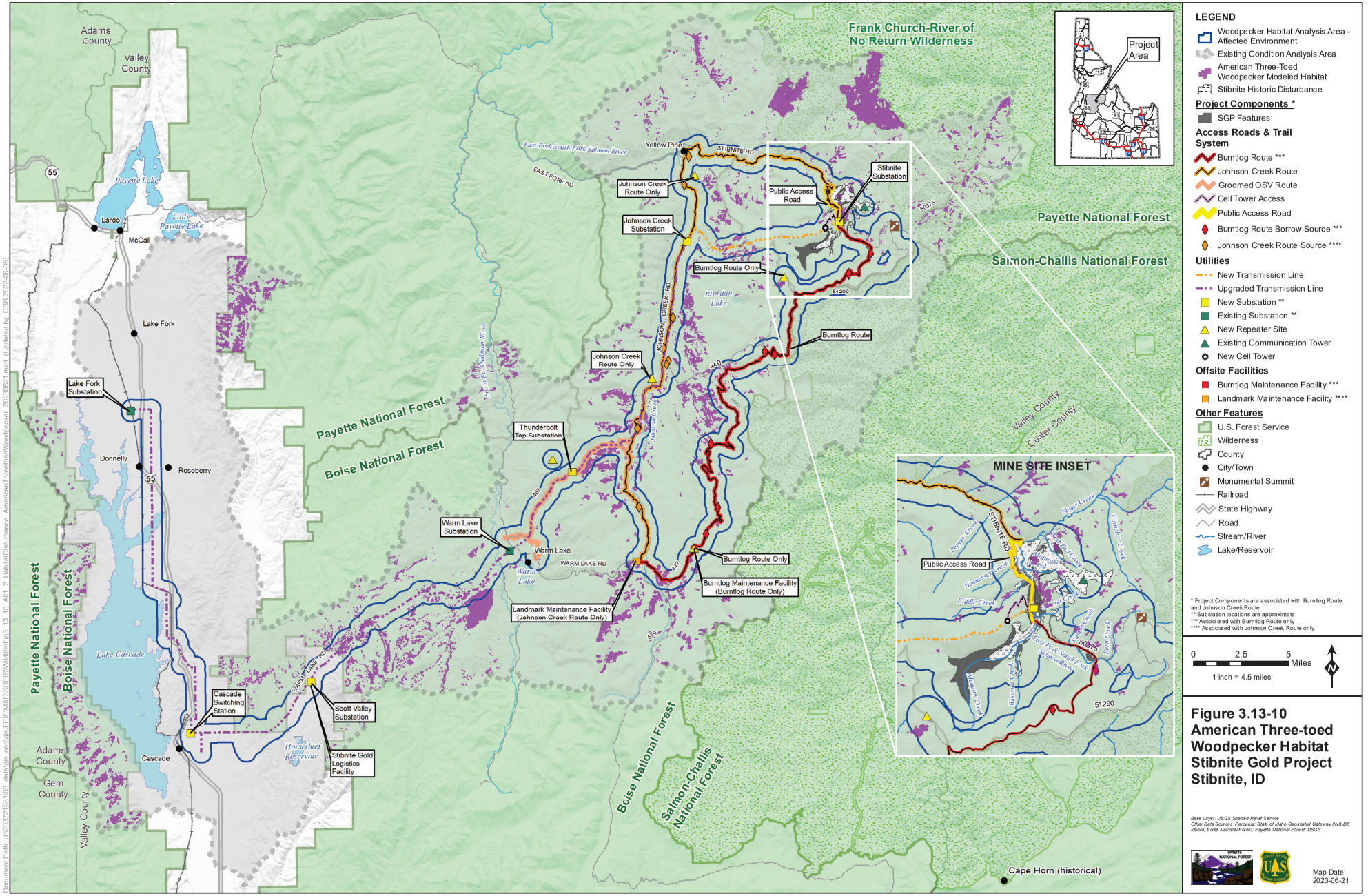

Figure 3.13-10 American Three-toed Woodpecker Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21

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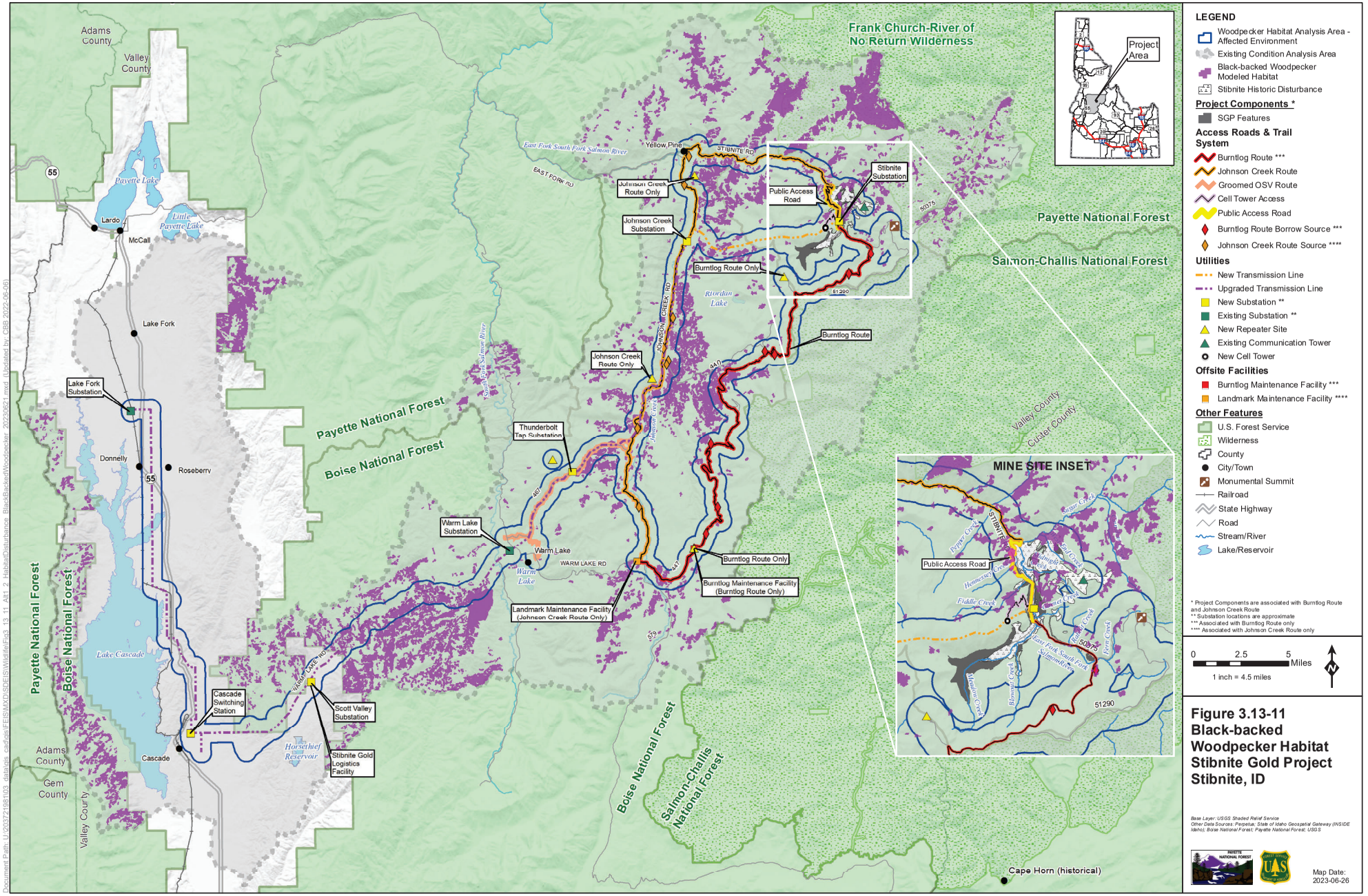

Figure 3.13-11
Black-backed Woodpecker Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

Document Path: U:\20527198\103_data\gis_cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3_13_11_Alt 2_HabitatDisturbance_BlackBackedWoodpecker_20230621.mxd (Updated by: CBB 2022-06-06)

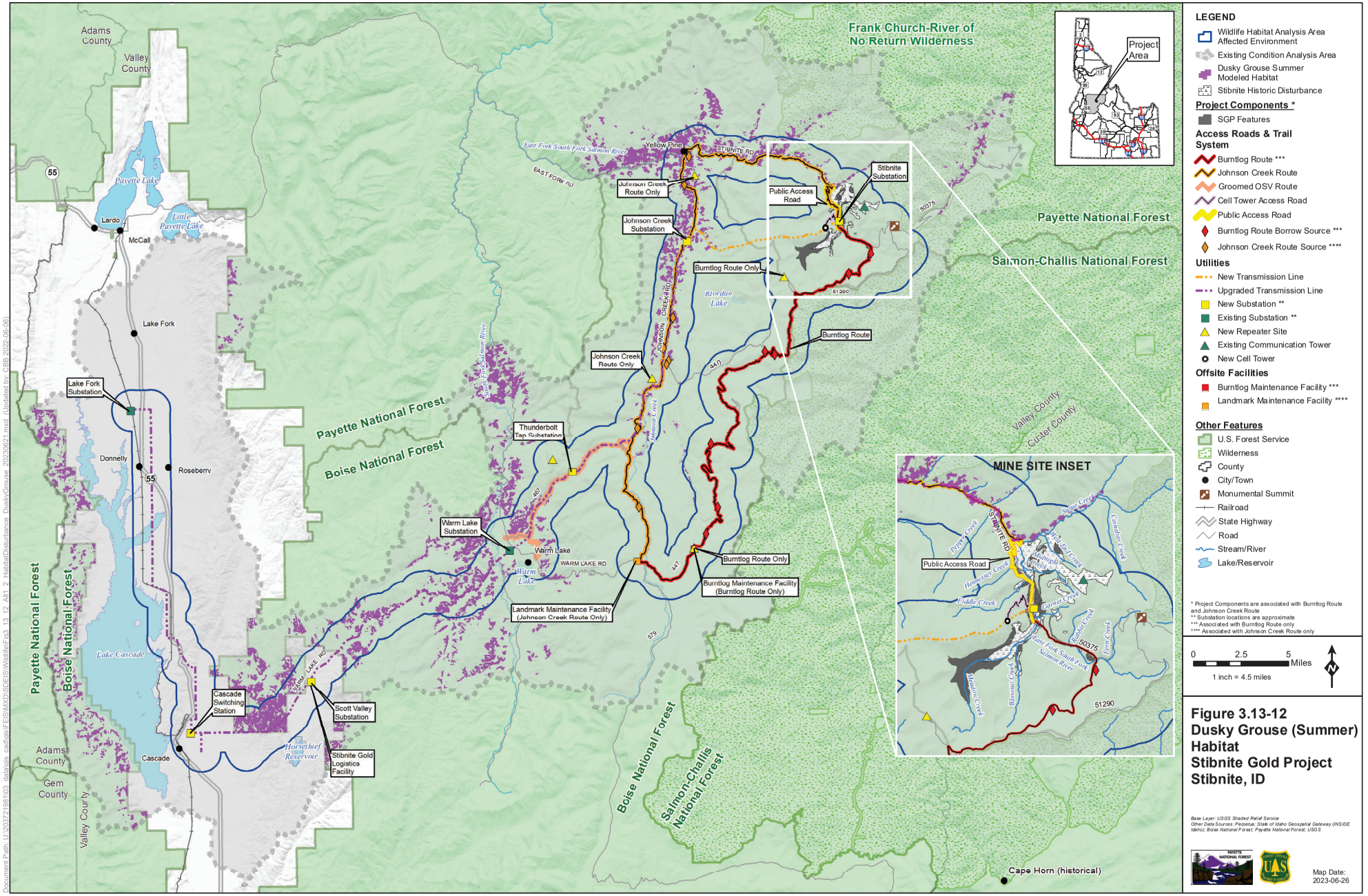

Figure 3.13-12
Dusky Grouse (Summer) Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

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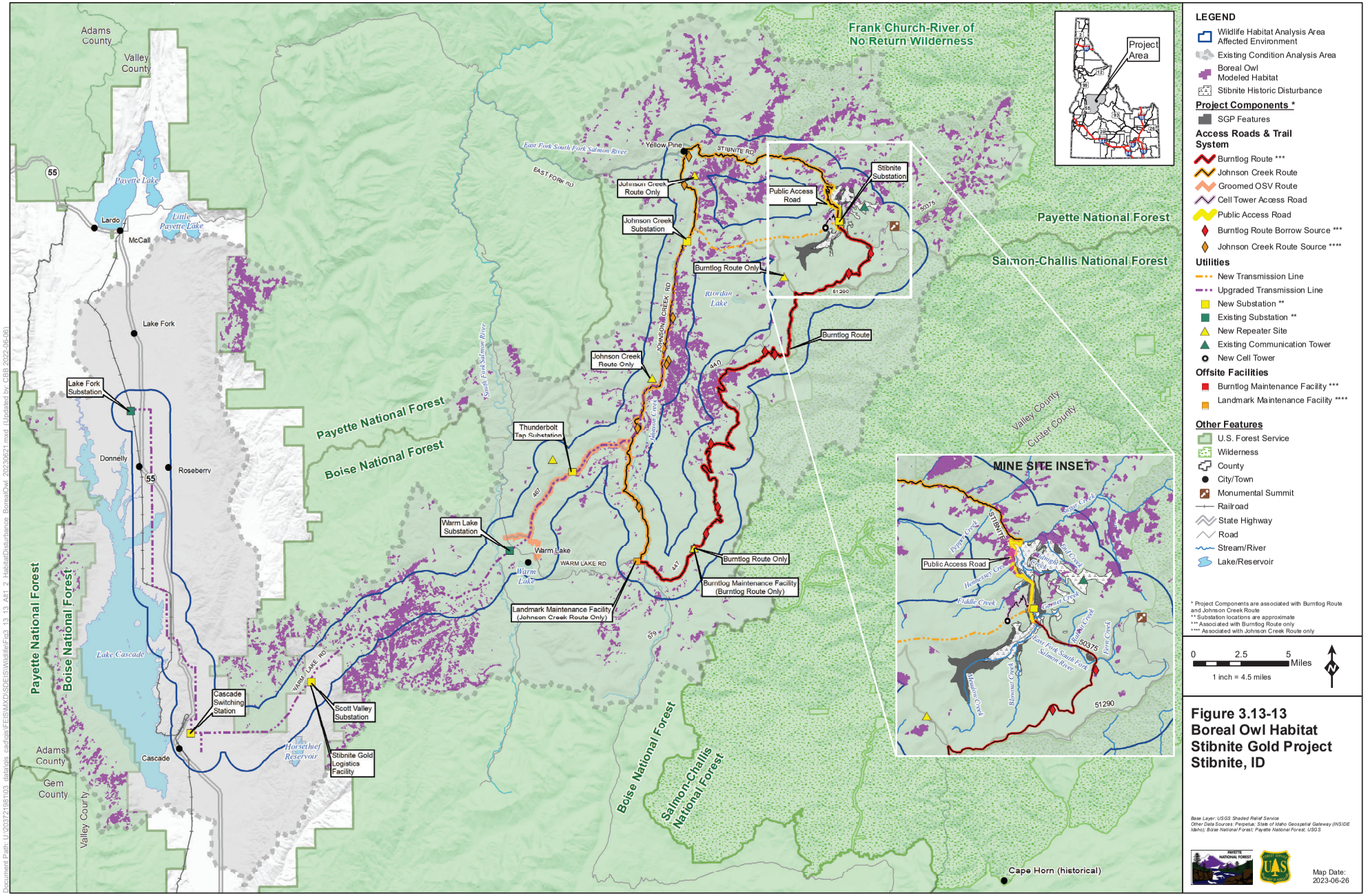


Figure 3.13-13
Boreal Owl Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

Document Path: U:\20527219B1103_data\gis_cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3_13_13_Alt1_2_HabitatDisturbance_BorealOwl_20230621.mxd (Updated by: CBB 2022-06-06)

Fisher. The fisher, a large member of the weasel family. The species was previously granted candidate species status by the USFWS for the West Coast DPS (68 Federal Register 41169; July 10, 2003), but listing was determined to be "not warranted" for the Rocky Mountain Region DPS (76 Federal Register 38504; June 30, 2011). The Forest Service has fisher survey units located across the PNF and BNF and the most recent state monitoring was conducted in 2018-2019 (IDFG 2019b). Although commercial harvest of fishers in Idaho has been closed for more than 60 years, fisher populations have not recovered in western portions of their range (Lofroth et al. 2010; USFWS 2010). On the PNF, incidental trapping continues to be a mortality issue for fisher.

In the western U.S., fishers use coniferous and mixed mature forests, often in riparian corridors and drainages (Meyer 2007; Raley et al. 2012). Sauder and Rachlow (2014; 2015) found that fisher core use areas were often composed of moderate amounts of high canopy cover forest and moderate landscape edge density, and that forest heterogeneity was an important factor in habitat selection. Olson et al. (2014) also found that the probability of fisher occurrence was highest in mesic (i.e., containing a moderate amount of moisture) forest types with tall trees (i.e., between 25 and 50 meters), high annual precipitation, and mid-range winter temperatures. This is supported by Schwartz et al. (2013), who found that fishers disproportionately used late successional forests with large diameter trees in their study in the Northern Rocky Mountain region. They den in cavities of dead snags, living trees, or in downed trees greater than 20 inches dbh (Meyer 2007). In conifer forests of Idaho, fishers have very large home ranges. Average home range size estimates are approximately 2,400 to 10,000 acres for females and 7,400 to 20,000 acres for males (Jones 1991; Olson et al. 2014).

Vegetative communities that may provide source habitat conditions include PVGs 3, 6, 8, 9, and 10 in medium and large tree size classes and moderate or high canopy cover classes (Nutt et al. 2010). Special habitat features include riparian corridors (travel, prey patches), down logs (resting and den sites), and snags (resting and den sites). Approximately 19,711 acres of modeled source habitat occurs in the wildlife analysis area (**Table 3.13-6**; **Figure 3.13-14**).

Flammulated owl. Flammulated owl, is a cavity nester that prefers stands of medium to large trees (ponderosa pine, Douglas-fir, and aspen) with moderate canopy closure (Forest Service 2012a). Occupied habitat is strongly associated with upper slopes (upper third) or ridges. This species is highly migratory and, as an insectivore, would only occur in the SGP area during warmer time periods when insects, particularly moths, are available. Breeding home ranges average approximately 35 acres. Nesting occurs in April and May, with fledging typically complete by the end of July (IDFG 2012). At higher elevations, this may fluctuate with prey availability.

Vegetative communities that provide source habitat conditions include PVGs 2, 3, 5, and 6 in the medium and large tree size classes and moderate canopy cover class (Nutt et al. 2010). Historical fire regimes in these PVGs include nonlethal and mixed (Forest Service 2003a, Appendix A). Snags are a special habitat feature for flammulated owls and provide nesting sites. Flammulated owl monitoring transects exist in the SGP area and the species has been documented and breeds in the wildlife analysis area. Approximately 18,321 acres of modeled source habitat is present (**Table 3.13-6**; **Figure 3.13-15**).

Great gray owl. Great gray owl source habitat includes old forests (multi- and single-story); unharvested, young, multi-story forests; and stand-initiation stages of subalpine and montane forests, including Engelmann spruce, spruce-subalpine fir, and riparian woodlands (Wisdom et al. 2000). The habitat components considered most important for great gray owl are suitable nesting sites in mature or older forest, with adjacent suitable foraging areas in non-stocked and seedling forests, meadows, and open riparian habitats adjacent to extensive meadows. Large diameter trees or snags are special habitat features for the great gray owl. Great gray owls often use the nests of other raptor species in large, broken-topped trees and are known to nest within northern goshawk nest stands. Though associated with mature to old-growth conifer forests, they forage in open areas within 2 miles of nests, including meadows, bogs, and peatlands (Ulev 2007). Due to their close association with snow cover, breeding season typically lasts from late February to late May on the PNF and BNF.

Vegetative communities on the PNF and BNF capable of providing great gray owl source habitat conditions include PVGs 3, 6, 7, 8, 9, 10, and 11. Many of these PVGs historically had mixed and lethal fire regimes, which can create both open and forested habitats being used by the owls. The model likely greatly overestimates the amount of source habitat because it does not account for forest stands proximate to open meadows or other foraging habitats. Due to their specific habitat requirements, including this habitat mix, great gray owls are expected to be uncommon within the analysis area.

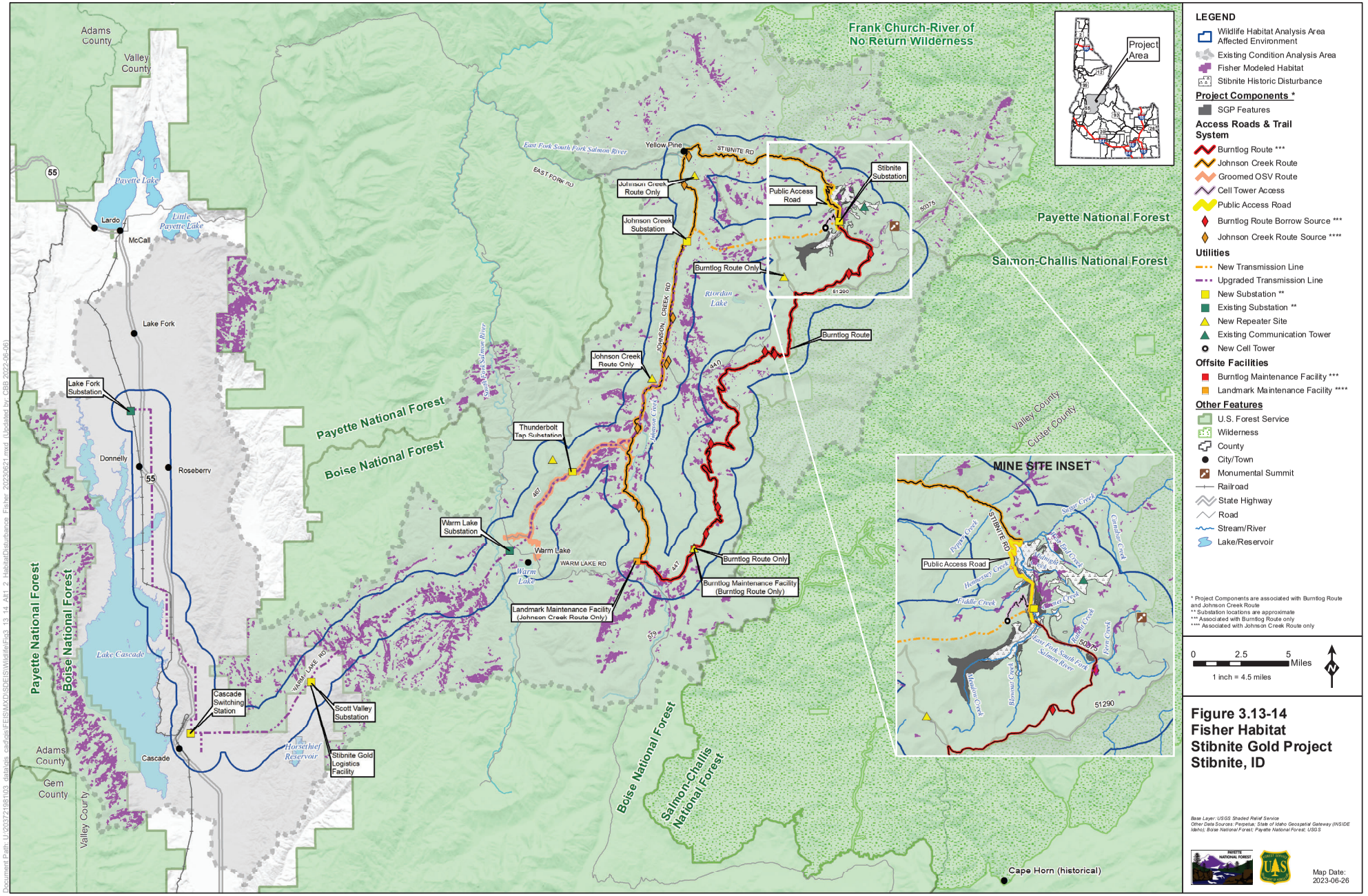
Great gray owls have limited Forest Service documentation in the wildlife analysis area. Strobilus Environmental (2017) indicates that great gray owls have been documented in the Warm Lake and Landmark LAUs. Broadcast surveys were conducted at two sites within the wildlife analysis area and no individual owls were detected (HDR 2017j and 2017k). Approximately 75,932 acres of modeled source habitat is present (**Table 3.13-6**; **Figure 3.13-16**).

Northern goshawk. The northern goshawk occupies northern conifer forests. Northern goshawks use a variety of forest ages, structural conditions, and successional stages (Stone 2013) and are associated with shrubland and grassland habitats. The home range for a goshawk pair is up to 6,000 acres (Stone 2013). Nesting is typically from April through June and fledging is generally complete by the end of August.

Goshawks have been documented at low levels in the wildlife analysis area, specifically in the Burntlog and Stibnite LAUs (Forest Service 2018a; Strobilus Environmental 2017); although there appears to be sufficient habitat for breeding, goshawks are expected to be uncommon. HDR conducted goshawk surveys in 2015 and 2017 in the proposed mine site area at the request of the Forest Service. No adult or juvenile goshawks were observed during broadcast acoustical surveys, and no evidence of nests, whitewash (i.e., urine and feces), prey remains, or molted feathers were observed (HDR 2015b, 2017k).

On both the PNF and BNF, source habitat for northern goshawks occurs in all PVGs except 1 and 11 in the medium and large tree size classes and moderate and high canopy cover class (Nutt et al. 2010). PVGs 2 through 9 are capable of developing multi-layered, mature, and late seral stands with a dense canopy. For some PVGs, such as PVG 6, these conditions occur under historical fire regimes, while other PVGs, such as PVGs 2 and 5, develop these conditions from fire suppression and altered fire regimes.

Approximately 45,758 acres of modeled source habitat is present in the wildlife analysis area (**Table 3.13-6**; **Figure 3.13-17**).



LEGEND

- Wildlife Habitat Analysis Area Affected Environment
- Existing Condition Analysis Area
- Fisher Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

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- New Transmission Line
- Upgraded Transmission Line
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- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
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- Monumental Summit
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- State Highway
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- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

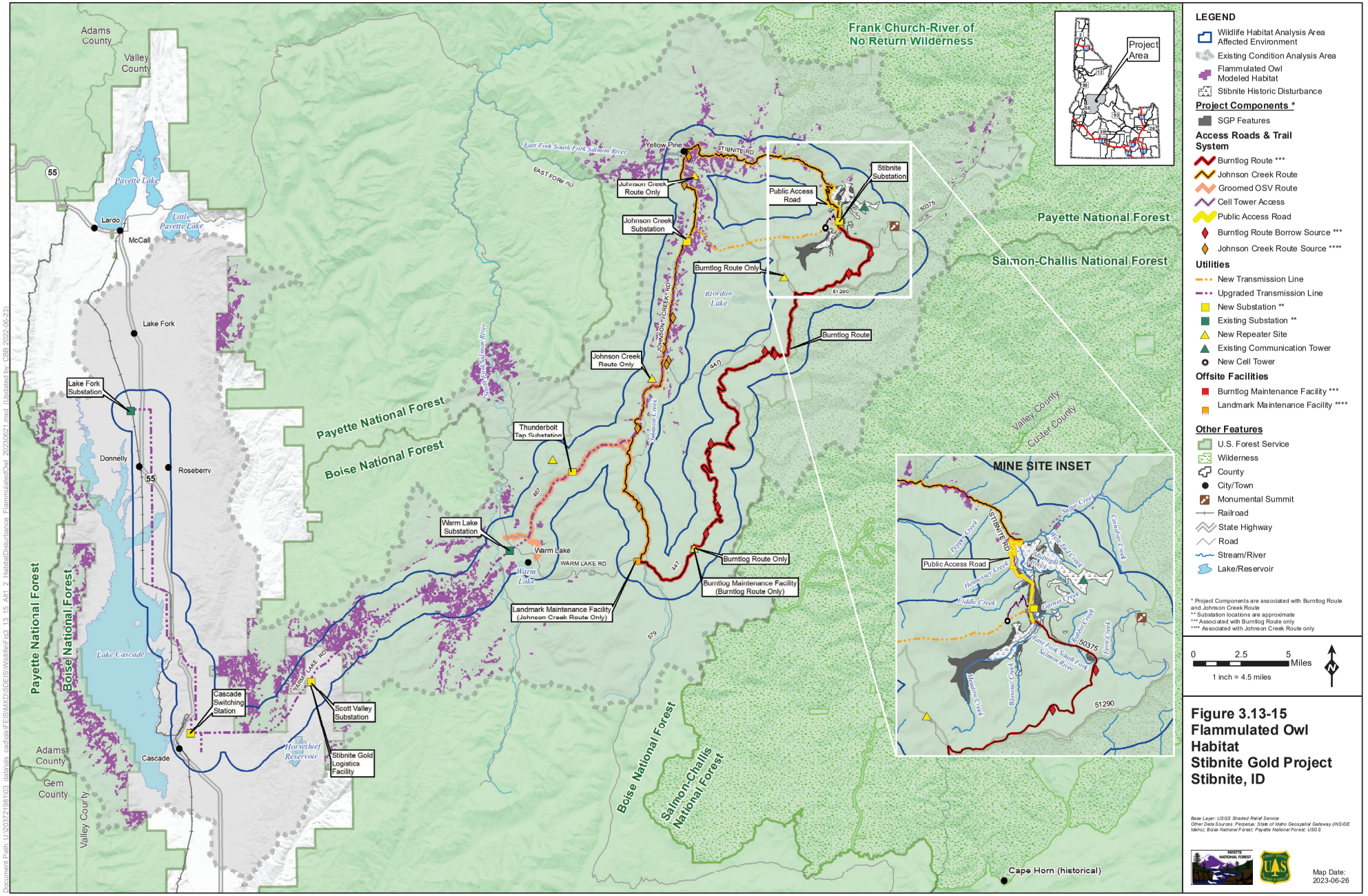
0 2.5 5 Miles

1 inch = 4.5 miles

Figure 3.13-14
Fisher Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26



LEGEND

- Wildlife Habitat Analysis Area Affected Environment
- Existing Condition Analysis Area
- Flammulated Owl Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

Utilities

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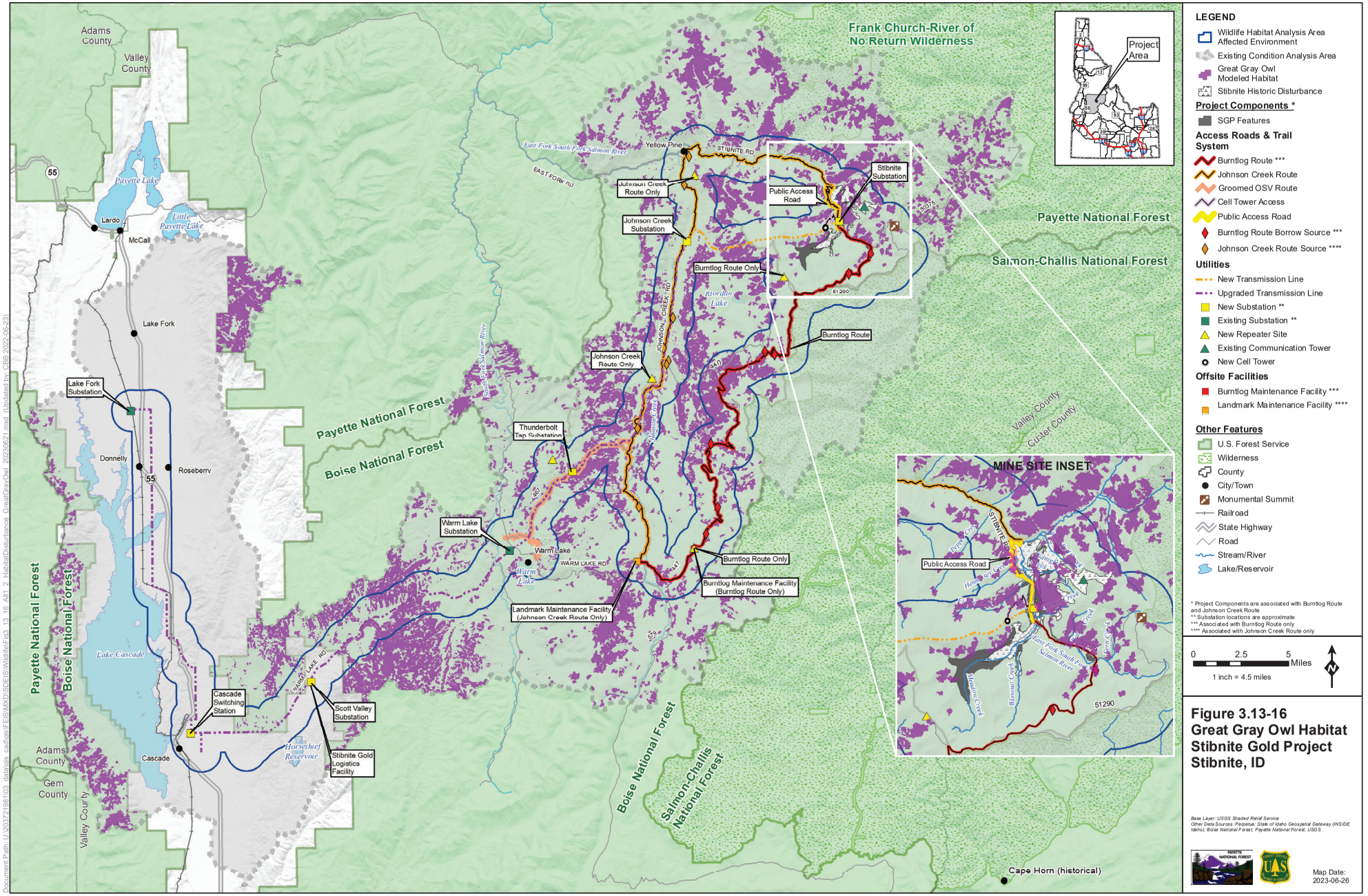
* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

0 2.5 5 Miles
1 inch = 4.5 miles

Figure 3.13-15 Flammulated Owl Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26



LEGEND

- Wildlife Habitat Analysis Area Affected Environment
- Existing Condition Analysis Area
- Great Gray Owl Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

Utilities

- New Transmission Line
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- New Substation **
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- Burntlog Maintenance Facility ***
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* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

0 2.5 5 Miles

1 inch = 4.5 miles

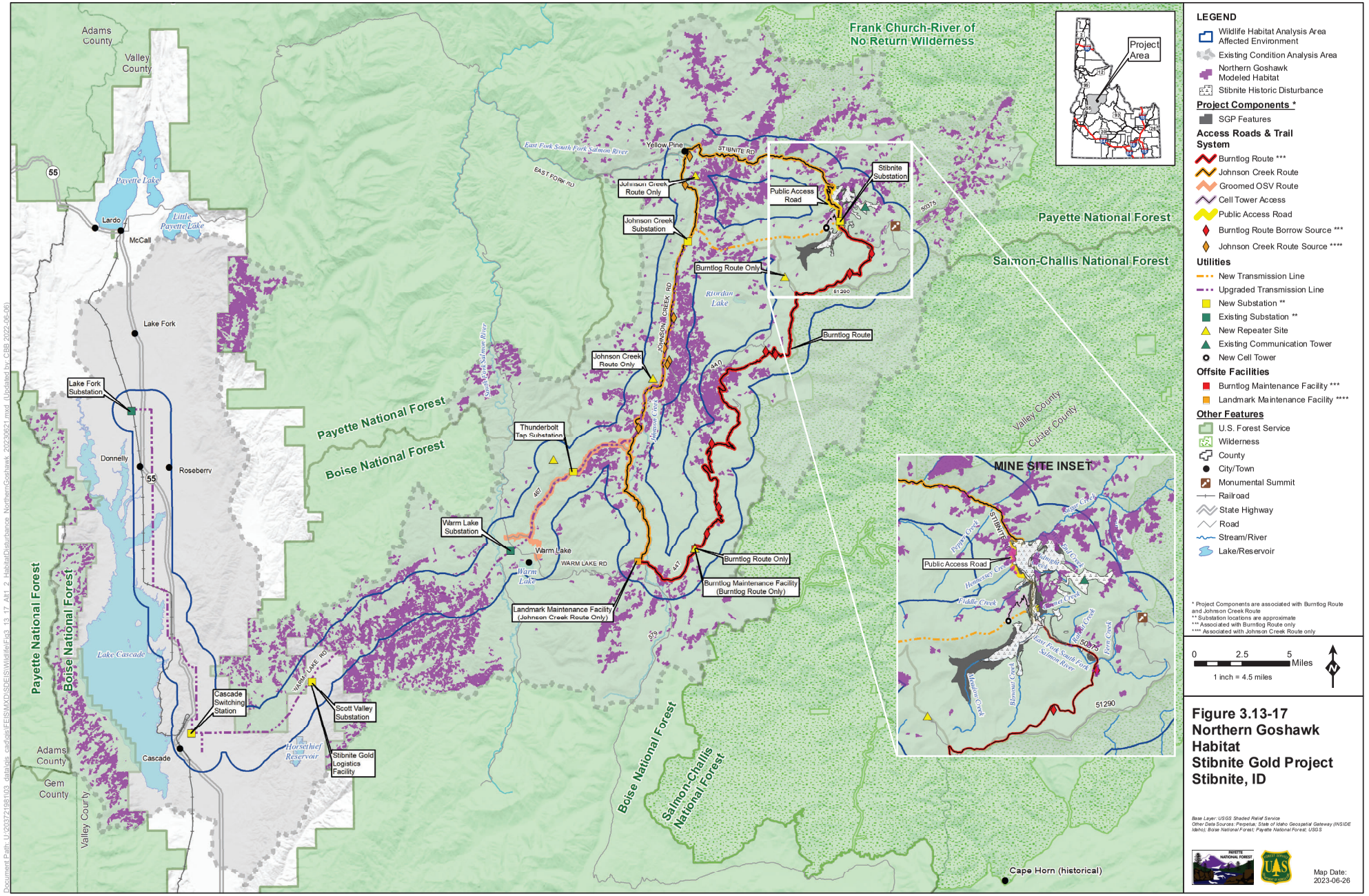
N

Figure 3.13-16
Great Gray Owl Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

Document Path: U:\20372198\103_data\gis_cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3_13_16_Alt 2_HabitatDisturbance_GreatGrayOwl_20230621.mxd (Updated by: CBB 2022-06-23)



LEGEND

- Wildlife Habitat Analysis Area Affected Environment
- Existing Condition Analysis Area
- Northern Goshawk Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

Utilities

- New Transmission Line
- Upgraded Transmission Line
- New Substation **
- Existing Substation **
- New Repeater Site
- Existing Communication Tower
- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- State Highway
- Road
- Stream/River
- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

0 2.5 5 Miles

1 inch = 4.5 miles

Figure 3.13-17 Northern Goshawk Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

Document Path: U:\20527198103 data\gis cad\gis\EIS\MXD\SDEIS\Wildlife\Fig3_13_17_Alt 2_HabitatDisturbance_NorthernGoshawk_20230621.mxd (Updated by: CBB 2022-06-06)

Pileated woodpecker. Pileated woodpeckers serve a variety of functional roles within the community and are associated with habitat elements used by other species in this family. Pileated woodpeckers occupy dense deciduous, coniferous, or mixed forests; open woodlands; second growth forests; and parks and wooded residential areas of towns. The species prefers habitats with tall, closed canopies and high basal areas. General characteristics of habitat provide opportunities for nesting, roosting, and foraging and include the presence of large diameter trees and snags, multiple canopy layers, decaying wood on the forest floor, and a somewhat moist environment that promotes fungal decay, and ant, termite, and beetle populations to forage upon. Source habitats for pileated woodpeckers are typically late-seral stages of subalpine and montane community types. Home ranges average 1,006 acres.

On the PNF and BNF, vegetative communities that may provide source habitat conditions include PVGs 2, 3, 5, 6, 8, and 9 in the large tree size classes and moderate and high canopy cover class (Nutt et al. 2010). Some PVGs are capable of providing source habitat conditions under historical fire regimes while others do so because of altered fire regimes (i.e., PVGs 2 and 5). Special habitat features for pileated woodpecker include large diameter (>21 inches dbh) snags and hollow live trees for nesting and roosting, and large standing dead and downed trees for foraging. Some of these special habitat features are not well represented by the model. The very large tree size class is very limited in the analysis area. Approximately 1,722 acres of modeled source habitat is present in the wildlife analysis area (**Table 3.13-6**; **Figure 3.13-18**).

Silver-haired bat. Silver-haired bat is associated with primarily forested areas adjacent to lakes, ponds, and streams, including areas with human disturbance. They are generally migrant over a major part of their range. Summer roosts are in conifer/deciduous tree foliage, cavities, loose bark, and sometimes in buildings. Day roost trees are usually characterized as large (>21 inches dbh), dead or live with some defect, with loose bark and cracks. Winter habitat includes mines, caves, rock crevices, under tree bark and hollow trees / snags.

Source habitat for resident silver-haired bats is in forested and woodland areas, generally late seral stages of subalpine, montane, lower montane, and riparian woodland community groups. Modeling of source habitat for this species, which consists of both foraging and roosting habitat, utilizes Seedling (<4.5 feet tall), Medium (10 to 19.9 inches dbh), Large (20 to 29.9 inches dbh), and Very Large (>30 inches dbh) tree size classes. Literature also supports use of forested stands in the Low (10 to 19 percent), Low-Medium (20 to 29 percent), and Medium (30 to 44 percent) tree canopy cover classes for preferred PVGs within their HRV. Silver-haired bats have been documented on Forest Service lands in the wildlife analysis area and in the FCRNRW (IDFG 2017a; 2013). Approximately 57,719 acres of modeled source habitat is present in the wildlife analysis area (**Table 3.13-6**; **Figure 3.13-19**).

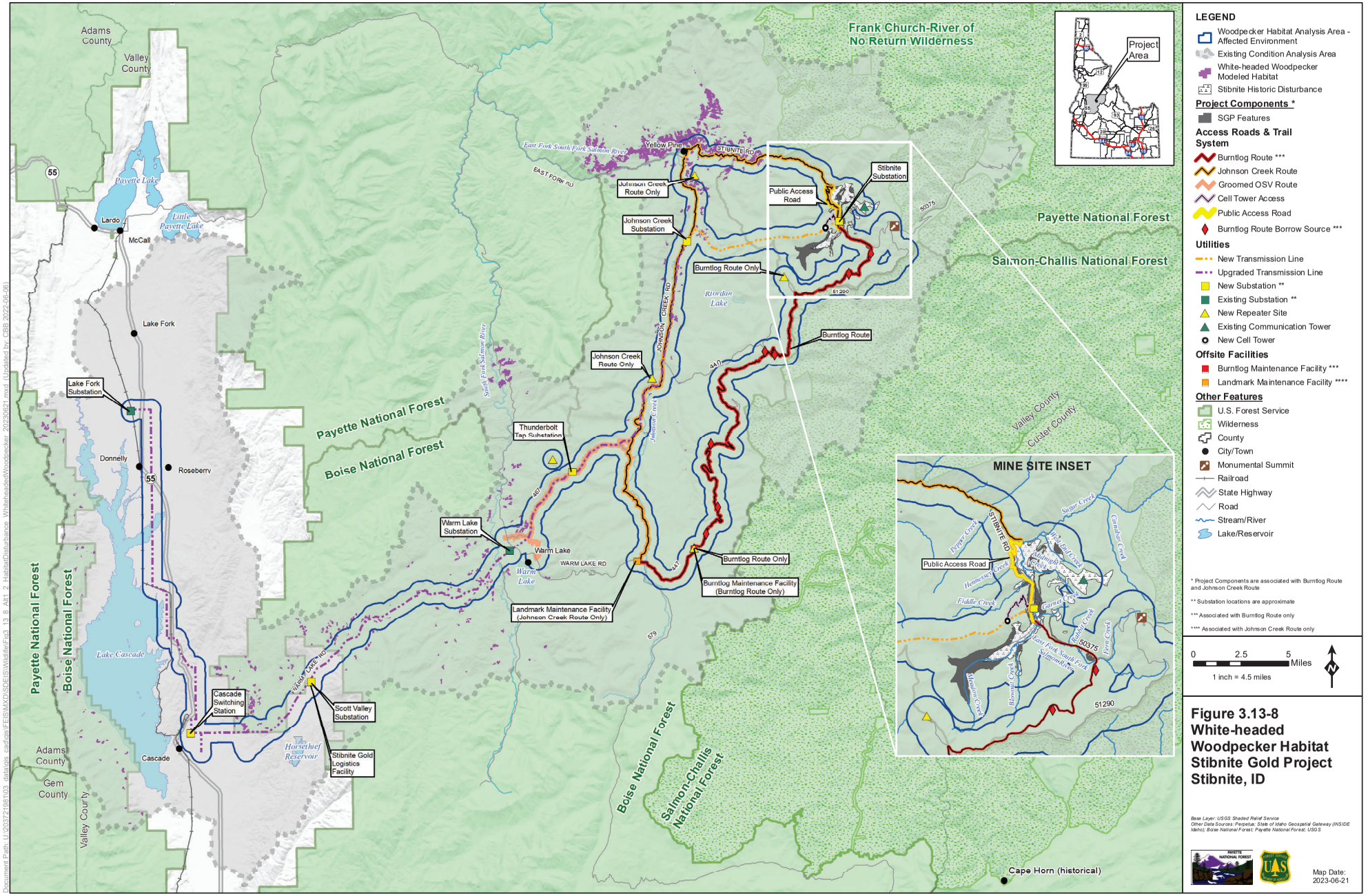
Habitat Family 3- Forest Mosaic

Species within this family tend to be habitat generalists in montane forests. Most species also use subalpine forests, lower montane forests, or riparian woodlands as source habitats. A few species use upland shrub and upland herb communities. Source habitat occurs across all PVGs and structural stages. Three TEPC or Sensitive wildlife species are within Family 3: Canada lynx (discussed in TEPC section), wolverine (discussed in TEPC section), and mountain quail.

Mountain quail. Mountain quail is closely associated with riparian habitats (Forest Service 2012a). Wisdom et al. (2000) describes forest habitat associations for this species as all forested vegetation stages, except stem exclusion (i.e., forest stage where young trees are rapidly competing and growing densely) in Interior Douglas-fir, Interior ponderosa pine, and Western larch cover types.

On the BNF and PNF, vegetative communities that may provide source habitat conditions for mountain quail include PVGs 1, 2, 4, 5, 7, and 11 (Nutt et al. 2010). Historical fire regimes are nonlethal in low elevation types (PVGs 1, 2, and 5) and "mixed1" or "mixed2" in other PVGs. Riparian shrubland is a special habitat feature. In the Interior Columbia Basin, mountain quail are usually found within 100 to 200 meters (328 to 656 feet) of a water source. The source habitat model utilizes Seedling (4.5 feet tall), Sapling (0.1 to 4.9 inches dbh), Small (5 to 9.9 inches dbh, Medium (10 to 19.9 inches dbh), Large (20 to 29.9 inches dbh), and Very Large (>30 inches dbh) tree size classes and selected forested stands in the Low (11 to 19 percent) and Low-Medium (20 to 29 percent) tree canopy cover classes.

Mountain quail are most often found in areas with high abundance of shrubs and the model also includes Very Low (10 to 20 percent) and Low (20 to 30 percent) canopy cover classes for the SHRUB existing vegetation type and Very Low (10 to 20 percent), Low (20 to 30 percent), and Moderate (30 to 40 percent) for the FOREST existing vegetation type to model non-forest source habitat. Although approximately 72,681 acres of mountain quail modeled source habitat occurs in the wildlife analysis area (**Table 3.13-7**; **Figure 3.13-20**), the nearest recorded observation is approximately 8 miles west of the northern portion of the analysis area (Forest Service 2017c) and species occurrence is expected to be rare.



LEGEND

- Woodpecker Habitat Analysis Area - Affected Environment
- Existing Condition Analysis Area
- White-headed Woodpecker Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access
- Public Access Road
- Burntlog Route Borrow Source ***

Utilities

- New Transmission Line
- Upgraded Transmission Line
- New Substation **
- Existing Substation **
- New Repeater Site
- Existing Communication Tower
- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- State Highway
- Road
- Stream/River
- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route

** Substation locations are approximate

*** Associated with Burntlog Route only

**** Associated with Johnson Creek Route only

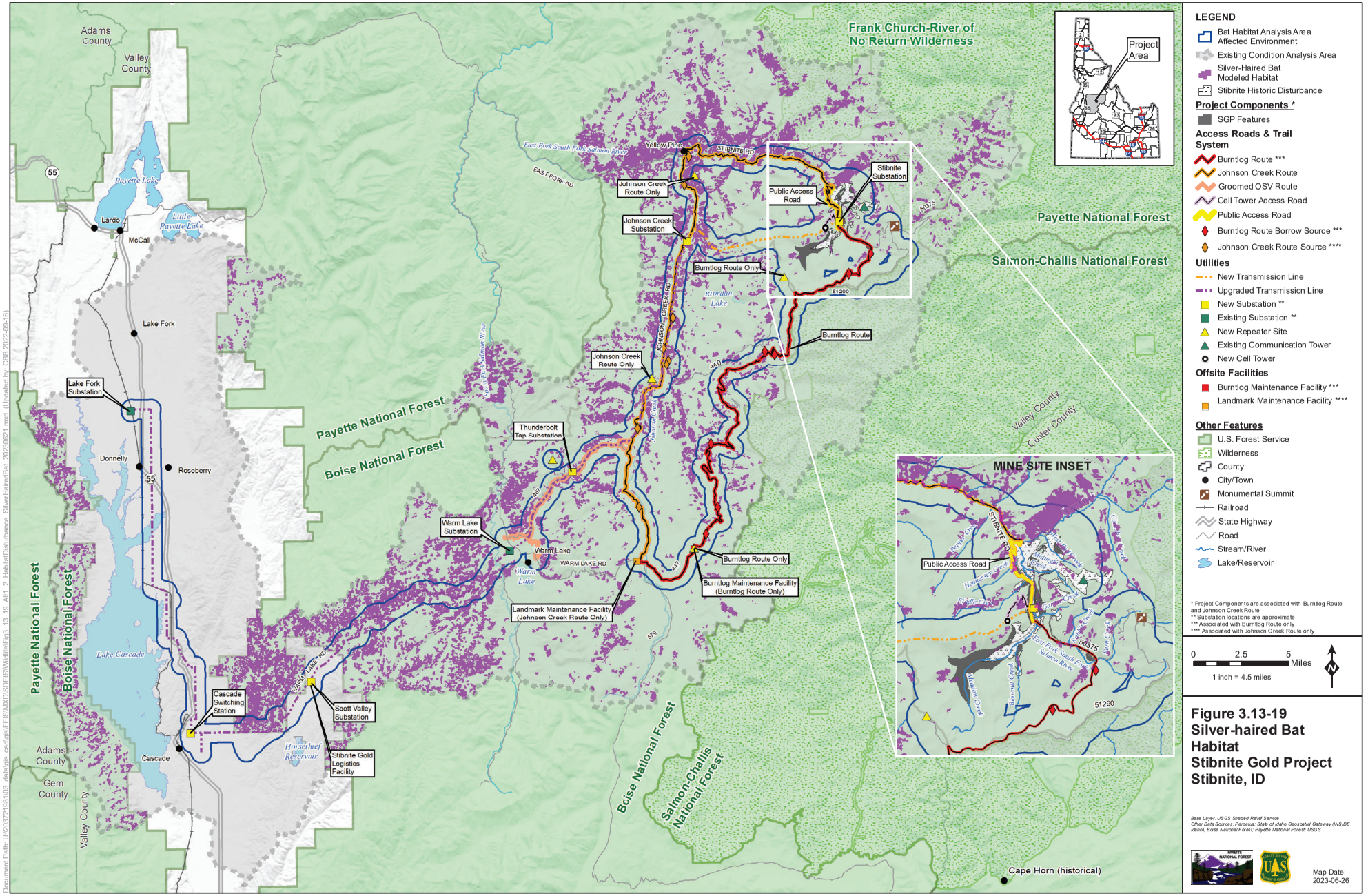
0 2.5 5 Miles

1 inch = 4.5 miles

Figure 3.13-8 White-headed Woodpecker Habitat Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-21



LEGEND

- Bat Habitat Analysis Area Affected Environment
- Existing Condition Analysis Area
- Silver-Haired Bat Modeled Habitat
- Stibnite Historic Disturbance

Project Components *

- SGP Features

Access Roads & Trail System

- Burntlog Route ***
- Johnson Creek Route
- Groomed OSV Route
- Cell Tower Access Road
- Public Access Road
- Burntlog Route Borrow Source ***
- Johnson Creek Route Source ****

Utilities

- New Transmission Line
- Upgraded Transmission Line
- New Substation **
- Existing Substation **
- New Repeater Site
- Existing Communication Tower
- New Cell Tower

Offsite Facilities

- Burntlog Maintenance Facility ***
- Landmark Maintenance Facility ****

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- State Highway
- Road
- Stream/River
- Lake/Reservoir

* Project Components are associated with Burntlog Route and Johnson Creek Route
** Substation locations are approximate
*** Associated with Burntlog Route only
**** Associated with Johnson Creek Route only

0 2.5 5 Miles
1 inch = 4.5 miles

Figure 3.13-19
Silver-haired Bat Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

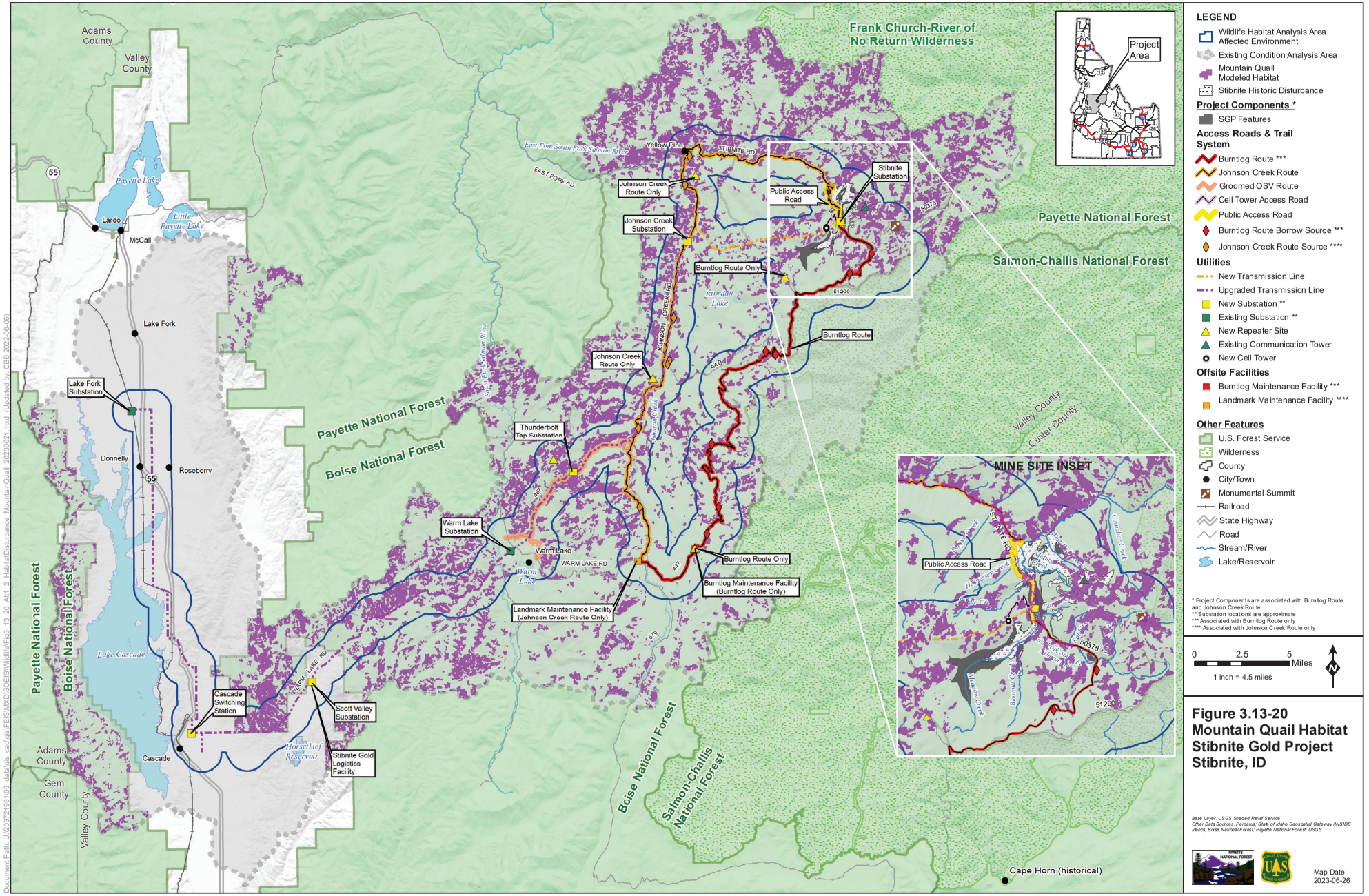


Figure 3.13-20
Mountain Quail Habitat
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetuia; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS

Map Date: 2023-06-26

Document Path: U:\20527198\103 data\gis cad\gis\FEIS\MXD\SDEIS\Wildlife\Fig3 13 20 Alt 2 HabitatDisturbance MountainQuail 20230621.mxd (Updated by: CBB 2022-06-06)

Table 3.13-7 Habitat Family 3 and 5- Modeled Source Habitat in the Wildlife Analysis Area

Subwatershed Name	Mountain Quail (Acres)	Rocky Mountain Bighorn Sheep (Acres)	
		Summer	Winter
Bear Creek-SFSR	1,601	2,681	767
Beaver Creek	1,276	102	70
Boulder Creek	887	773	0
Burntlog Creek	3,040	1,055	119
Curtis Creek	3,590	611	221
Ditch Creek-Johnson Creek	4,219	3,583	258
Duck Creek-Cascade Reservoir	1,825	1,749	8
Goat Creek-SFSR	3,811	5,544	1,092
Headwaters East Fork SFSR	2,459	1,371	285
Headwaters Johnson Creek	2,383	630	0
Loosum Creek-East Fork SFSR	4,475	1	1
Lower Big Creek	655	322	124
Lower Gold Fork River	260	0	0
Lunch Creek-Johnson Creek	1,662	385	14
No Mans Creek-East Fork SFSR	3,166	1,941	1,067
Pearsol Creek-North Fork Payette River	1,076	46	24
Poison Creek-North Fork Payette River	777	520	5
Porcupine Creek-Johnson Creek	4,020	2,173	324
Profile Creek	3,027	2,812	61
Quartz Creek	3,089	2,729	214
Riordan Creek	1,288	810	39
Sheep Creek-Johnson Creek	1,962	482	13
Six-bit Creek-SFSR	3,491	985	356
Sugar Creek	3,159	3,411	506
Tamarack Creek	3,132	3,801	697
Trapper Creek-Johnson Creek	1,319	945	65
Upper Big Creek	4,531	386	78
Upper Indian Creek	1	4,833	844
Upper Little Pistol Creek	1	4,747	551
Upper Monumental Creek	4,598	5,926	1,465
Warm Lake Creek	1,899	2,624	567
Total	**72,681**	**59,405**	**10,306**

Source: Forest Service 2020e.

Habitat Family 5 – Forest and Range Mosaic

Family 5 species use a broad range of forest, woodlands, and rangelands as source habitat (Wisdom et al. 2000). Source habitats occur in all PVGs and structural types, as well as woodland and non-forested types. Human disturbance and altered fire regimes are primary factors affecting some species (Wisdom et al. 2000). Species associated with Family 5 potentially in the wildlife analysis are: gray wolf, peregrine falcon, Rocky Mountain bighorn sheep, and Rocky Mountain elk. Of the four species, current habitat modeling is only available for Rocky Mountain bighorn sheep. Remaining species are addressed qualitatively.

Gray wolf. Gray wolves are a Region 4 Sensitive species and are federally listed in several western states, excluding Idaho. Gray wolves in the northern Rocky Mountain states (i.e., Idaho, Montana, and parts of Oregon, Washington, and Utah) were delisted by the USFWS in May 2011. They are habitat generalists with large pack territories of up to 150 square miles (Snyder 1991). Their range is related to availability of prey species, including deer, elk, and, less commonly, moose, bighorn sheep, and domestic stock. Gray wolves are well documented in the wildlife analysis area. Natural Resource Manager (NRM) WILDLIFE records verify occupancy in and around the wildlife analysis area and several packs are known to occur in the FCRNRW area. Garcia and Associates observed tracks during a 2013 winter field study (Forest Service 2017c; Garcia and Associates 2013; Strobilus Environmental 2017). Gray wolves have been observed in the mine site, specifically at the proposed tailings storage facility (in June 1998), main ore processing area (May 2000), and Yellow Pine pit (June 1997) locations. Perpetua staff and consultants have observed gray wolves multiple times during exploration activities in the analysis area (Strobilus Environmental 2017).

Peregrine falcon. Peregrines are cliff nesters, utilizing cliffs from 30 to 400 meters (98 to 1,312 feet) high. Habitat surrounding the cliffs may be variable, ranging from old forests to second growth and sagebrush steppe environments. Common features of nesting habitat include close proximity (1,312 to 2,953 feet) to water, abundant avian prey, and lack of human disturbance during the breeding season (Pagel 1995). Although greater distances may be traveled, peregrines usually hunt within 10 miles of their nests with 80 percent of foraging occurring within 1 mile.

On the PNF and BNF, vegetative communities that could provide source habitat conditions include all forest and non-forest vegetation types. Source habitat is typically located within 10 miles of suitable nesting cliffs. Peregrine falcons have been documented within the wildlife analysis area and nesting has been verified along Johnson Creek and East Fork SFSR since 2000 (Forest Service 2018a). Breeding territories also are documented in the FCRNRW area.

Rocky Mountain bighorn sheep. Human settlement of Idaho in the mid-1800s increased harvest of bighorn sheep and introduced domestic sheep, resulting in a major loss of the species. Disease transmission from domestic sheep to bighorn sheep has resulted in substantial die-offs dating back to the 1870s in the Salmon River Mountains (Smith 1954). Current estimates place bighorn sheep numbers at 10 percent or less of the historic population levels.

Bighorn sheep occupy rugged canyons, foothills, and mountainous terrain at elevations ranging from 1,450 to 10,500 feet and slopes of 45 percent or greater. Key habitat features include steep, rugged escape terrain, such as cliffs and rockslides; grasses and forbs for forage; and a limited amount of tall vegetation.

Wisdom et al. (2000) describes source habitats for bighorn sheep in alpine, subalpine, upland shrubland, and upland herbland community groups. Alpine and subalpine community groups are primarily summer range and upland herbland and shrubland are used in both seasons, depending on elevation (Wisdom et al. 2000).

NRM WILDLIFE has a record of one bighorn sheep on the eastern border of the Stibnite LAU (Forest Service 2017c). They are known to occur in the FCRNRW area, which includes lambing areas for the Big Creek herd and collaring data from the Forest Service. The IDFG (2017b) estimated the bighorn sheep population in the Middle Fork Salmon River Population Management Unit (PMU) to be about 477 individuals in 2017, which was a decrease from survey estimates in 2004, 2006, and 2009. In addition, one bighorn sheep was observed approximately 6 miles northeast of the mine site (Strobilus Environmental 2017).

Bighorn sheep occurrence on the PNF and BNF is concentrated in areas with preferred habitat features such as Hell's Canyon National Recreation Area and the FCRNRW. Bighorn sheep have been documented in the wildlife analysis area. IDFG collaring data (2017b) verified several existing herds (Pinnacles, Big Creek, Monumental herds) and lambing areas within proximity to the SGP area. Approximately 59,405 acres of summer habitat and 10,306 acres of winter habitat is modeled within the wildlife analysis area, including some habitat on the Salmon-Challis National Forest.

On the PNF and BNF, PVGs 1, 2, 4, 5, 7, 9, 10, and 11 in all tree size classes and with a low canopy cover provide summer source habitat when this habitat is within 2 miles of rock, cliff, or talus slopes with greater than 27 percent gradient. Winter source habitat is composed of numerous sagebrush-dominated cover types when the canopy cover class is low, and these cover types are within 2 miles of rock, cliff, or talus slopes with greater than 27 percent gradient. More information on the PNF bighorn sheep model is available in the PNF Bighorn Sheep Supplemental EIS Technical Report, Source Habitat Model (Forest Service 2010d).

Table 3.13-7 and **Figures 3.13-5** and **3.13-6** display modeled summer and winter bighorn sheep habitat occurring in the analysis area.

Habitat Family 7 – Forests, Woodlands, and Sagebrush

Species in Family 7 use a complex pattern of forest, woodlands, and sagebrush cover types (Wisdom et al. 2000). A distinguishing feature of the family is that most species have specialized requirements for nesting and roosting, which often limits population size and distribution. Two Region 4 Sensitive wildlife species are members of Family 7: spotted bat and Townsend's big-eared bat. Due to the rarity of spotted bat, only Townsend's is addressed qualitatively in this analysis. Another Sensitive species, silver-haired bat (Family 2), which is believed to occur and has suitable habitat in the analysis area, is utilized as a proxy for other bat species.

Townsend's big-eared bat. Townsend's big-eared bat is a Region 4 Sensitive species and Idaho SGCN (Tier 3), with suitable habitat within the wildlife analysis area. Ponderosa pine, Douglas fir, and grand fir stands are abundant in the analysis area and may be used as summer maternity roost sites. Townsend's big-eared bats also will readily use underground mine workings and adits for daytime roosting (Gruver and Keinath 2006). There are no documented occurrences or records of Townsend's big-eared bat in the

wildlife analysis area. The nearest observation is approximately 20 miles north near the Snowshoe Mine on Crooked Creek in Idaho County (in the company of multiple other bat species) according to the NRM WILDLIFE database (Forest Service 2017c). No Townsend's big-eared bat colonies have been recorded in Valley County as of 1999 (Idaho Conservation Effort 1999). They also have been documented using openings in cliff walls along the Snake River Canyon (Hells Canyon), about 65 miles west of the analysis area (Strobilus Environmental 2017).

Habitat Family 13 – Riverine Riparian and Wetland

Source habitat for species in Family 13 occurs in conjunction with riverine riparian and wetland areas. Some species within the family also use non-riverine riparian and wetland habitats. Adjacent forests and woodlands provide nesting sites for some species. Three TEPC or Sensitive wildlife species are members of Family 13: bald eagle, Columbia spotted frog, and yellow-billed cuckoo. Yellow-billed cuckoo is not analyzed as described earlier in this section.

Bald eagle. The bald eagle is known to occur along riparian areas and in the vicinity of large waterbodies. The removal of the bald eagle from the Federal List of Endangered and Threatened Wildlife and Plants became effective August 9, 2007. However, the bald eagle is afforded some protections under the Bald and Golden Eagle Protection Act and the MBTA.

Two key habitats have been identified for bald eagles: nesting territory and wintering habitat. Nesting territories are typically associated with large rivers, lakes, reservoirs, or ponds that produce fish (Buehler 2000). Territories are used in successive years and may include more than one nest site. Bald eagles nest relatively close to water (1.25 miles) with suitable foraging opportunities (Buehler 2000). The majority of nest sites are located within one-half mile of a major stream or water body (USFWS 1986).

Wintering habitat also is typically associated with aquatic habitats with some open water for foraging (Buehler 2000). Winter habitat suitability is defined by food availability, the presence of roost sites that provide protection from inclement weather, and the absence of human disturbance (Buehler 2000). Winter food sources (e.g., fish, waterfowl, and ungulate carrion) and their availability varies across bald eagle winter range. Bald eagles scavenging on carcasses off highways are susceptible to motor-vehicle impact injuries. Bald eagles will tolerate some level of human activity in areas of high prey availability.

Key features of source habitat for the bald eagle include available food resources and suitable sites for nesting and roosting. These features can be correlated with watershed pathways used to assess the conditions of the watershed. The pathways that have relevance to the bald eagle include watershed condition, water quality, channel conditions and dynamics, and flow/hydrology.

In the wildlife analysis area, bald eagles have nested at Warm Lake since the early 2000s and they also forage in the lake, as well as in the SFSR (nest site last documented in 2008), and in the Johnson Creek area.

Columbia spotted frog. Columbia spotted frogs are aquatic and typically occur in or near permanent bodies of water, such as lakes, ponds, slow-moving streams, and marshes (Patla and Keinath 2005). The frogs generally occur along the marshy edges of such sites where emergent vegetation (e.g., grasses, sedges, cattails) is fairly thick and where an ample amount of dead and decaying vegetation exists. Some

occupied sites also may have a layer of algae or small vegetation (e.g., duckweed) on the surface of the water. During summer, they may travel away from breeding sites but are still typically associated with aquatic sites with vegetated margins (Patla and Keinath 2005). Given the elevation range of the species, occupied aquatic sites may be surrounded by a wide variety of terrestrial vegetation, including mixed coniferous and subalpine forests, grasslands, and shrub-steppe communities.

Patla and Keinath (2005) describe three seasonally occupied habitats: breeding, foraging, and over-wintering. Breeding sites are used for egg deposition and larval development. These sites consist of stagnant or slow-moving water with some shallow (3.9 to 7.9 inches deep) water available. Emergent vegetation (sedges) is usually present. Foraging habitat is used by all post-larval stages of frogs for prey acquisition. These sites can occur as ephemeral pools in forests and meadows; intermittent and perennial streams; edges of rivers, riparian zones, and lake margins; and marshes. Over-wintering sites provide wet, well-oxygenated habitat that is protected from freezing temperatures. While some sites may be suitable for all three habitats, in many areas, these sites are spatially separated, requiring frogs to migrate between sites within the course of a year.

Key features of source habitat for the Columbia spotted frog include the aquatic site itself, its banks and bank-side vegetation, and the conditions of the surrounding uplands. These features can be correlated with watershed pathways used to assess the conditions of the watershed. The pathways that have relevance to the Columbia spotted frog include watershed condition, water quality, channel conditions and dynamics, and flow/hydrology. No special habitat features have been identified for the Columbia spotted frog.

Individuals have been observed by the Forest Service in the riparian analysis area (Forest Service 2017c), and they were incidentally noted along the East Fork SFSR near the mine site during raptor surveys in spring and summer of 2017 (HDR 2017k). They also may occur in other potentially suitable habitat in the riparian analysis area, such as forested areas adjacent to wetlands which may be used as winter hibernacula.

3.13.4.4 Idaho Species of Greatest Conservation Need

In addition to the PNF and BNF sensitive species, SGCN identified for the State of Idaho that may occur in the SGP area also are considered. The SGCN in the Idaho Batholith Ecoregion are discussed in this section (IDFG 2017a, 2017c). Several species have already been assessed as TEPC species and focal species (including Forest Service Region 4 Sensitive and MIS) or are described in the migratory bird species section. The species not described elsewhere are listed in **Table 3.13-8**.

These SGCN were analyzed in different groups depending on the habitats they generally occupy.

General Habitats – SGCN analyzed in this group include common nighthawk, hoary bat, and little brown myotis. The general wildlife analysis area was used for these species given their occupancy across several different habitats.

Table 3.13-8 Species of Greatest Conservation Need

Common Name	Scientific Name	IDFG Identified Habitats	Species Occurs in Analysis Areas?
Western Toad	*Anaxyrus boreas*	Springs and Groundwater-Dependent Wetlands; Lakes, Ponds, and Reservoirs	Potentially in wildlife analysis area based on presence of suitable habitat.
Western Grebe	*Aechmophorus occidentalis*	Lakes, Ponds, and Reservoirs	Potentially in wildlife analysis area based on presence of suitable habitat.
Clark's Grebe	*Aechmophorus clarkii*	Lakes, Ponds, and Reservoirs	Potentially in wildlife analysis area based on presence of suitable habitat.
Sandhill Crane	*Grus canadensis*	Riverine–Riparian Forest and Shrubland; Springs and Groundwater-Dependent Wetlands; Lakes, Ponds and Reservoirs	Potentially in wildlife analysis area based on presence of suitable habitat.
Common Nighthawk	*Chordeiles minor*	Dry Lower Montane–Foothill Forest; Lower Montane– Foothill Grassland and Shrubland; Riverine–Riparian Forest and Shrubland	Potentially in wildlife analysis area based on presence of suitable habitat.
Hoary Bat	*Lasiurus cinereus*	Dry Lower Montane–Foothill Forest; Subalpine–High Montane Conifer Forest; Lower Montane–Foothill Grassland and Shrubland; Riverine–Riparian Forest and Shrubland; Springs and Groundwater- Dependent Wetlands; Lakes, Ponds, and Reservoirs	Present in wildlife analysis area based on Forest Service surveys.
Little Brown Myotis	*Myotis lucifugus*	Dry Lower Montane–Foothill Forest; Lower Montane– Foothill Grassland and Shrubland; Riverine–Riparian Forest and Shrubland; Springs and Groundwater-Dependent Wetlands; Lakes, Ponds, and Reservoirs	Present in wildlife analysis area based on Forest Service surveys.
Hoary Marmot	*Marmota caligata*	Alpine and High Montane Scrub, Grassland and Barrens	Potentially in wildlife analysis area based on presence of suitable habitat.

Source: IDFG 2017a; PNF/BNF Monitoring Data (Galloway 2019)

Riparian Species – SGCN analyzed in this group include western toad, western grebe, Clark's grebe, and sandhill crane. The riparian analysis area was used for these species due to their habitat requirements.

Alpine Species – The only SGCN analyzed in this group is the hoary marmot. This species uses subalpine and alpine areas, which overlap much of the wolverine analysis area. While the marmot has a much smaller home range compared to the wolverine, the wolverine analysis area is used for this species because of the overlap in habitat types.

3.13.4.5 Big Game Species

Big game species that are expected to be present and have habitat in the wildlife analysis area include Rocky Mountain elk and mule deer (*Odocoileus hemionus*) (Forest Service 2003a, 2010a). These big game species have been recorded in the PNF and/or BNF and also in the wildlife analysis area (Strobilus Environmental 2017). The Atlas of Idaho's Wildlife shows habitat present in the wildlife analysis area for these two species (IDFG 1997). Other big game species such as mountain goat (*Oreamnos americanus*) and moose (*Alces alces*) may be found in the wildlife analysis area in areas of suitable habitat (IDFG 1997) but are not a priority species/big game species of special interest in the PNF and BNF and no Forest Plan standards exist for managing mountain goat or moose habitat. Therefore, these species are not discussed further in this analysis.

Roadless areas are often used for wildlife migration corridors (Forest Service 2007b). Big game species also may use these remote places for calving, escape cover, summer/winter ranges, or migrations between summer and winter ranges. While there are no corridors or transition habitat in the wildlife analysis area (Forest Service 2017d), big game migration routes and transition habitat might occur in the wildlife analysis area, but studies have not been conducted yet to map these big game habitats. Big game species can be legally hunted and are managed by the IDFG. The wildlife analysis area occurs in IDFG Big Game Management Units (BGMUs) 24, 25, 26, and 27.

Rocky Mountain elk. Rocky Mountain elk are a priority species/big game species of special interest in the PNF and BNF and are found in a variety of habitats. They are habitat generalists and have been repeatedly observed in and near the wildlife analysis area. The wildlife analysis area near the mine site includes elk winter habitat and predicted elk summer habitat, which could include calving areas.

Habitat use and distribution changes seasonally for this species and can be generalized by seasonal movements. During the winter, snow forces elk to move to lower elevation winter ranges. Winter ranges are often of mixed land ownership and include portions of the PNF and BNF, as well as other public and private lands. As snow recedes, elk follow the spring green-up back to mid- and high-elevation summer ranges located in the PNF (Forest Service 2017d).

IDFG monitors and manages elk at the zone level (i.e., aggregations of several BGMUs). The wildlife analysis area is located in BGMUs that are currently meeting the IDFG bull and cow elk population objectives (IDFG 2017c). BGMUs 24 and 25 are both located in the McCall Elk Zone (the portion of Valley County in the drainage of the SFSR south of the Hall Creek drainage on the east side of the river, and south of the Bear Creek drainage on the west side of the river, except that portion of the Secesh River drainage upstream from and including Paradise Creek drainage). BGMUs 26 and 27 are in the Middle Fork Elk Zone, and are northeast and southeast of the mine site, respectively. In surrounding elk zones that are below objectives, the IDFG is attempting to "increase the populations by reducing or eliminating cow harvest, adjusting bull harvest, and intensively managing predators to reduce the impacts of predation on those herds" (IDFG 2014b, 2017c). In a 2014 survey, IDFG (2018a) estimated a population of 816 individuals in BGMU 25, which was a 41 percent increase from the 2010 survey. No survey data were available for BGMU 24. As of the 2014 survey, the population was estimated to be 5,800 individuals in the McCall Elk Zone (Forest Service 2019c).

Mule deer. Mule deer are a priority species/big game species of special interest in the PNF and BNF. Mule deer are habitat generalists and have been observed frequently in and near the wildlife analysis area. There is no designated mule deer winter range in the wildlife analysis area. Mule deer are best adapted to seral, transitional habitat types.

IDFG manages and monitors mule deer at the BGMU level. Portions of the wildlife analysis area are in legal mule deer hunting units, including BGMUs 24, 25, 26, and 27. The IDFG (2018b) estimated the mule deer population in the Weiser-McCall PMU 2 (which includes BGMU 24) to be 35,269 individuals in 2010. The population estimate for the Middle Fork PMU 3 (includes BGMU 25, 26, and 27) was 10,248 individuals in 2010 (IDFG 2018b). In 2017, the estimated abundance of mule deer was 1,279 individuals in BGMU 25, 1,319 individuals in BGMU 26, and 6,007 individuals in BGMU 27 (Forest Service 2019c).

3.13.4.6 Migratory Bird Species and Golden Eagles

Migratory birds are protected under the MBTA and golden eagles also are protected under the BGEPA. Most of the bird species discussed in the sections above are protected by the MBTA, with the exception of the mountain quail and dusky (blue) grouse. The Idaho Partners in Flight (PIF) Idaho Bird Conservation Plan (Ritter 2000) was used to identify migratory bird species and habitats in the wildlife analysis area. The Idaho Bird Conservation Plan takes a habitat-based approach to conserving bird populations in Idaho and correlated priority bird species with four habitats of highest priority (Ritter 2000). Idaho PIF priority migratory bird species are shown in **Table 3.13-9**, including the high priority habitats they represent. Two of the four high priority habitats occur in the wildlife analysis area and are shown in **Table 3.13-9**.

Table 3.13-9 Migratory Bird Species and Priority Habitats in Wildlife Analysis Area

Idaho PIF Highest Priority Habitats	Idaho PIF Priority Migratory Bird Species	Idaho PIF Priority Migratory Bird Species in Wildlife Analysis Area
Dry Ponderosa Pine / Douglas-fir / Grand Fir Forests (Aspen can occur)	White-headed Woodpecker; Flammulated Owl	White-headed Woodpecker; Flammulated Owl
Riparian	Barrow's Goldeneye; Hooded Merganser; Blue Grouse; Mountain Quail; Black-chinned hummingbird; Calliope Hummingbird; Rufous Hummingbird; Willow Flycatcher; Dusky Flycatcher; Black-billed Magpie; American Dipper; Yellow Warbler; MacGillivray's Warbler	Blue Grouse; Mountain Quail; Calliope Hummingbird; Willow Flycatcher; American Dipper

Source: Ritter 2000.

Migratory bird species known to occur in the wildlife analysis area through sightings or sign (e.g., nests, calls) include the golden eagle, Steller's jay, gray jay, Clark's nutcracker, common raven, and American dipper. Migratory bird species not documented, but assumed to occur due to suitable habitat, include the American robin, hermit thrush, Swainson's thrush, varied thrush, and red-tailed hawk.

The USFWS lists bird species of conservation concern for bird conservation regions across the U.S. (USFWS 2021b). These are species that have reduced populations or loss of essential habitat.

Table 3.13-10 lists these species for Region 10 of the USFWS; all also are protected under the MBTA. The species in this section include species of conservation concern other than the special status species previously described.

Six of the 17 bird species of conservation concern listed in **Table 3.13-10** have a reasonable possibility of occurrence in the wildlife analysis area: the calliope hummingbird, Lewis's woodpecker, olive-sided flycatcher, willow flycatcher, Cassin's finch, and Brewer's sparrow.

Table 3.13-10 Bird Species of Conservation Concern in Bird Conservation Region 10

Common Name	Scientific Name	Likelihood of Occurrence in the Wildlife Analysis Area
Brewer's sparrow	*Spizella breweri*	Potential – breeding suspected[1]
Calliope hummingbird	*Stellula calliope*	Potential – breeding has occurred[1]
Cassin's finch	*Carpodacus cassinii*	Potential, habitat present, not recorded in Valley County[1]
Lewis's woodpecker	*Melanerpes lewis*	Potential – [1], habitat present, limited documentation
Olive-sided flycatcher	*Contopus cooperi*	Potential – habitat present, not recorded[1]
Willow flycatcher	*Empidonax traillii*	Potential – habitat present (wetlands)
Black rosy-finch	*Leucosticte atrata*	Low – not recorded in Valley County[1]
Ferruginous hawk	*Buteo regalis*	Low – habitat is grasslands, not recorded[1]
Loggerhead shrike	*Lanius ludovicianus*	Low – not recorded in Valley County[1], no habitat
McCown's longspur	*Calcarius mccownii*	Low – not recorded in Valley County[1]
Swainson's hawk	*Buteo swainsoni*	Low – not recorded in Valley County[1]
Williamson's sapsucker	*Sphyrapicus thyroideus*	Low – not recorded[1], habitat present
Black swift	*Cypseloides niger*	Negligible – no habitat (high waterfalls), not reported[1]
Long-billed curlew	*Numenius americanus*	Negligible – no habitat, no record[1]
Sage sparrow	*Amphispiza belli*	Negligible – no habitat, not reported[1]
Sage thrasher	*Oreoscoptes montanus*	Negligible – no habitat, not recorded[1]
Upland sandpiper	*Bartramia longicauda*	Negligible – no habitat, no record[1]

Source: USFWS 2021b.
[1]Idaho Bird Records database (2018); other species listed in Atlas of Idaho's Wildlife (IDFG 1997).

3.14 Timber Resources

3.14.1 Introduction

Timber resources are the trees used to develop merchantable forest products. Forest products include timber products, such as lumber, paper, and firewood, and other "special forest products," such as floral greenery, Christmas trees, medicinal herbs, fungi, and other natural products (Forest Service 2017e). Timber resources in the SGP area consist of conifer tree species typically harvested to make forest products, including merchantable sawtimber-sized trees and sub-merchantable small trees.

3.14.2 Timber Resources Area of Analysis

The analysis area for timber resources encompasses the area containing saleable timber resources in which disturbance from any action alternative would occur (i.e., the area proposed for direct removal of timber). The extent of the analysis area for timber resources is more focused than the entire SGP area because large portions of the SGP area do not contain timber resources. Areas lacking timber resources include areas that have experienced wildfire in the past 20 years, areas beneath the existing transmission line, and existing roads. The analysis area includes NFS, private, and state lands, and lands managed by the BOR. NFS lands in the analysis area include portions of PNF) and portions of BNF. The analysis area for timber resources is shown on **Figure 3.14-1**. Some timber resource information is shown to extend beyond the boundaries of the analysis area in order to provide the reader with broader context for timber resources (i.e., the extent of private and state lands in the vicinity of the analysis area).

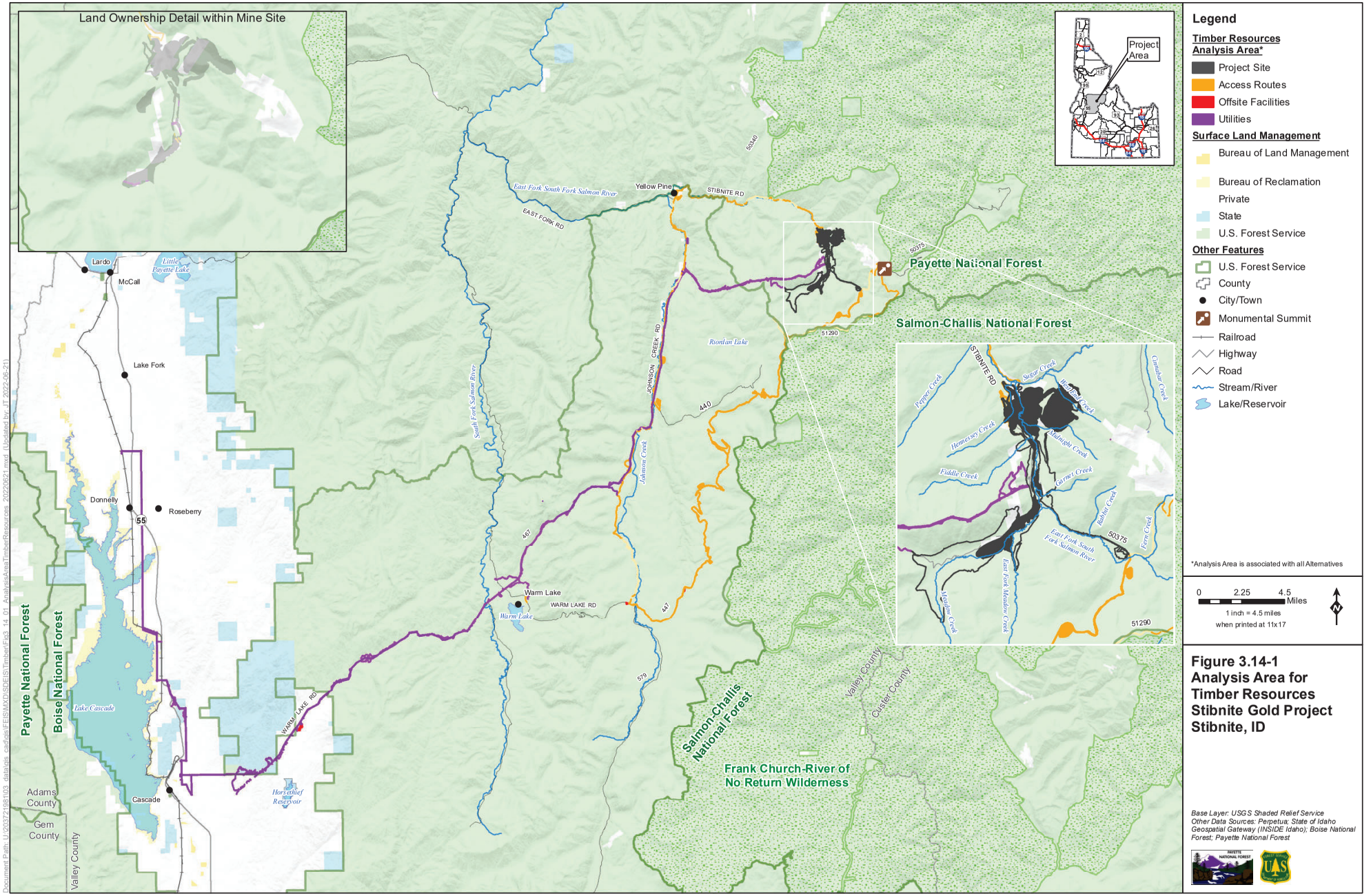
3.14.3 Relevant Laws, Regulations, Policies, and Plans

3.14.3.1 National Forest Management Act of 1976

National Forest Management Act of 1976: The NFMA of 1976 requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the NFS. The NFMA, as amended, and its implementing regulations under 36 CFR 219, consolidate and articulate Forest Service management responsibilities for lands and resources of the NFS. The land and resource management plans developed for the PNF and BNF under NFMA and its implementing regulations, their relevant timber resource provisions, and the SGP-specific plan amendments that may be required for the SGP are summarized below.

The NFMA provides that, in developing land and resource management plans, the Forest Service is to identify lands that are not suited for timber production and assure that "except for salvage sales or sales to protect other multiple-use values, no timber harvest shall occur on such lands for a period of 10 years" (Suitability for Timber Production [16 USC 1604(k)]). NFMA and its implementing regulations include requirements to periodically re-verify the location of lands that are suited for timber production at least once every 10 years. Suited lands include forested lands outside withdrawn areas, such as designated wilderness areas, lands where reforestation can be assured, and lands where timber management activities can take place without causing irreversible resource damage to soil productivity or watershed conditions (16 USC 160). Further, the NFMA states, "it is the policy of the Congress that all forested lands in the NFS shall be maintained in appropriate forest cover with species of trees, degree of stocking, rate of growth, and conditions of stand designed to secure the maximum benefits of multiple use sustained yield management in accordance with land management plans" (Reforestation [16 USC 1604(d)(1)]).

Lands suited for timber removal are evaluated to determine the range of Forest Service commercial timber sale harvest levels. The quantity of sawtimber that may be sold from the lands suited for timber on a forest is expressed as Allowable Sale Quantity (ASQ), which represents the average annual maximum volume that a forest may sell during each decade. Generally, all timber sold and harvested on suited lands during a decade must be counted against the ASQ to ensure that no more timber than allowed is removed from the suited lands. ASQ is measured in board feet and is estimated during harvest.



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The Multiple Use Act of 1955 (69 Statute 367, 30 USC 612): This Act provides for more restricted surface use rights for unpatented mining claims located in 1955 or later than those located prior to 1955. There are no unpatented mining claims within the SGP area that predate the 1955 Act (Midas Gold 2017g). FSM 2800, Minerals and Geology, Chapter 2810 Mining Claims clarifies timber ownership rights on unpatented mining claims. Section 2813.13b–Claims Validated Subsequent to Act of 1955: Such claims which otherwise come under 30 USC 612 carry the same surface rights as those described in Section 2812, except for the following modifications:

- Right to occupancy and use necessary for prospecting, mining, and processing, but not the exclusive right to the surface. Lands containing such claims are subject to the rights of the U.S. to manage and dispose of the vegetative resources, to manage other resources except locatable minerals, and to the right of the U.S., its permittees and licensees, to use so much of the surface area necessary for such purposes and for access to adjacent lands.

- Right to cut timber on the claim for mining uses and for necessary clearing, except that timber cut in the process of necessary clearing cannot be sold by the claimant. The U.S. has the right to dispose of timber and other vegetative resources."

As per statutory authority provided to the Forest Service by the Multiple-use Mining Act of 1955, the Forest Service maintains rights to timber and other vegetation resources on all unpatented claims made after 1955. For timber harvest on these lands, the Claimant must coordinate with the Forest Timber Staff well in advance (ideally 1.5 to 2 years before the need to have the trees/timber removed from the subject area).

Forest Service Handbooks and Manuals: The Forest Service has regulations and policies in FSHs (1909.60 and 2409.17) and FSMs (1920, 2430, 2470, 2471, and 2472) related to forest vegetation (Forest Service 2018b). Cutting and removal of merchantable trees from NFS lands must be consistent with Forest Service directives, particularly FSM 2400, FSM 2800, associated regulations (36 CFR 223.9, 36 CFR 223.14), and FSHs (2409.17 and 2409.26), both of which detail silvicultural activities permitted on government-owned land in the NFS.

Idaho Forest Practices Act: Administered by the IDL, this Act was enacted in 1974 to promote active forest management and ensure that the health of forest soil, water, vegetation, wildlife, and aquatic habitat is maintained during the growing and harvesting of forest trees in Idaho. The Idaho Forest Practices Act requires forest practices rules for state and private lands to protect, maintain, and enhance natural resources. To deliver timber to a mill, a timber harvest must file a "notification of Compliance" with the IDL, indicating an intention to follow the rules pertaining to the Idaho Forest Practices Act and follow fire hazard prevention measures of the IDAPA/Idaho Administrative Code 20.02.01. Notable rules include requirements related to restocking, stream protection, logging operations, and soil protection (IDL 2018).

The Idaho Mined Land Reclamation Act (1971)**:** The IDL also administers the Idaho Mined Land Reclamation Act, which requires reclamation of affected lands to a productive condition, including both lands affected by surface mining and the surface effects of underground mining. Incorporated into state statute under Title 47 "Mines and Mining," Chapter 15 "Mined Land Reclamation," the law includes procedures for reclamation that include plugging drill holes, and cross-ditching abandoned roads to avoid

erosion (Section 47-1509); and for vegetation planting that specify an operator shall plant vegetation species on affected lands "that can be expected to result in vegetation comparable to the vegetation that was growing on the area occupied by the affected lands prior to exploration and mine operations" (Section 47-1510) (IDL 2019).

The Valley County Comprehensive Plan: This comprehensive plan includes goals and objectives for the management and use of resources in Valley County, including natural resources such as timber. Goal I for "Economic Development" is "to promote and encourage activities which will maintain a strong, diversified economy." Objectives under this Goal include "maintain the important role of the timber industry, tourism, outdoor recreation, mining and agriculture in the local economy and "Support 'multiple use' of public lands." Goal IV for Natural Resources is "to maintain sustainable commercial harvesting and use of renewable timber land resources." Goal V for Natural Resources is "to assure mining remains a viable element in Valley County's economy." Timber receipts as a source of revenue for the county has ceased and declines in the timber industry have created a hardship for the county as timber receipts played an important role in funding county schools and roads (Valley County 2018a).

The Payette Forest Plan (Forest Service 2003a), and the Boise Forest Plan (Forest Service 2010a) provide management prescriptions designed to realize goals for achieving desired condition for timber and include various objectives, guidelines, and standards for this purpose. To achieve the desired outcomes and conditions for both land stewardship and public service (i.e., desired conditions), the forest plans include management standards for timber resources at three scales: forest-wide level, more specific and focused MA level, and MPC level.

Generally, the desired conditions for timber resources are conditions in which a forest meets its timber sale program ASQ goals while managing lands suited for timber harvest in conformance with forest plan goals and strategies. Both forest plans evaluate available forestland within their respective boundaries to determine suitability for timber production and reflect the results of that evaluation by demarcating MPCs that allow timber harvest within areas containing suited acres. Despite the presence of timber species, if land is determined to be physically unsuited for timber production because of the inability to ensure adequate restocking or the potential for irreversible damage to soils or watersheds, timber production is removed as an intended use of that land. However, some exceptions for the removal of timber resources on unsuited lands are explicitly noted. In PNF MA 13, MPCs 3.1, 3.2, and 4.1c are identified as not suited for timber production; however, the Payette Forest Plan states that on these lands forest vegetation management actions, which include removal of timber resources, may be undertaken to "support the achievement of desired conditions or other resource objectives" consistent with the management goals laid out for them (Forest Service 2003a).

3.14.4 Affected Environment

Timberland vegetation in central Idaho is dynamic, with changes occurring through both natural processes and timber management practices, and therefore the distribution and composition of timber resources also are dynamic. Natural disturbance processes include fires, windstorms, landslides, and insect and disease outbreaks. Management of timber forest vegetation includes timber harvest, planting, thinning, and other timber stand improvement activities, as well as prescribed burning. This section describes the existing conditions for timber resources in the analysis area, including timber and special forest products. This

summary is based on best available vegetation and timber ownership information from the Forest Service and USGS as of August 2019.

3.14.4.1 Timber Vegetation

As described in **Section 3.10**, the Forest Service maps existing vegetation communities and updates their maps periodically; however, these data are only available for NFS land. The existing Forest Service vegetation mapping system, VCMQI, reflects the forest-specific dominance type phases found on NFS land and was used to describe seral-stage timber resource composition in forested areas on NFS lands in the analysis area.

Private, state, and other federal lands in the analysis area, that are outside the boundaries of the PNF or BNF, are not characterized by Forest Service vegetation mapping, and therefore timber vegetation conditions were extrapolated from publicly available datasets and aerial imagery (Perpetua 2021a).

Existing vegetation communities in the analysis area include many developed and natural communities that generally are divided into broad lifeform-type categories. Fires, both natural and man-caused, have frequently occurred in the analysis area and surrounding forests, and much of the analysis area is currently mapped as burned herbaceous (grasses and forbs), burned sparsely vegetated, and burned forest shrubland. The lifeform type "Coniferous Forest" is defined as being dominated by conifer species and includes all the vegetation types that are dominated by timber species. In general, the existing Coniferous Forest vegetation communities are those typical of high mountain regions in Idaho and the inland northwestern U.S. The most common unburned, existing Coniferous Forest vegetation dominance types in the analysis area, which are used as a proxy for timberland vegetation in the absence of timber-specific mapping, are lodgepole pine forests, subalpine fir forests, Douglas-fir forests, Ponderosa pine forests, and Engelmann spruce forests (Forest Service 2014b, 2014c, 2016b, 2017b).

Timberland vegetation communities in and immediately adjacent to the analysis area are shown in **Figures 3.14-2a** through **3.14-2d**. Although timber outside of the analysis area would not be affected by SGP activities, it is shown to provide a larger, landscape-wide context.

3.14.4.2 Timber Resources

Many conifer tree species that are commonly harvested for commercial use are found in the analysis area. Coniferous Forest communities dominated by these species, either in monotypic (single species) stands or multi-species stands, are considered to contain timber resources. Timber resources (both sawtimber and other tree-based forest products) include materials used to develop timber products as well as "special forest products."

Timber resources in the analysis area are derived from trees traditionally used for forest products and include the following merchantable species of conifers:

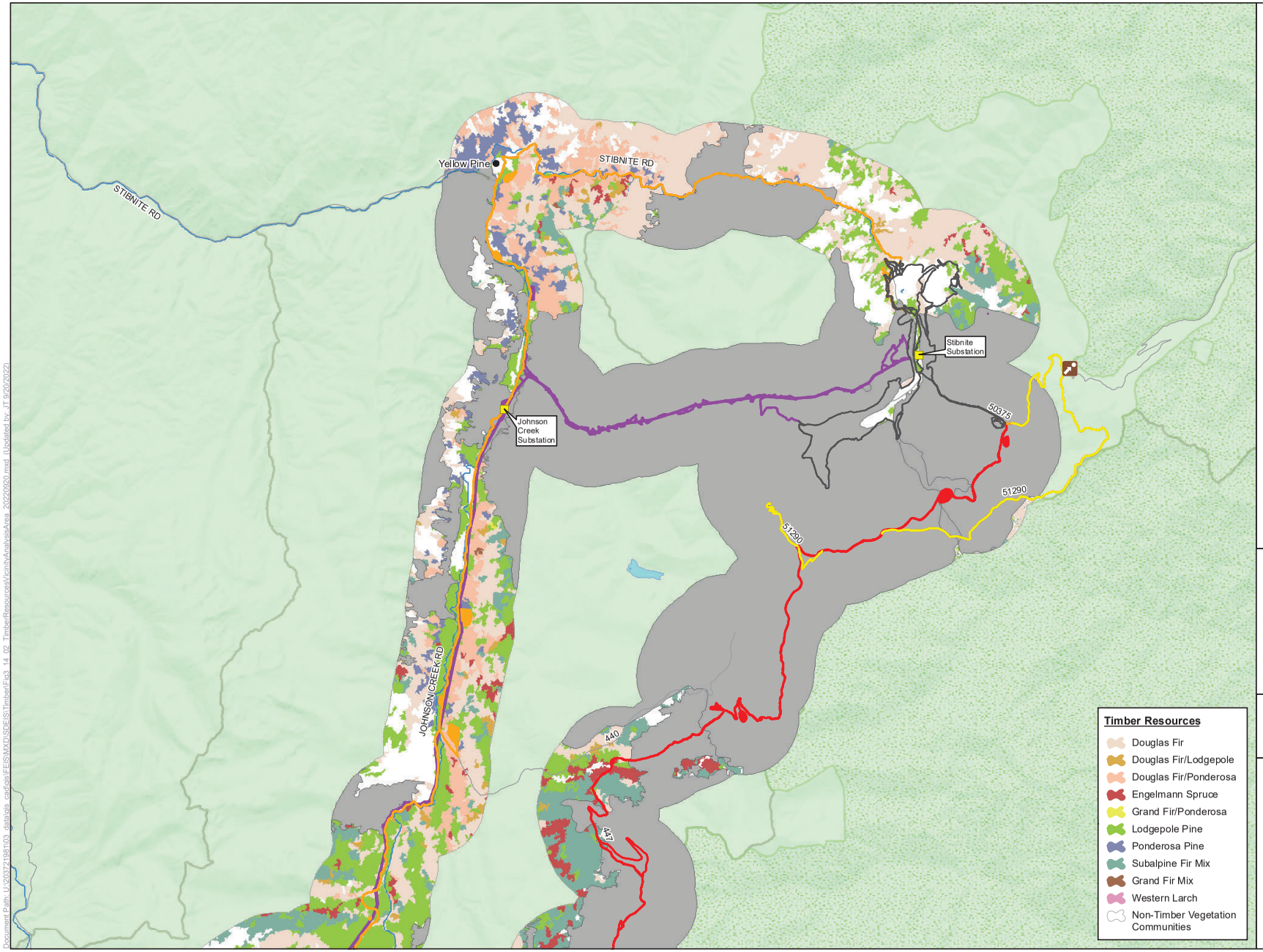
- Douglas-fir
- Engelmann spruce
- Lodgepole pine
- Ponderosa pine
- Grand fir
- Subalpine fir
- Western larch
- Subalpine larch

The above list excludes pinyon, limber pine, juniper, and whitebark pine (a federally threatened species) because they typically are not harvested for sale in the PNF or BNF (Witt et al. 2012), and vegetation communities dominated by these species are not included in the analysis area. However, in the event individuals of these species or other non-timber conifer species are encountered during SGP implementation they would be processed as timber species and included in merchantable volumes.

Special forest products, which are derived from sub-merchantable trees, sold from the PNF and BNF include Christmas trees, transplants (e.g., trees, shrubs, or herbaceous plants), fuelwood, and posts and poles (Forest Service 2017e). Special forest products also are called non-convertible products because they are products that are not converted into board foot or cubic foot measure. The analysis area contains a mix of sawtimber and sub-merchantable trees, and while sawtimber is reported in volume of wood as well as acres within the analysis area, sub-merchantable trees or "special forest products" are reported in terms of the acres they occupy.

3.14.4.3 Timber Extent

To determine the extent of timber resources in the analysis area, existing spatial vegetation mapping data from various sources, were combined to create a single consistent coverage in GIS. Data used to determine the extent of timber resources were collected from a variety of sources, including existing vegetation geographic information system data from the PNF and BNF (Forest Service 2016b, 2017b), publicly available LANDFIRE vegetation classification data (USGS 2019), land ownership data managed by the Bureau of Land Management (BLM) (2017), management prescription boundaries from the PNF and BNF, and mine claim data provided by Midas Gold. Once the vegetation community coverage dataset was complete, the subset of the data containing conifer-dominant vegetation communities was extracted, because it represents the potential timber resources in the analysis area. Areas that do not support timber resources—either because the timber was recently removed (i.e., burned in a fire within the last 20 years) or not realistically present (i.e., within existing roads and within the existing. transmission line corridor) were then removed from the potential timber resources layer. The result provides the basis of the estimates of timber extent in the analysis area.



LEGEND

Burned Area (2000-2015)**

Project Area,

- Project Site
- Access Routes, Johnson Creek
- Access Routes, Burntlog Route
- Utilities
- Existing Access Road, Burntlog Route

Utilities

- New Substation

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Road
- Stream/River
- Lake/Reservoir

Timber Resources

- Douglas Fir
- Douglas Fir/Lodgepole
- Douglas Fir/Ponderosa
- Engelmann Spruce
- Grand Fir/Ponderosa
- Lodgepole Pine
- Ponderosa Pine
- Subalpine Fir Mix
- Grand Fir Mix
- Western Larch
- Non-Timber Vegetation Communities

**Burned areas are excluded from the Timber Analysis Area

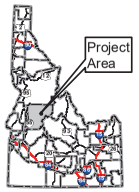


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Figure 3.14-2a
Timber Resources in the Vicinity of the Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

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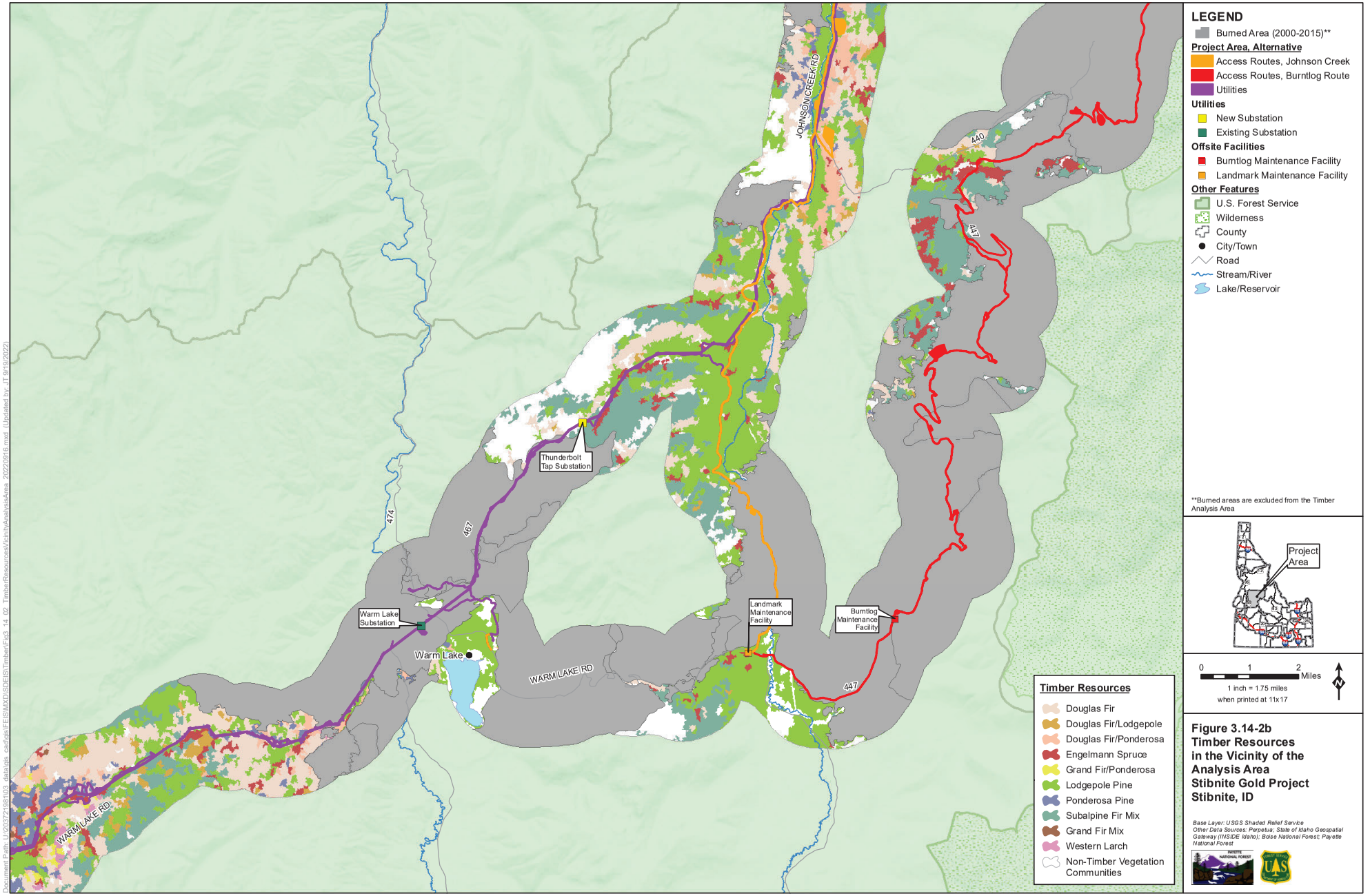


Figure 3.14-2b
Timber Resources in the Vicinity of the Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

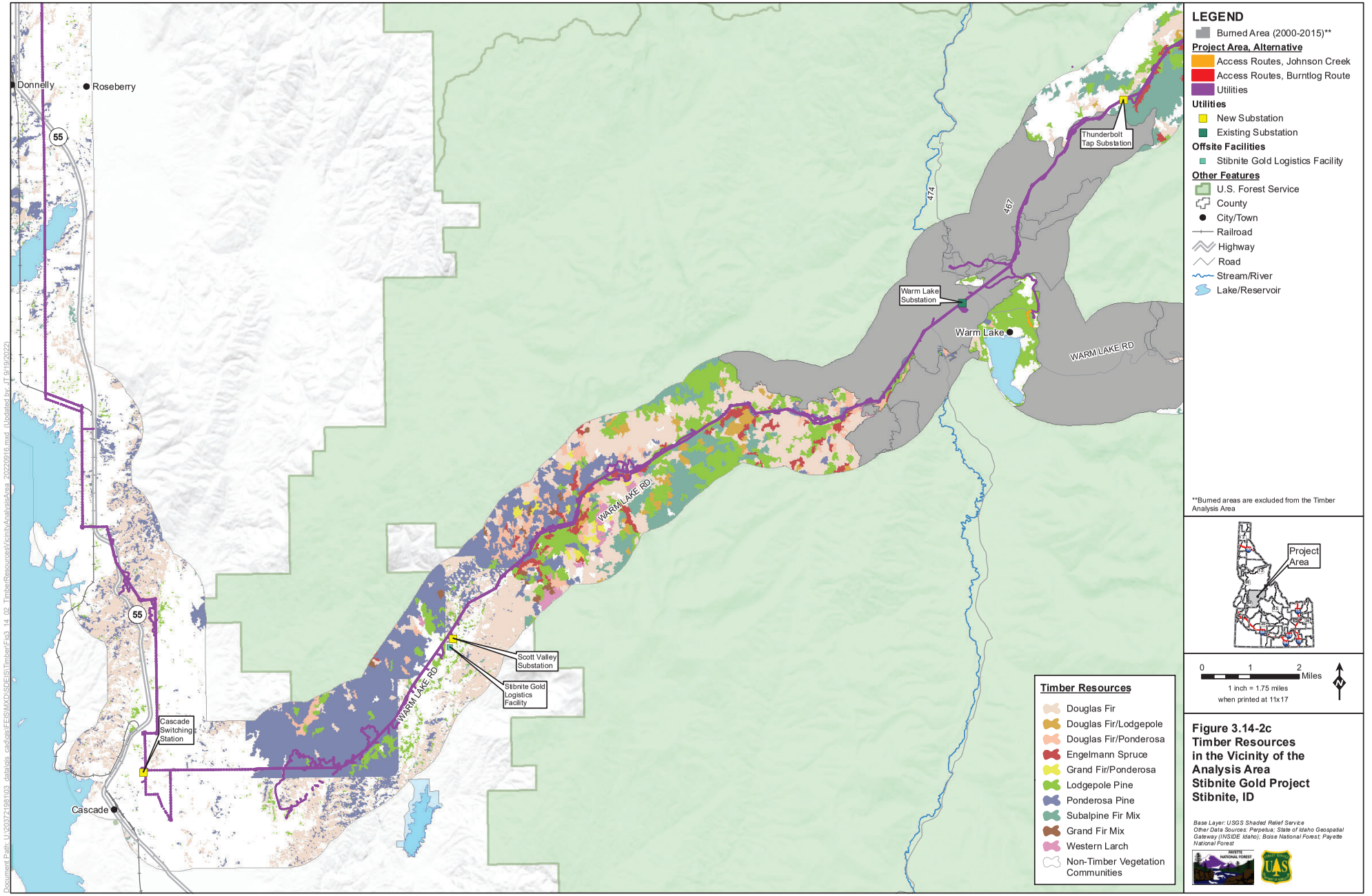
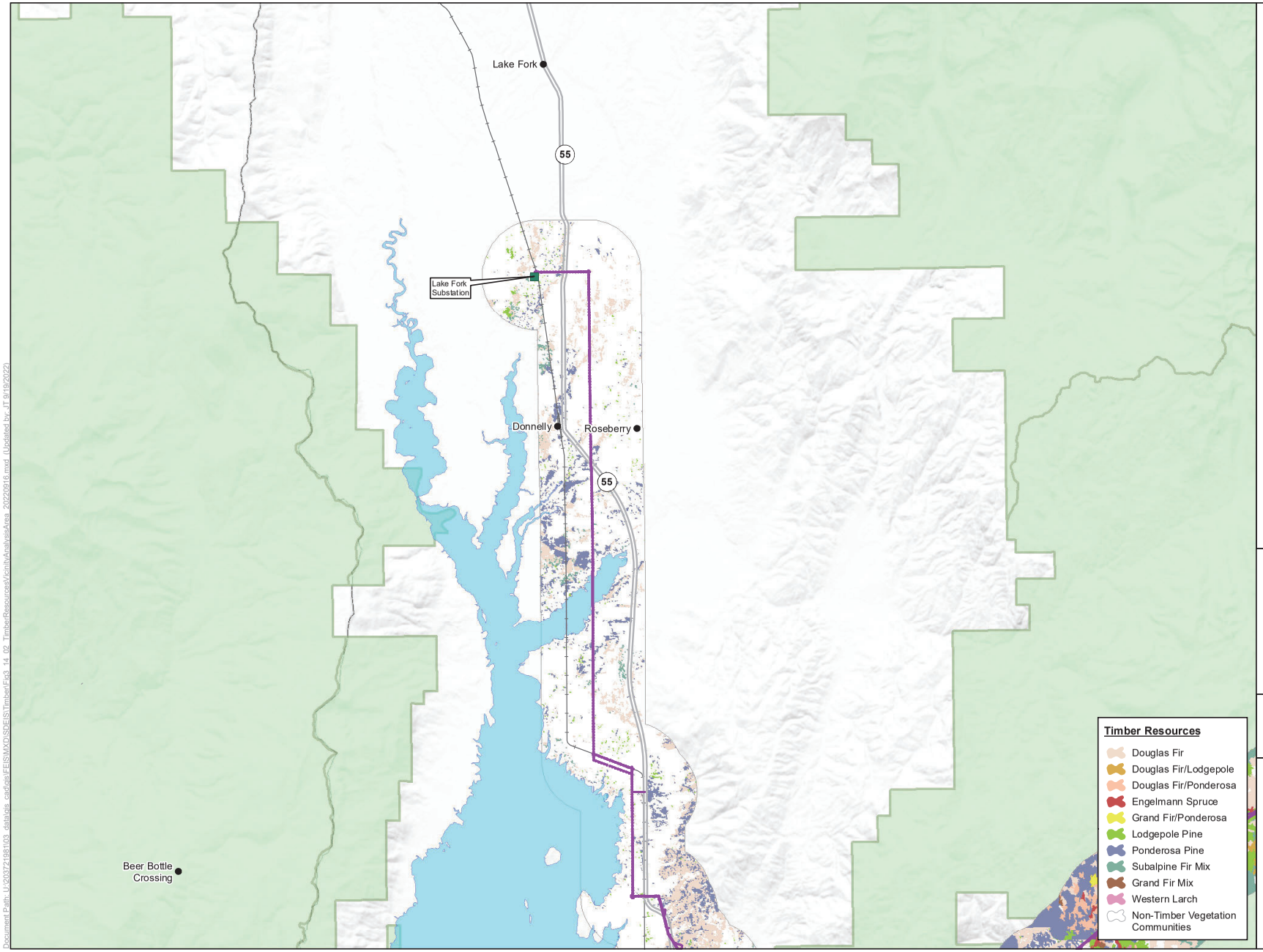


Figure 3.14-2c
Timber Resources in the Vicinity of the Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest



LEGEND

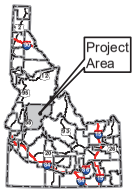
Project Area, Alternative
- Utilities

Utilities
- Existing Substation

Other Features
- U.S. Forest Service
- County
- City/Town
- Railroad
- Highway
- Road
- Lake/Reservoir

Timber Resources
- Douglas Fir
- Douglas Fir/Lodgepole
- Douglas Fir/Ponderosa
- Engelmann Spruce
- Grand Fir/Ponderosa
- Lodgepole Pine
- Ponderosa Pine
- Subalpine Fir Mix
- Grand Fir Mix
- Western Larch
- Non-Timber Vegetation Communities

**Burned areas are excluded from the Timber Analysis Area



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1 inch = 1.75 miles when printed at 11x17

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Figure 3.14-2d
Timber Resources in the Vicinity of the Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

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3.14.4.4 Timber Ownership

Timber resource ownership varies across the analysis area and determines the standards used to manage timber resources. Timber resources in the analysis area are found on land managed by the Forest Service, privately owned land, state-owned land, and land managed by the BOR (BLM 2017; Forest Service 2016b) (**Table 3.14-1**). NFS land in the analysis area includes unclaimed areas and unpatented claims, both of which contain timber resources. Timber on unclaimed areas and unpatented claims within NFS land is managed by the Forest Service subject to applicable claimant rights associated with unpatented claims. Timber on patented claims is considered "private," like timber on other private lands in the analysis area. Timber that is managed by the Forest Service is subject to applicable Forest Service management directives, while private timber is not. Privately owned timber is subject to guidelines set by the State of Idaho as well as Valley County. Timber on state lands follow guidelines set by the State of Idaho for timber utilization.

Table 3.14-1 Timber Resource Ownership and Mining Claim Status Across the Analysis Area

Underlying Land Ownership (Manager)	Mining Claim Status[1]	Acres of Timber Resources[2]	Percent of the Analysis Area[3]
Public (BNF)	Unpatented	10.9	1
Public (BNF)	Unclaimed	520.3	61
Public (PNF)	Unpatented	158.0	18
Public (PNF)	Unclaimed	11.9	1
Public (SCNF)	Unpatented	0.2	<1
Public (Forest Service)	**(Total)**	**701.3**	**82**
Private	Patented	35.3	4
Private	Unclaimed	68.7	8
Private	**(Total)**	**104.0**	**12**
State of Idaho	Unclaimed	49.8	6
State of Idaho	**(Total)**	**49.8**	**6**
(ALL Land Management)	**Grand Total**	**855.1**	**100**

Source: Forest Service 2003a, 2010a; Perpetua 2021a.

[1]"Patented" refers to timber on patented claims, which is privately owned by the claimant; "unpatented" refers to unpatented claims. According to information provided by Midas Gold all of the SGP claims in the analysis area were staked after 1955 (Midas Gold 2017g) and therefore all timber on these lands is managed by the surface land management agency (not by the claimant); "Unclaimed" refers to acreage lacking claim information in the available data, and it is assumed to contain timber that is managed by the surface land management agency/owner.

[2]Acres are based on the timber resources (excluding burned areas) in the analysis area, which consists of the combined footprints of the 2021 MMP and Johnson Creek Route Alternative.

[3]"Percent of the Analysis Area" represents the portion of the analysis area covered by different land management entities and mining claim distinctions, calculated as a percent of the extent of the entire analysis area.

Forest Service Timber

On NFS lands, Forest Service commercial timber sale program harvest levels are set geographically and reported in volume (reported in thousand board feet [MBF]) of sawtimber allowed to be harvested for sale (Forest Service 2012b). Forest Plan direction for the forest wide ASQ, wood product extraction goals, and Total Sale Program Quantity (TSPQ) also are reported in MBF (**Table 3.14-2**). The Payette and Boise Forest Plans do not provide direction for an ASQ of special forest products on NFS lands. However, because areas occupied by sub-merchantable timber resources are considered timberland vegetation, the removal of sub-merchantable timber constitutes a removal of timberland resource area from future production.

Table 3.14-2 Timber Harvest Goals from Payette and Boise Forest Plans

Timber Harvest Goal Metrics	Payette Forest Plan[1]	Boise Forest Plan[2]
Area of Suited Timberlands, Forest Wide	330,000 acres	527,500 acres
ASQ	32,500 MBF	28,200 MBF
Wood Product Extraction Goal	7,800 MBF	11,500 MBF
TSPQ	40,300 MBF	39,700 MBF

Source: Forest Service 2003a, 2010a.
[1]ROD for the FEIS and Revised Land and Resource Management Plan (Revised Plan). McCall, ID. Table II-2, page II-30. (Forest Service 2003a).
[2]Boise Forest Plan 2003-2010 Integration. Lowman, ID. Table II-2, page II-31. (Forest Service 2010a).

As described in **Section 3.14.3.1**, the Payette Forest Plan and Boise Forest Plan divide their lands into MAs, which are further subdivided geographically to account for different intended uses of different landscape areas. The subdivisions, or MPCs, specify the intended uses of a landscape unit, including whether timber harvest is an allowable use. If timber harvest is intended in an MPC, the unit will include "suited timberland" acreage (**Table 3.14-3**). Timber vegetation in the analysis area is found in one MA in the PNF: MA 13–Big Creek/Stibnite; and four MAs in the BNF: MA 17–North Fork Payette, MA 19–Warm Lake, MA 20–Upper Johnson Creek, and MA 21–Lower Johnson Creek. In the PNF, timber resources in the analysis area fall into two MPCs, neither of which include timber harvest as an intended use: MPC 3.1–Passive Restoration and Maintenance of Aquatic, Terrestrial, and Hydrologic Resources; and MPC 3.2–Active Restoration and Maintenance of Aquatic, Terrestrial, and Hydrologic Resources. In the BNF, timber resources in the analysis area fall within portions of MPCs 3.1 and 3.2, as well as MPC 4.2–Roaded Recreation Emphasis, and MPC 5.1–Restoration and Maintenance Emphasis in Forested Landscape. MPCs 5.1 and 4.2 in the BNF contain suited timberlands; therefore, timber removal and sale are allowed under special conditions and may contribute towards the ASQ for the BNF. MPCs 3.1 and 3.2 in the BNF do not contain suited timberlands. Timber resources in the portion of the analysis area containing suited timberlands (MPC 5.1 and MPC 4.2) are shown in **Figures 3.14-3a-c**.

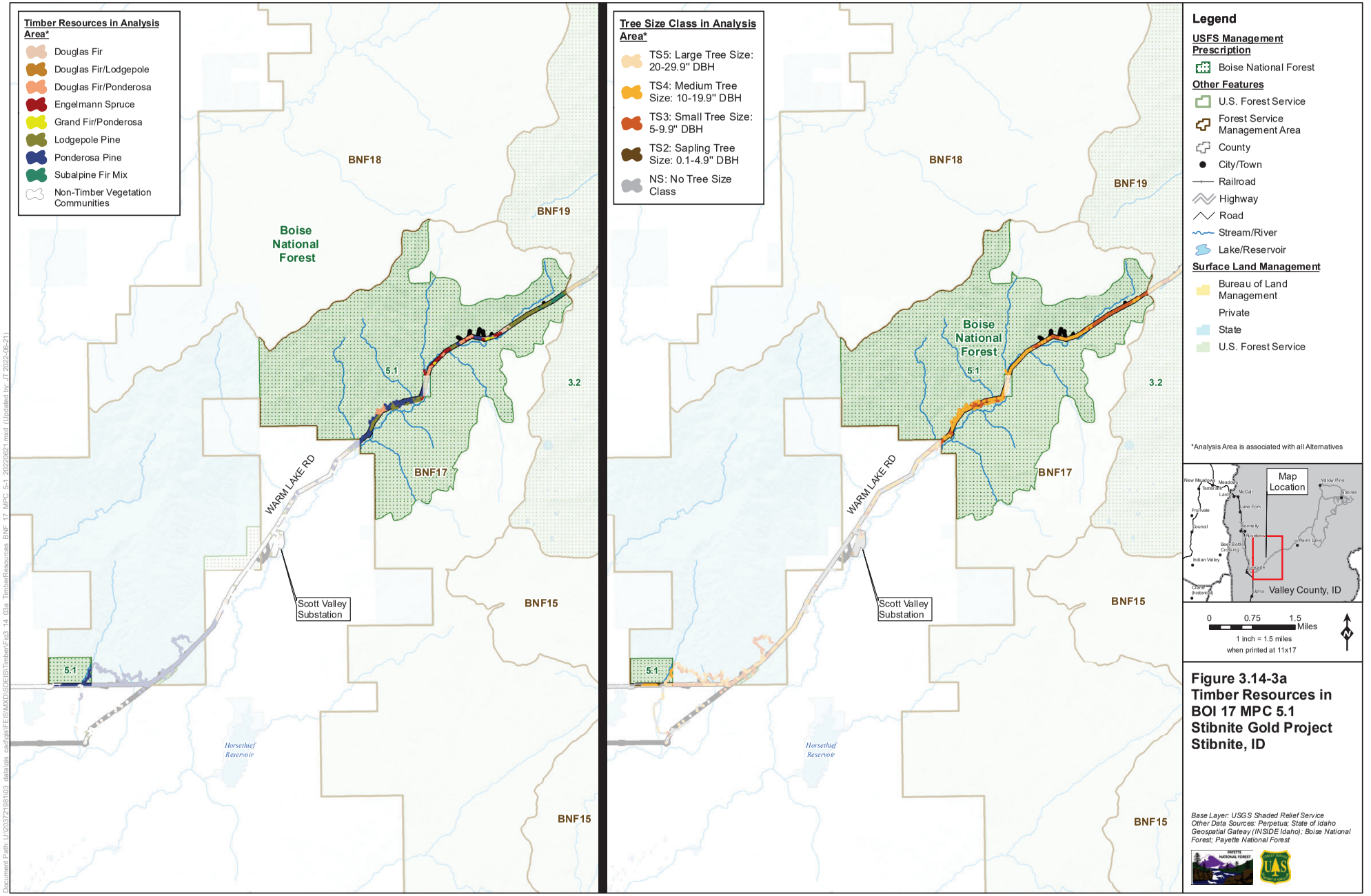


Figure 3.14-3a
Timber Resources in BOI 17 MPC 5.1 Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

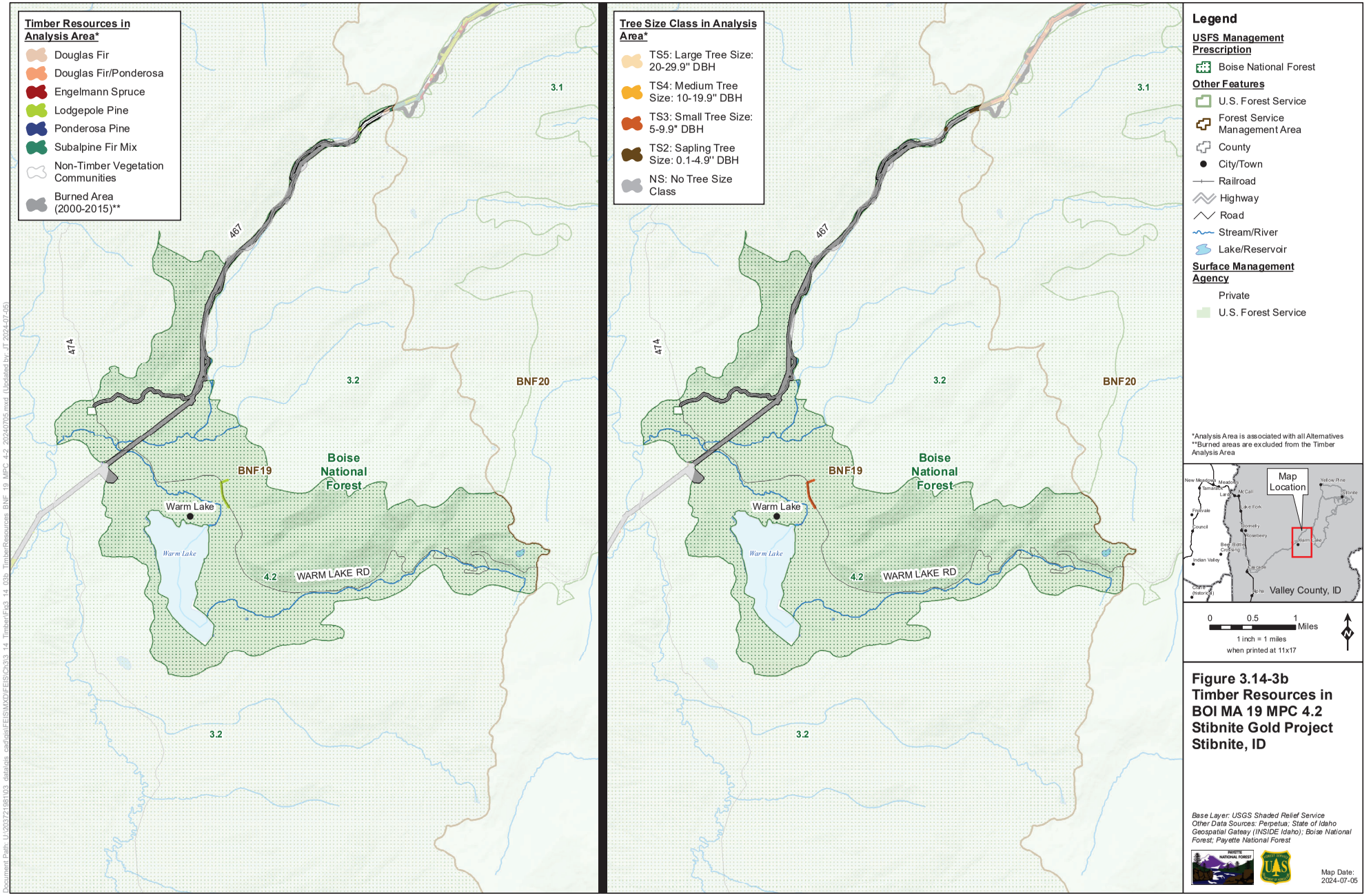


Figure 3.14-3b
Timber Resources in BOI MA 19 MPC 4.2 Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateay (INSIDE Idaho); Boise National Forest; Payette National Forest

Map Date: 2024-07-05

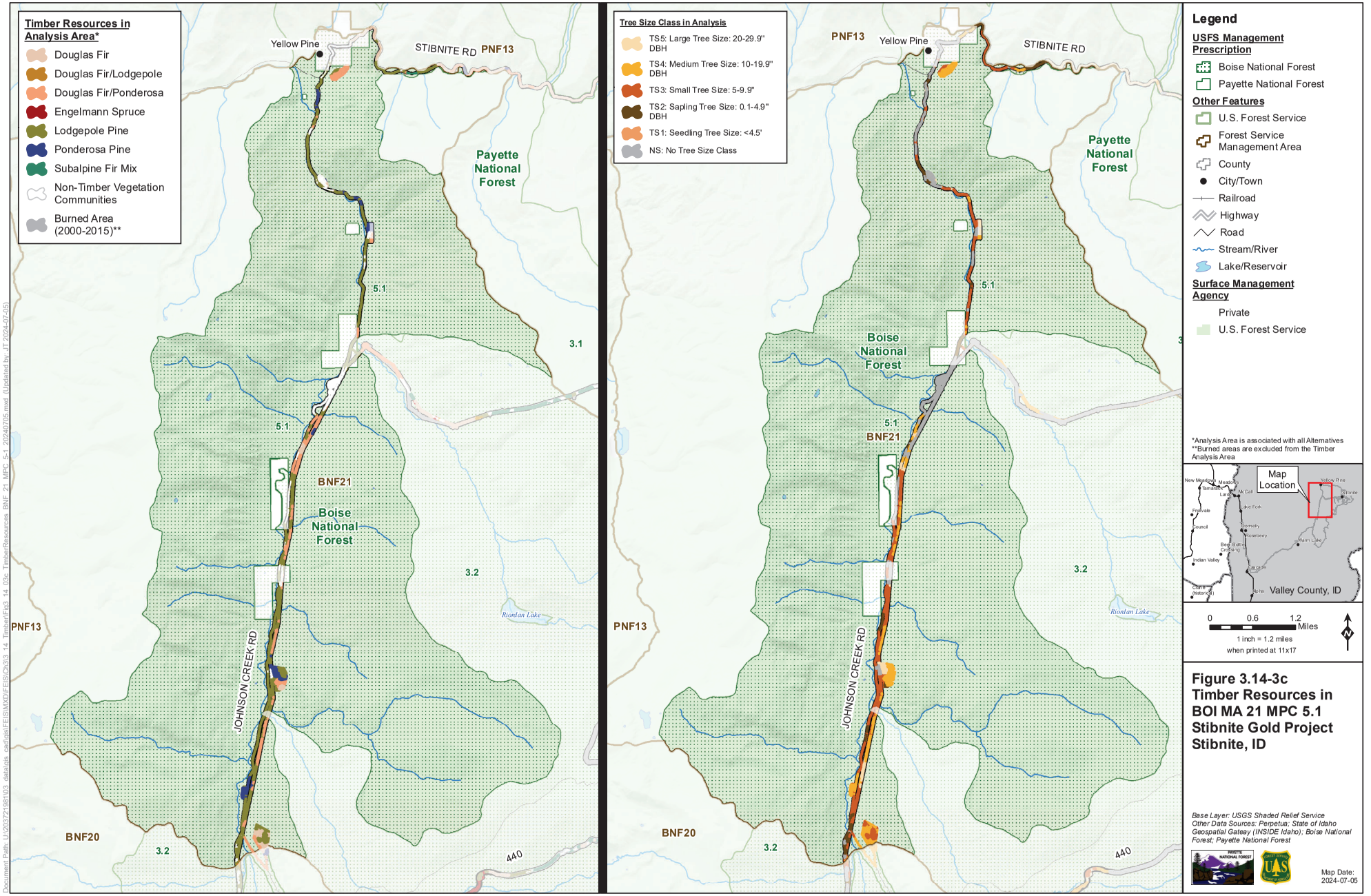


Figure 3.14-3c
Timber Resources in BOI MA 21 MPC 5.1 Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateay (INSIDE Idaho); Boise National Forest; Payette National Forest

Map Date: 2024-07-05

Table 3.14-3 Timber Vegetation on Forest Service Management Areas by Management Prescription Code

Forest Plan MPC	Acres Designated as Suited for Timber Production[1]	Approximate Acres of Timber Vegetation per MPC[2]
PNF 13-Big Creek-Stibnite (3.1)	0	17,553
PNF 13-Big Creek-Stibnite (3.2)	0	11,126
Total PNF	**0**	**28,679**
BNF 17-North Fork Payette River (5.1)	34,300	5,264
BNF 19-Warm Lake (3.2)	0	25,729
BNF 19-Warm Lake (4.2)	4,800	2,140
BNF 20-Upper Johnson Creek (3.1)	0	31,424
BNF 20-Upper Johnson Creek (3.2)	0	15,648
BNF 21-Lower Johnson Creek (3.2)	0	11,093
BNF 21-Lower Johnson Creek (5.1)	16,000	14,533
Total BNF	**55,100**	**105,832**

Source: Forest Service 2003a, 2010a, 2016b, 2017b.
[1]Acres designated as suited for timber production are based on reported acreages in the Payette Forest Plan and Boise Forest Plan.
[2]Acres of timber vegetation in the Management Areas are based upon vegetation mapping provided by the PNF and the BNF.

State, Other Federal, and Private Timber

Unlike Forest Service timber resources, there is no NFMA land and resource management plan guiding the location and amount of timber resources intended to be harvested from the remainder of the analysis area. The State of Idaho Forest Practices Act, which would guide timber harvest from commercial timberlands on the other federal, state-owned, and private portions of the analysis area, sets requirements for timber harvest planning, harvest operation, and reporting only (IDL 2018). The extent or presence of commercial timberlands in these other areas of the analysis area is not readily available information, and not considered significant or necessary for the analysis of the effects of the SGP.

3.15 Land Use and Land Management

3.15.1 Introduction

The SGP primarily consists of NFS lands on the PNF and the BNF with some private, state, and BOR lands also included. Land use in the analysis area consists of mining uses, utilities, roads, agriculture, residential, fisheries, timber, tribal, recreational, and special uses. The discussion of existing conditions provides a land use context for the collective SGP area that could be impacted by the action alternatives.

3.15.2 Land Use and Land Management Area of Analysis

The analysis area for land use and land management includes the combined footprint of all potential components for the SGP, including the Operations Area Boundary, access and haul roads (proposed and existing), utility infrastructure (proposed and upgraded), and off-site facilities (**Figure 3.15--1**).

3.15.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and implementing regulations apply to land use and management for the Proposed Action and Alternatives. The following is a list of laws, regulations, policies, and plans at the federal, state, or local level pertaining to Land Use and Land Management.

1872 Mining Law (as amended): Statutory right to search for, develop, and extract mineral deposits on federal land open to mineral entry. 30 U.S.C. 22 et seq.

Organic Administration Act of 1897: Authorizes the establishment of National Forest Reserves to improve and protect the condition of forested areas of the U.S., and to provide a continuous supply of timber for the use and necessities of the public. The Act provides for lands that have been open for mineral entry and location under the mining laws to remain subject to such entry and location. 16 U.S.C. 473-475, 477-482, 551.

Mining and Minerals Policy Act: Established a national mining and minerals policy which confirms the national interest to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources.

Multiple Use Act of 1955: Unpatented mining claims prior to 1955 provide the owner the rights under FSM 2800. 30 U.S.C. 612.

National Forest Roads and Trails Act of 1964: Authorized and established procedures related to ROWs, easements, construction, and agreements for construction and maintenance of an adequate system of roads and trails in and near National Forests. 16 U.S.C. 532-538.

Bureau of Reclamation: A use authorization is required in accordance with 43 CFR 429.3 for certain uses or activities on BOR land. The BOR is responsible for authorizing or modifying the transmission line ROW on their lands.

Wild and Scenic Rivers Act: Preserves certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition.

National Environmental Policy Act of 1969: Requires federal agencies to analyze the expected environmental impacts of the agency's Proposed Action.

Payette Forest Plan (Forest Service 2003a) and Boise Forest Plan (Forest Service 2010a): Provide management prescriptions designed to realize goals for achieving desired condition for geologic resources and geotechnical hazards and include various objectives, guidelines, and standards for this purpose. All uses of NFS lands, improvements, and resources, except those provided for in the regulations governing the sale and disposal of timber and other forest products (36 CFR 223), minerals (36 CFR 228), and range management, including the grazing of livestock (36 CFR 222), are designated "special uses" and must be approved by an authorized officer (Title 36 CFR 251.50[a]).

Revised Statute 2477: The public ROW on federal lands is administered per Revised Statute 2477. Revised Statute 2477 public ROWs are under the jurisdiction of Valley County. Though Revised

Statute 2477 easements in the SGP area have been asserted by Valley County, none have been adjudicated.

Idaho Roadless Rule: Established federal management direction for designated Roadless Areas in the State of Idaho to protect their important characteristics. Locatable mining activities are not affected by the Rule. 36 C.F.R. 294 Subpart C; 36 C.F.R. 294.25(b).

Idaho Mined Land Reclamation Act: Surface and underground mining of minerals for ultimate or immediate sale, in either the natural or processed state, must have an approved reclamation plan. I.C. § 47-1501.

State of Idaho Local Land Use Planning Act (1972): Promotes the health, safety, and general welfares of the people of the State of Idaho. I.C. § 67-6502.

Valley County Comprehensive Plan: Aims to ensure mining remains a viable element in Valley County's economy and to promote and encourage activities that will maintain a strong and diversified economy through maintaining the important role of the local timber industry, tourism, outdoor recreation, mining, and agriculture (Valley County 2018a). Per Valley County Code Table 3-A, Section 9-3-1(6)(c)(1), mineral extraction regulated by state or federal agencies is identified as a permitted industrial use. Other uses subject to a conditional use permit that could pertain to the SGP include extractive industry uses; public utility supply, transfer, ore relay facilities including administration; and warehousing of equipment and products. Valley County Code Section 9-5A-2 identifies standards for roads and driveways, specifying public roads to be designed and constructed in accordance with Title 10 of the Valley County Code and in accordance with "Construction Specifications and Standards for Roads and Streets in Valley County, Idaho" (Valley County 2018a).

City of Cascade Comprehensive Plan: Provides goals, objectives, and action items pertaining to land uses in the "area of city impact." Goals and objectives to support development of energy services could be applicable to improvements in the existing transmission line corridor and/or widening of the ROW (City of Cascade 2018).

City of Donnelly Comprehensive Plan: Describes the desired future land use classifications, including zoning, in the "area of city impact." Objectives and policies to support development of energy services could be applicable to improvements in the existing transmission line corridor and/or widening of the ROW (City of Donnelly 2011).

The Payette Lakes Supervisory Area of the Idaho Department of Lands: Has jurisdictional authority over exploration- and mining-related activities in its administrative area (IDAPA 20.03.02).

State Endowment Lands: The existing transmission line is authorized to IPCo, and a portion of this ROW intersects State Endowment Lands. The IDL is responsible for granting or modifying the transmission line ROW on state-owned lands, if required.

3.15.4 Affected Environment

This section discusses land use and land management specific to the analysis area. Existing land use and land management, including existing access roads, utilities, and off-site facilities, are shown in **Figure 3.15-1**.

3.15.4.1 Land Ownership and Status

The SGP is composed of lands administered by the Forest Service (the PNF Krassel Ranger District and BNF Cascade Ranger District), the State of Idaho, BOR, and private lands. **Table 3.15-1** summarizes land ownership in the SGP area for all acres affected by each of the alternatives.

Table 3.15-1 Land Ownership in the SGP Area Affected by Alternatives

Land Ownership	2021 MMP Acres	Percent of 2021 MMP SGP Area	Johnson Creek Route Alternative Acres	Percent of Johnson Creek Route Alternative SGP Area
Private	819.4	25	828.1	27
State	62.1	2	62.1	2
Boise National Forest	933.2	29	820.3	27
Payette National Forest[1]	1,438.7	44	1,372.2	44
Bureau of Reclamation	12.5	<1	12.5	<1
Total[2]	3,265.9	100	3,095.2	100

[1] Approximately 14 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest. Does not account for 65 acres of temporary surface exploration pads and roads on Payette National Forest (see Chapter 2 acreage tables).
[2] Subtotals may not add to totals due to rounding.

Patented and Unpatented Mining Claims

The analysis area includes both patented and unpatented mining claims in the PNF Krassel Ranger District and the BNF Cascade Ranger District. Affiliates of Perpetua own or control patented and unpatented mill site and lode claims in the Operations Area Boundary (**Table 3.15-2**). No land ownership has been conveyed for unpatented claims (Forest Service 2013a). Affiliates of Perpetua own the patented claims) in the Operations Area Boundary except for approximately 21 acres of patented Cinnabar Claims for which Perpetua holds an option.

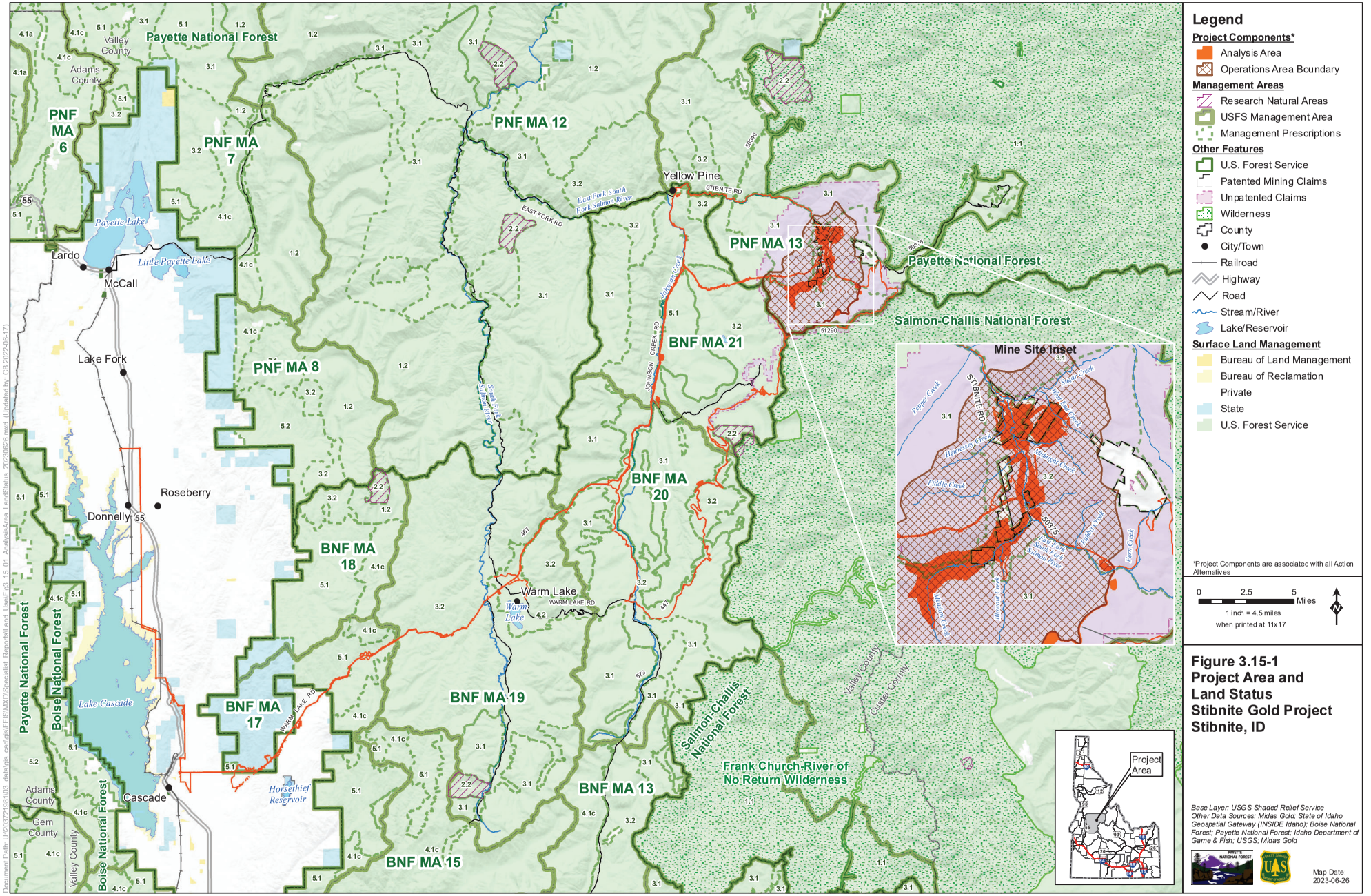


Figure 3.15-1
Project Area and Land Status
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Midas Gold; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest; Idaho Department of Game & Fish; USGS; Midas Gold

Map Date: 2023-06-26

The Forest Service oversees mineral activities (e.g., exploration and mining) on the surface of unpatented mining claims. The Payette Lakes Supervisory Area office of the IDL has administrative jurisdiction on mining activities on patented mining claims within the Operations Area Boundary.

Table 3.15-2 Patented and Unpatented Mining Claims in the Operations Area Boundary

Mining Claims	Quantity
Patented Claims (Acres)	777.1
% Patented Claims	*5%*
Unpatented Claims (Acres)	13,437.2
% Unpatented Claims	*95%*
Unclassified (Acres)	6.4
Total Claims Area (Acres)[1]	14,220.8

[1] Subtotals may not add to totals due to rounding.

3.15.4.2 Land Use

Operations Area Boundary

The proposed Operations Area Boundary contains approximately 14,221 acres (**Table 3.15-3**). Within the Operations Area Boundary, there are 1,418 acres of existing disturbance, located on private (458 acres), state (36 acres), and Forest Service (915 acres) land. The mine site currently contains pits, tailings, and development rock storage facilities from previous mining activities. Mining has occurred in three general locations: Hangar Flats, Yellow Pine, and West End, with additional areas of mining-related disturbance occurring throughout the Operations Area Boundary; however, prior to Perpetua acquiring and consolidating the patented mining claims, mine operations had ceased. Intermittent restoration activities have taken place in the past as funding became available to the Forest Service. EPA, Forest Service, IDL, and IDEQ have funded remediation activities at the mine site (**Section 3.7**).

Table 3.15-3 Operations Area Boundary Land Ownership

Entity	Acres
BNF	8.6
PNF	13,432.7[1]
Private	779.5
Total	14,220.8

[1] Approximately 22.5 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest.

Access Roads

There are three existing primary access routes to the Operations Area Boundary from Cascade or McCall: Johnson Creek, Lick Creek, and SFSR routes (**Section 3.16**). The Lick Creek Route and SFSR route would not be utilized by the SGP so are not discussed further here. Within the analysis area, the Johnson Creek Route and Burntlog Route would both utilize Warm Lake Road from SH 55. The road starts in Cascade at an intersection with SH 55 and continues eastward for approximately 35 miles, ending at Johnson Creek Road (CR 10-413) at Landmark. The Johnson Creek Route is the only existing access route located in the SGP analysis area and includes Johnson Creek Road (CR 10-413) and the Stibnite Road. Johnson Creek Road is approximately 25 miles long, and the Stibnite Road is another 14 miles between the village of Yellow Pine and the mine site. Burnt Log Road (FR 447) is an existing 20-mile road in the SGP area; however, it does not currently provide access to the Operations Area Boundary. The proposed Burntlog Route corridor includes the existing Burnt Log Road and undeveloped lands where the route would connect with Meadow Creek Lookout Road (FR 51290) and Thunder Mountain Road.

Utilities

The IPCo operates approximately 64 miles of existing transmission lines, including a 42-mile, 69-kilovolt electric transmission line, and a 21.5-mile, 12.5-kilovolt electric transmission line. IPCo operates existing electrical substations located at Oxbow Dam, Horseflat, Scott Valley, McCall, Lake Fork, Warm Lake, and Thunderbolt Tap.

Existing communication facilities include a microwave relay tower installed by Midas Gold Idaho, Inc. in 2013, located on private land atop Cinnabar Peak, a 9,000-foot peak east of the SGP.

Off-Site Facilities

There are no existing off-site facilities associated with the SGP within the analysis area. Perpetua currently maintains an administrative office in Donnelly, and a core logging and storage facility in Cascade.

Rights-of-Way And Easements

There are approximately 140 acres of existing road ROW and 493 acres of existing transmission line ROW, totaling approximately 633 acres of existing ROW in the SGP area (**Table 3.15-4**).

Current roads in the analysis area include Cabin Creek Road (FR 467), Warm Lake Road (CR 10-579), Johnson Creek Road (CR 10-413), Stibnite Road (CR 50-412), numerous other forest roads, and the existing transmission line access roads. The existing transmission line ROW crosses private lands, as well as lands administered by the BNF, the PNF, Bureau of Reclamation, and the IDL. Components of the SGP would intersect with numerous easements for road access, including a FRTA easement along the Johnson Creek Route. There is an additional easement for approximately one mile of an abandoned railroad that is adjacent to SH 55 between Cascade and Donnelly.

Table 3.15-4 Acres of Existing Transmission Line ROWs in the Analysis Area

Land Management/Ownership	Existing Transmission Line ROW
Private	184
% Private	37%
State	24
% State	5%
NFS	275
% NFS	56%
BOR	10
% BOR	2%
Total Area (Acres)[1,2]	**493**

[1] The analysis area for land use and land management includes the combined footprint of all proposed action alternative components for the SGP area. Alternative components include the proposed SGP, all associated mine support infrastructure, all access and haul roads (proposed and existing), all utility infrastructure (proposed and upgraded), and proposed off-site facilities.
[2] Subtotals may not add to totals due to rounding.

Other Land Uses

Agriculture

In Valley County, agricultural land uses are challenging due to a limited growing season, soil conditions, high water table, and occasional summer frosting. According to the 2017 Census of Agriculture, in Valley County 75 percent of farms were pastureland for livestock, 14 percent were woodland, 8 percent were cropland, and 3 percent other (USDA 2017). Agricultural lands offer potential for subdivision and second-home development. Agricultural lands are valued not only for production, but as open space (Valley County 2018a).

Residential

The closest community to the Operations Area Boundary is the village of Yellow Pine, approximately 14 miles (northwest). Cascade, Donnelly, and Warm Lake are other communities within the analysis area. The existing transmission line passes through the Thunder Mountain Estates subdivision approximately 1 mile east of Cascade. Residential land use types include homesite land, recreation land, rural residential tracts, rural residential subdivisions, other rural land, urban residential lots, common areas, condominiums or townhouses, and various improvements to residential uses and lands (Valley County 2018a).

Fisheries

Activities pertaining to fisheries recovery are considered a major land use in and near the analysis area and are applicable to waterbodies. Recovery plans focus on actions that contribute to land use and land management actions including maintaining, protecting, and restoring tributary habitat; improving passage through barrier removal; reducing sediment delivery to streams by improving roads, riparian communities, and rehabilitating mine sites; restoring connectivity of populations; and conducting research and monitoring to implement and evaluate recovery activities (Forest Service 2023i). **Section 3.12** includes additional information regarding fisheries.

Timber

Timber harvest on NFS lands is guided by Forest Service regulations. On state and private lands, timber resources could be harvested in a manner that is compliant with IDL regulations. Timber resources in the SGP area are found on NFS, private, state, and BOR land (**Section 3.14**). **Section 3.14** includes additional information regarding timber resources.

Tribal Uses

Regional tribes exercise off-reservation rights for traditional land uses such as fishing, hunting, and gathering on NFS lands (Forest Service 2023q). **Section 3.24** includes additional information regarding tribal treaty rights, interests, and concerns.

Recreation and Special Uses

Public lands in the analysis area are widely used for recreation purposes. This includes NFS and state lands, which collectively make up about 80 percent of lands in the SGP area. Recreation use occurs during all seasons in the form of motorized recreation (e.g., all-terrain vehicles, snowmobiles), hunting and fishing, hiking, camping, canoeing/kayaking/rafting, biking, cross-country skiing, and snowshoeing. Nearby recreational facilities include trailheads, campgrounds, lookouts/cabins, picnic areas, and dispersed recreation areas (Forest Service 2023m). **Section 3.19** includes additional information on current recreation uses in the SGP area.

3.16 Access and Transportation

3.16.1 Introduction

This section presents a brief description of local and regional transportation systems existing on land, air, and water in the analysis area, including roads, rail, port, and airstrips. The section focuses mainly on the local and regional road transportation system and provides a discussion of the road system development history, existing roads and areas of motorized access in the analysis area, vehicle accident data, and current (2015-2017 and 2019) traffic volumes.

3.16.2 Access and Transportation Area of Analysis

The analysis area for access and transportation encompasses the overall road system, which is dominated by unpaved roads, one state highway (SH 55), and county roads. Although **Figure 3.16-1** displays the majority of the analysis area, it does not show the portion of SH 55 that continues both north and south, intersecting with I-84 in Boise to the south and US 95 at New Meadows to the north. The extent of the analysis area was confirmed by the results of the Traffic Impact Analysis on SH 55 (HDR 2017l).

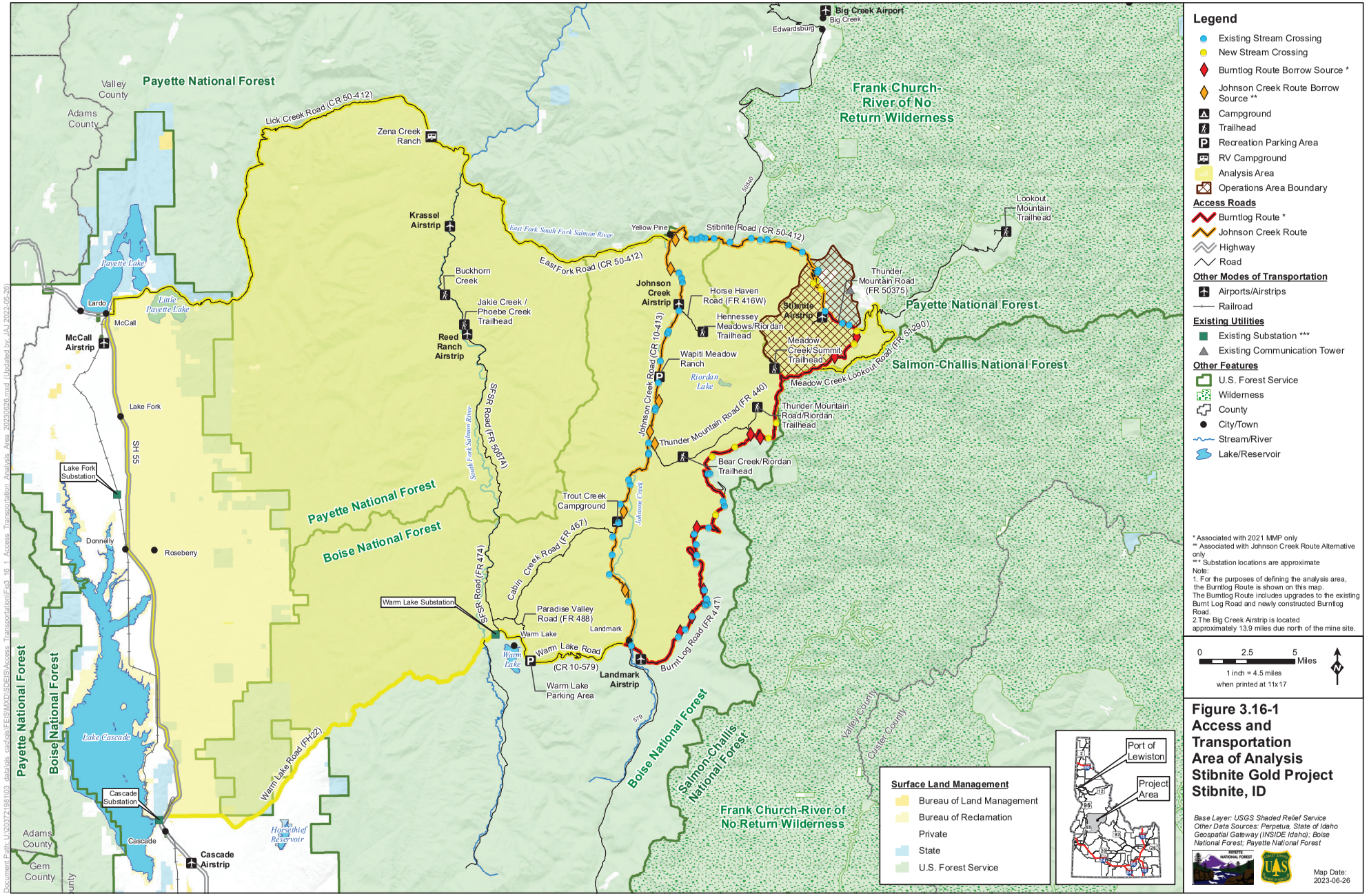


Figure 3.16-1 Access and Transportation Area of Analysis Stibnite Gold Project Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua, State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

Map Date: 2023-06-26

Document Path: U:\20527\198103 data\gis cad\gis\FEIS\MXD\SDEIS\Access Transportation\Fig3 16 1 Access Transportation Analysis Area 20230626.mxd (Updated by: JAJ 2022-05-26)

3.16.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and implementing regulations apply to the Proposed Action and Alternatives. The following is a list of laws, regulations, policies, and plans at the federal, state, or local level pertaining to Access and Transportation. Additional descriptions of these regulations can be found in the SGP Access and Transportation Specialist Report (Forest Service 2023k).

Hazardous Materials Transportation Regulations: U.S. Department of Transportation Pipeline and Hazardous Materials Administration, 49 CFR Parts 171-177 define hazardous materials and establish regulations for the safe and secure transportation of hazardous materials in commerce.

Land and Resources Management Plan: National Forest Land and Resource Management Plans embody the provisions of the NFMA and guide natural resource management activities on NFS land. The Payette Forest Plan (Forest Service 2003a), and the Boise Forest Plan (Forest Service 2010a) provide management prescriptions designed to realize goals for achieving desired condition for access and transportation and include various objectives, guidelines, and standards for this purpose.

National Forest Management Act: The NFMA directs roads be designed to standards appropriate for intended uses and requires the revegetation of roads within 10 years of the termination of temporary and undeveloped roads created under contract, permit, or lease unless it is later determined that the road is needed for use as part of the National Transportation System (16 USC 1608 [b] and [c]).

Forest Roads and Trail Act Easements: Section 2 of the FRTA authorizes the road and trail systems for National Forests, the granting of easements across NFS lands, the construction of maximum economy roads, and the imposing of requirements on road users for maintaining and reconstructing roads (16 USC 532 et seq.). FSM 7703.3 states that, "Wherever possible, transfer jurisdiction over any NFS road and associated Forest transportation facilities (FSM 7705) to the appropriate public road authority when the road meets any of the following criteria: a) More than half the traffic on the road is not related to administration and use of NFS lands; b) The road is necessary for mail, school, or other essential local governmental purposes; c) The road serves yearlong residents within or adjacent to NFS lands" (Forest Service 2016d).

Travel Management Rule: Travel management planning is regulated by 36 CFR 212, 251, 261, and 295 – Travel Management; Designated Routes and Areas for Motor Vehicle Use; Final Rule. The final rule, effective in 2005, requires designation of roads, trails, and areas that are open to motor vehicle use by class of vehicle and applies to both summer and winter travel. The Travel Management Rule is divided into three subparts: A, B, and C (Forest Service 2019d).

Subpart A is the administration of the Forest Transportation System and includes the definitions for Part 212, which governs administration of the Forest Transportation System, designation of roads, trails, and areas for motor vehicle use (including OHVs). The PNF and BNF both completed a travel analysis process in September 2015 to inform future NEPA travel management decisions including identification of the minimum road system, identification of unneeded roads to be decommissioned or converted to other uses, and other changes to NFS roads, which include revisions to motor vehicle use designation (Forest Service 2019d, 2019e, 2019f).

Subpart B is the designation of roads, trails, and areas for motor vehicle use. The motor vehicle use map is developed under 36 CFR 212.51 (Forest Service 2019d). Subpart C designates and regulates use specifically for OSVs. The Forest Service issued orders including maps showing the areas where OSV use is allowed, prohibited, or restricted.

State of Idaho Rules: The Idaho Surface Mining Act (Title 47, Chapter 15) requires the state to regulate mining activities, including but not limited to, mineral exploration, mine operations, reclamation of lands affected by exploration and mine operations. Implementing regulations under IDAPA 20.03.02 include provisions regarding the design, construction, maintenance, and reclamation of mining roads.

Valley County Master Transportation Plan: Valley County adopted its 2008 Master Transportation Plan to address the impacts of growth on the existing transportation system in the western portion of the county along SH 55 (Valley County 2008a). The Master Transportation Plan accounts for future growth and changes in land uses under Valley County's jurisdiction. Valley County proposed recommendations for future improvements to the Valley County transportation network to support this anticipated growth.

Forest Service Manuals: FSM 2700 provides direction for special uses management on NFS lands. Chapter 2730 covers policies, authorities, and direction for granting rights-of-way for roads and trails across NFS lands and interests in lands. FSM 5400 covers landownership and Chapter 5460 provides direction concerning right-of-way acquisition. FSM 7700 provides direction for the planning, construction, reconstruction, operation, and maintenance of the Forest Transportation System.

3.16.4 Affected Environment

3.16.4.1 Existing Road Transportation Network

The Stibnite Mining District has been explored and mined since the early 1900s and included activities such as road construction and exploration. Many of the forest roads in the area were originally built to access mining claims or other remote sites and tend to be very steep, rocky, and winding (Forest Service 2019e).

The transportation network in the analysis area includes SH 55 (between Cascade to the south and McCall to the north), Valley County roads, and NFS roads. Valley County maintains Warm Lake Road, Johnson Creek Road, and McCall-Stibnite Road on NFS lands through easements issued under the FRTA (**Figure 3.16-1**). The McCall-Stibnite Road consists of Lick Creek Road (from SH 55 east to SFSR Road), East Fork Road (from SFSR Road east to the village of Yellow Pine), and Stibnite Road (from the village of Yellow Pine east to the Operations Area Boundary). There are approximately 130 miles of state roads, approximately 278 miles of Valley County roads, and approximately 1,557 miles of NFS roads in the analysis area.

Table 3.16-1 lists the existing roads in the analysis area by name, NFS road or CR number, a brief description of the route. The road width of SH 55 generally spans from 20 to 24 feet and the average posted speed limit is 55 miles per hour. Valley County road surface widths range from 14 to 26 feet and general speed limits range from 20 to 50 miles per hour (Valley County 2008b). NFS road surfaces in the SGP area range from 10 to 16 feet wide and most NFS roads do not have posted speed limits, but generally have a design speed limit of 5 to 15 miles per hour. Most roads in the PNF and BNF are single-

lane, native surfaced roads with high rock fragment content from the rocky terrain and include pullouts for passing vehicles. General maintenance during snow-free months consists of grading and re-compacting the road surface, intermittent dust control, and periodic cleaning of drainage culverts and ditches.

The Forest Service Road Maintenance Levels (NFS MLs) are defined by the FSH 7709.59 – Road Systems Operations and Maintenance as the level of service provided by, and maintenance required for, a specific road which are consistent with road management objectives and maintenance criteria (Forest Service 2009c). Maintenance levels are summarized below:

- **Maintenance Level 5** – "Assigned to roads that provide a high degree of user comfort and convenience. These roads are normally double lane, paved facilities." Some may have an aggregate surface and dust abatement may be used. They are usually an arterial or collector road. Typically, connect to state roads and CRs and include some developed recreation roads.
- **Maintenance Level 4** – "Assigned to roads that provide a moderate degree of user comfort and convenience at moderate traffic speeds. Most roads are double lane and have an aggregate surface." However, some roads may be single lane. Some roads may be paved and/or dust abated. May connect to state and CRs and include some developed recreation roads.
- **Maintenance Level 3** – "Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities." Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. May include some dispersed recreation roads.
- **Maintenance Level 2** – "Assigned to roads open for use by high clearance vehicles. Warning signs and traffic control devises are not provided with the exception that some signing, such as W-18-1 'No Traffic Signs,' may be posted at intersections. Motorists should have no expectations of being alerted to potential hazards while driving these roads. Long haul may occur at this level." These are local roads that connect to collectors and other local roads and may not be passable during periods of inclement weather.
- **Maintenance Level 1** – Assigned to intermittent service roads during the time they are closed to vehicular traffic, typically more than 1 year. Basic custodial maintenance is performed to keep damage to adjacent resources to an acceptable level and to perpetuate the road to facilitate future management activities. Roads receiving maintenance level 1 may be of any type, class, or construction standard, and may be managed at any other maintenance level while they are open for traffic. While being maintained at level 1, they are closed to vehicular traffic, but may be open and suitable for non-motorized uses.

Table 3.16-1 Existing Roads in the Analysis Area

Name	FR/CR Number	Juris-diction	Length	Access[1,2,3]	Notes
SH 55	-	ITD	27.6 miles, From Cascade north to McCall	Open year-round to highway legal vehicles	Asphalt road; Plowed in winter. Functional classification of Other Principal Arterials.
Warm Lake Road	CR 10-579	Valley County	34.3 miles, From SH 55 east to just east of CR 10-413 at the start of the proposed Burntlog Route/Burnt Log Road	Open year-round to all vehicles	Asphalt road; Plowed to Warm Lake Parking Area; Groomed OSV from Warm Lake Parking Area to Landmark (8 miles). Functional classification of Major Collector.
Johnson Creek Road	CR 10-413	Valley County	25.1 miles, From CR 10-579 north to the Stibnite Road portion of CR 50-412 at the village of Yellow Pine	Open year-round to all vehicles (wheeled vehicles seasonally restricted due to grooming for OSVs)	Aggregate/native surfaced road; Groomed OSV from CR 10-579 north to Wapiti Meadow Ranch by Valley County; Plowed from Wapiti Meadow Ranch north to Yellow Pine by Valley County. Functional classification of Major Collector.
Lick Creek Road	CR 50-412	Valley County	35.2 miles, Portion of CR 50-412 from SH 55 east (in McCall) to FR 50674	Open year-round to all vehicles	Asphalt/aggregate/native surfaced road; Plowed for the paved portion and from Zena Creek Ranch to the end and ungroomed in between. Functional classification of Minor Collector.
East Fork Road	CR 50-412	Valley County	14.7 miles, Portion of CR 50-412 from FR 50674 east to the village of Yellow Pine	Open year-round to all vehicles	Aggregate/native surfaced road; Plowed in winter by Valley County. Functional classification of Minor Collector.
Stibnite Road	CR 50-412	Valley County	14.7 miles, Portion of CR 50-412 from the village of Yellow Pine east to FR 50375 (within the SGP) and continuing just south of the junction with FR 50375	Open year-round to all vehicles	Aggregate/native surfaced road; Plowed in winter by Perpetua through agreement with Valley County. Functional classification of Minor Collector.
Warren-Profile Gap Road*	CR 50-340	Valley County	27 miles, From CR 50-412 north to Edwardsburg- Big Creek	Open year-round to all vehicles	Aggregate/native surfaced road
SFSR Road	FR 50674	PNF	23.7 miles, From FR 474 north to East Fork Road CR 50-412	Open year-round to highway legal vehicles (a 2-mile stretch between Buckhorn Creek Trailhead and Jackie Creek/Phoebe Creek Trailhead is open to all vehicles.)	Also locally known as South Fork Road; Asphalt road; Plowed in winter by Valley County (under Schedule A agreement). NFS ML: 4 Functional classification of Minor Collector.

Name	FR/CR Number	Juris-diction	Length	Access[1,2,3]	Notes
SFSR Road	FR 474	BNF	7.2 miles, From CR 10-579 north to FR 50674	Open year-round to highway legal vehicles	Also locally known as South Fork Road; Asphalt road; Plowed in winter by Valley County (under Schedule A agreement). NFS ML: 4
Burnt Log Road	FR 447	BNF	21.7 miles, From approximately 230 feet east of CR 10-413 to end	Open year-round to all vehicles	Native surfaced road; Last 0.25 to 0.5 mile of road is closed, and motorized traffic is prohibited; Groomed OSV route from Landmark by Valley County (approximately 9.8 miles total: 6 miles groomed and 3.8 miles of infrequently groomed). NFS ML: 3 (4 miles) and 2 (17 miles)
Thunder Mountain Road	FR 50375	PNF	5.1 miles, From the east terminus of CR 50-412, then east to Lookout Mountain Trailhead	Open year-round to all vehicles	Native surfaced road. NFS ML: 2
Thunder Mountain Road	FR 440	BNF	8.5 miles, From CR 10-413 east to FR 440/Riordan Trailhead	Open year-round to all vehicles	Also locally known as Old Thunder Mountain Road; Native surfaced road. NFS ML: 2
Meadow Creek Lookout Road	FR 51290	PNF	11.5 miles, From Meadow Creek/Summit Trailhead north to FR 50375	Open year-round to all vehicles	Native surfaced road. NFS ML: 2
Horse Heaven Road	FR 416W	BNF	2.2 miles, From Johnson Creek Road (CR 10-413) east to Hennessey Meadows/Riordan Trailhead	Open year-round to all vehicles	Also locally known as Riordan or Powerline Road; Native surfaced road. NFS ML: 2
Cabin Creek Road	FR 467	BNF	10.6 miles, From FR 474 east to Spur FR 467P and Trout Creek Campground at CR 10-413	Open to all vehicles from June 1 to September 15	Native surfaced road. NFS ML: 2
Paradise Valley Road	FR 488	BNF	1.7 mile, From CR 10-579 north to FR 467	Open year-round to all vehicles	Native surfaced road. NFS ML: 2

Source: Forest Service 2005b, 2018c, 2019d, 2019e, 2019f, -2019g; Valley County 2014, 2019c; IDT 2024

*Warren-Profile Gap Road is outside of the analysis area but could be used to access the SGP when connecting from the north to Stibnite Road.

[1]Roads Open to Highway Legal Vehicles = These roads are open only to motor vehicles licensed under state law for general operation on all public roads within the state.

[2]Roads Open to All Vehicles = These roads are open to all motor vehicles, including smaller OHVs that may not be licensed for highway use (but not to oversize or overweight vehicles under state traffic law).

[3]Unless otherwise noted, FR roads are closed by snow in the winter and re-open once snow melts in the spring.

The maintenance of certain NFS roads is coordinated between the Forest Service and Valley County through Schedule A agreements. Typically, NFS road maintenance activities (including dust control, removal of debris from roadway and rights-of-way, road repair, and snow removal) are coordinated with the Valley County Roads and Bridge Department. Most Valley County backcountry roads are closed through the winter and melt off in the spring (Valley County 2017). Similarly, NFS roads are closed by snow in the winter and re-open once the snow melts off in the spring. Therefore, roads do not open for through-traffic until at least mid-June and often close to public use as early as October 15.

3.16.4.2 Existing Routes

There are four existing roads within the analysis area that in combination provide access to the Operations Area Boundary and vicinity from Cascade or McCall: Warm Lake Road, Johnson Creek Road, McCall-Stibnite Road, and SFSR Road as shown on **Figure 3.16-1**. All of the routes require the use of Idaho SH 55.

Idaho SH 55

SH 55 extends from its intersection with I-84 in Boise north for 119 miles to the intersection with US 95 in New Meadows, Idaho. Within the analysis area, the SH 55 corridor currently experiences congestion and delays during peak weekday hours between Cascade and McCall. The delays continue south to Banks during the weekend peak hours. This congestion is projected to continue to increase if no improvements to SH 55 are made.

SH 55 is maintained by the ITD District 3 as an all-weather rural highway. Traffic conditions are monitored by ITD along the length of the corridor by automatic traffic recorders. Supplemental data has been collected to determine if the level of service for the key intersections (connection to Warm Lake Road via Cascade and connection to McCall-Stibnite Road via McCall) within the SH 55 corridor are within acceptable levels. Additional analysis, specifically to measure traffic counts, determined that the main intersections along the corridor were operating efficiently, with the exception of delays to the westbound left-turn for signalized traffic onto Deinhard Lane in McCall (HDR 2017l).

Warm Lake Road

Warm Lake Road (CR 10-579) is a two-lane (one lane each direction), asphalt-paved roadway with lane markings open year-round to all vehicles from SH 55 to Warm Lake. The road starts in Cascade at an intersection with SH 55, which is a major north-south transportation corridor. Warm Lake Road intersects the SFSR Road about 24 miles to the east. The Warm Lake Road continues eastward for another 11 miles, for a total of approximately 35 miles, ending at the intersection with Johnson Creek Road (CR 10-413) at Landmark. Warm Lake Road includes steep grades and crosses two high mountain passes, Big Creek Summit between Cascade and Warm Lake and Warm Lake Summit between Warm Lake and Landmark. Warm Lake Road is under the jurisdiction of Valley County. Currently, Valley County does not maintain Warm Lake Road in winter further than one mile beyond Warm Lake Lodge (Forest Service 2023r). With adequate snowpack, an 8-mile segment of the Warm Lake Road route east of Warm Lake Lodge is used as an OSV route, allowing access into Landmark and points beyond.

Johnson Creek Road

During non-winter conditions (roads clear of snow), the Operations Area Boundary can be accessed from the City of Cascade by traveling northeast on Warm Lake Road for about 34 miles to Landmark, then north on Johnson Creek Road for approximately 25 miles to the village of Yellow Pine, and approximately 14 miles east on the Stibnite Road portion of McCall-Stibnite Road (Stibnite Road). Johnson Creek Road and the Stibnite Road portion of McCall-Stibnite Road is currently used to access the Operations Area Boundary during the summer.

The Johnson Creek Road is a county maintained, native surface road that is open to vehicles with seasonal restrictions due to snow. During the winter, Valley County plows approximately 10 miles of Johnson Creek Road from Yellow Pine to Wapiti Meadow Ranch and Perpetua (under agreement with Valley County) plows along Stibnite Road. Valley County grooms the remaining 17 miles of Johnson Creek Road from Wapiti Meadow Ranch to Warm Lake Road at Landmark for OSV use. Valley County does not plow Warm Lake Road from Warm Lake to Landmark. This section is a designated groomed OSV route.

McCall-Stibnite Road

The Stibnite Road from the intersection with Johnson Creek Road then east to the mine is also a county-maintained native surface road, open to all vehicles with seasonal restrictions due to snow. This road is plowed in the winter by Perpetua through an agreement with Valley County. Stibnite Road connects to Thunder Mountain Road on the southeastern portion of the Stibnite mine site and currently provides public access through the mine area.

The analysis area can be accessed from McCall during non-winter conditions by traveling east on the Lick Creek Road portion of McCall-Stibnite Road for approximately 37 miles to the East Fork Road portion of McCall-Stibnite Road, then approximately 16 miles to the village of Yellow Pine, and approximately 14 miles east on Stibnite Road. Lick Creek Road is not maintained during the winter; however, East Fork Road and Stibnite Road are plowed from the intersection with SFSR Road to Yellow Pine by Valley County and from Yellow Pine to the Operations Area Boundary by Perpetua to access their private land inholdings in the area. Although the Lick Creek and East Fork roads are not proposed to be used by the SGP, they provide access for other users of the analysis area.

South Fork Salmon River Road

The SFSR Road can be accessed year-round from Cascade by traveling approximately 24 miles northeast on Warm Lake Road to the intersection with SFSR Road. It then travels north for approximately 30 miles to intersect with the East Fork Road portion of the McCall-Stibnite Road. Some segments along SFSR Road have sharp curves which can be challenging for heavy vehicle travel. Although this route currently provides the only access to the Operations Area Boundary during winter months, it is not proposed to be used by the SGP.

3.16.4.3 Existing Stream Crossings

Existing stream crossings along the existing Johnson Creek, Stibnite, and Burnt Log roads are shown on **Figure 3.13-7**. There are 213 existing stream crossings along existing main access roads in the analysis

area. These crossings include intermittent and perennial streams and irrigation canals and ditches (USGS 2021a). Additional details on existing stream crossings are found in the SGP Access and Transportation Specialist Report (Forest Service 2023k).

3.16.4.4 Existing Seasonal Access for OHVs and OSVs

OHVs can access the roads and trails throughout the analysis area during both summer and winter seasons. Currently, OHVs can access the Operations Area Boundary primarily from Stibnite Road to Thunder Mountain Road in order to reach Monumental Summit and the Lookout Mountain Trailhead in the summer. More detailed discussion on existing recreational access within the recreation analysis area is provided in **Section 3.19**.

During the winter, numerous roads in the analysis area are plowed for vehicle use or groomed for OSV use (Valley County 2019c). Specifically, Valley County plows the following roads/road sections for highway legal vehicle use during the winter: East Fork Road from SFSR Road to Yellow Pine; Johnson Creek Road from Yellow Pine to Wapiti Meadow Ranch, the beginning and end portions of Lick Creek Road, and Warm Lake Road from SH 55 to Warm Lake under existing FRTA easements. Valley County also plows SFSR Road for use during the winter under a Schedule A cooperative maintenance agreement. Perpetua plows Stibnite Road from Yellow Pine to the SGP under an annual road maintenance agreement with Valley County to maintain access to their private land inholdings in the area.

Valley County currently grooms for OSV use the portion of Johnson Creek Road from Wapiti Meadow Ranch to Warm Lake Road (approximately 17 miles) and the length of Warm Lake Road from Warm Lake to Landmark (approximately 11 miles). Valley County also grooms Burnt Log Road for OSV use (approximately 9.8 miles total: 6 miles groomed and 3.8 miles of infrequently groomed). Cabin Creek Road is currently used during the summer and is not a groomed OSV route.

3.16.4.5 Existing Traffic Conditions

Existing vehicle traffic was determined by traffic count data collected on local roadways and at SH 55 intersections in the analysis area (HDR 2017l, 2017m; ITD 2017). Traffic count data was collected to record two-way road usage at nine sites from July through October from 2014 through 2019.

Table 3.16-2 summarizes the baseline traffic volumes (i.e., AADT) for key roadway segments in the analysis area.

The traffic volumes along the key roadway segments decrease with distance from SH 55. SH 55 is a public highway classified by Valley County as a principal arterial per the ITD functional classification that provides for relatively high travel speeds and minimum interference to through movement (American Association of State Highway and Transportation Officials [AASHTO] 2018; Valley County 2008a). Warm Lake Road has the most daily traffic of the county and NFS roads in the analysis area. Many recreational facilities are located off this road including numerous facilities near Warm Lake. Residences are spread out along Warm Lake Road within 4 miles of SH 55 and along McCall-Stibnite Road in Yellow Pine and north to Big Creek using Warren-Profile Gap Road. Warm Lake Road and Johnson Creek Road are county major collector roads per ITD functional classification, while the McCall Stibnite Road has a functional classification of minor collector (ITD 2024).

Table 3.16-2 Existing Traffic Volumes for Key Roadway Segments

Name	FR/CR Name	AADT[1,2]
SH 55	-	4,900
Warm Lake Road	CR 10-579	1,670
Johnson Creek Road	CR 10-413	70
Stibnite Road[3] (Yellow Pine to Stibnite)	CR 50-412	30
Burnt Log Road	FR 447	70
East Fork Road[4] (SFSR Road to Yellow Pine)	CR 50-412	84
Thunder Mountain Road[5]	FR 440	11
Horse Heaven Road[5]	FR 416W	6

Source: AECOM 2019b; HDR2017l, 2017m; ITD 2017, 2019; Grange 2023

[1]Data was collected in 2015 or 2016 except for Warm Lake Road data collected in 2017. 2019 data from the ITD was available for SH 55, Warm Lake Road, Johnson Creek Road, Stibnite Road, and Burnt Log Road. AADT is calculated by Total Recorded Count/Number of Days Recorded. All figures have been rounded up to whole numbers.

[2]Average daily traffic count data provided by Forest Service for calendar year 2014 at Lick Creek Summit (35 AADT), East Fork (Eiguren Ranch) (37.8 AADT), South Fork (confluence) (34.7 AADT), Profile Summit (14.1 AADT), and Stibnite (18.1 AADT) support the data provided in Table 3.16-2. However, for consistency purposes, the 2015, 2016, and 2019 data collected would be used to account for traffic counts along the segments.

[3]A portion of the traffic turns off onto Warren-Profile Gap Road towards Big Creek/Edwardsburg (approximately 5 to 18 vehicles between 2014 through 2016). However, for purposes of this analysis, all traffic on Stibnite Road between Yellow Pine and the SGP is considered.

[4]This road considers traffic counts available from 2015-2017 data as more recent traffic counts for the specific road segments from SFSR Road to Yellow Pine were not available from the ITD.

[5]The traffic counts are assumed to include OHVs only. These roads include 2015-2017 traffic counts as more recent data was not available from the ITD.

Traffic volume in the analysis area is mainly attributed to recreational activities and residential traffic. Other activities could include fuels management, road and utility maintenance activities, and timber harvest. In addition, current traffic levels in the analysis area also can be attributed to the activities that have been ongoing since 2009 for exploration purposes, monitoring, background studies, and private property infrastructure maintenance. Traffic volume and traffic behavior vary depending on the day of the week and the season. Valley County has many summer recreational areas that attract visitors from May through October with peak levels in June, July, and August. Although the AADT is less during the winter months, winter driving conditions influence the amount of traffic (Valley County 2008a).

3.16.4.6 Vehicle Accidents

Vehicle accident data for full-size vehicles, motorcycles, and OHVs from 2000 through 2021 was obtained from Valley County Sheriff's Department records for the six roads associated with the three existing primary access routes to the Operations Area Boundary. Warm Lake Road experienced an average of seven accidents per year from 2000 through 2021, followed by SFSR Road with an average of two accidents per year, Lick Creek Road with two accidents per year, Johnson Creek Road with one accident per year, and Stibnite Road and East Fork Road with no accidents on average per year (Ulberg 2017, VCSD 2022).

According to the Valley County Sheriff's traffic incident records from 2000 through 2021, the causes of most accidents on the existing roadways fall under the general categories of driver error, vehicle mechanical issues, and environmental factors (Ulberg 2017, VCSD 2022).

Existing SH 55 regional crash data was obtained for five full years (2011-2015) for the intersections included in the impact study from the ITD Office of Highway Safety. Between 2011 and 2015, a total of 7 crashes occurred (2 at SH 55/Banks-Lowman Road, 3 at SH 55/Deinhard Lane, and 2 at SH 55 Boydstun Street). Crashes that occurred both north and south of the intersection with Warm Lake Road were tabulated, and the crash rate was calculated using the AASHTO Highway Safety Manual predictive method (HDR 2017l). During the five years analyzed for crash predictions, there were no fatalities, and the majority of the crashes involved property damage only. No intersection related crashes have occurred from 2017 to 2020 (Rich 2023).

3.16.4.7 Golden Meadows Exploration

The previously authorized Golden Meadows mineral exploration activities began in 2009 and currently use the existing road transportation network. The exploration area is accessed via Warm Lake and Johnson Creek roads during the summer and the Warm Lake and SFSR roads during the winter.

3.17 Heritage Resources

3.17.1 Introduction

This section describes the existing (baseline) conditions relevant to Heritage Resources that have the potential to be affected by the SGP.

3.17.1.1 Definitions

For purposes of this report, the term heritage resource will be utilized in place of cultural resource to describe archaeological sites, historic buildings and structures, trails, roads, infrastructure, and other places of traditional, cultural, or religious importance that represent the physical aspects of the activities of past or present cultures. Heritage resources can be human-made or natural features and are, for the most part, unique, finite, and nonrenewable.

Although the terminology has been amended for purposes of this report, the definition of heritage resource is that of a cultural resource which is defined in the FSM 2300 under Section 2360.5, and as follows:

> *an object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources include prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties (Forest Service 2008a).*

Categories of heritage resources described in this report are synonymous with those resources identified in the above-detailed definition. However, the analysis of potential impacts to heritage resources as detailed in **Section 4.17** is limited to historic properties, as defined by Section 106 of the NHPA and its implementing regulations at 36 CFR 800. Historic properties are defined as:

> *...any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the NRHP criteria (36 CFR 800.16).*

Historic properties include not only archaeological and historic architectural resources, but also traditional cultural properties (TCPs) and cultural landscapes (CLs). As defined by the NPS, TCPs are a distinct category of historic property eligible for listing in the NRHP due to their association with cultural practices or beliefs rooted in a living community's history and importance in maintaining the cultural identity of that community (Parker and King 1998). A TCP must be a tangible property, that is, a district (i.e., an area that possesses a concentration, linkage, or continuity of culturally significant elements), site, building, structure, or object as defined in 36 CFR 64.4 (FSM 2360.5). Its significance must be documented and evaluated in accordance with the four NRHP criteria (Parker and King 1998).

A TCP may be a building, site, district, object, or landscape. The significance must go beyond the past 50 years yet retain ongoing significance. Although the same seven aspects of integrity are relevant, National Register Bulletin 38 (Parker and King 1998) notes that the concept of integrity is applied somewhat differently for TCPs than it is for archaeological sites:

> *In the case of a traditional cultural property, there are two fundamental questions to ask about integrity: 1) does the property have an integral relationship to traditional cultural practices or beliefs; and 2) is the condition of the property such that the relevant relationships survive (Parker and King 1998).*

CLs are defined by the NPS as:

> *A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (NPS 2020).*

Regulations under the NHPA and NEPA provide that impacts to TCPs and CLs, if applicable, be considered in the agency's Section 106 consultation for any proposed federal agency action. Because Native American tribes can be affected by the policies and actions of the Forest Service in managing the lands and resources under its jurisdiction, the Forest Service consults with them on matters affecting their interests. Because of this government-to-government relationship, efforts were and continue to be made to involve local tribal governments and to solicit their input regarding potential effects to heritage resources. The structure of formal government-to-government consultation is between tribal governing bodies (Executive Committee, Tribal Councils, Tribal Chairperson, traditional Chiefs, or those identified formally by a tribe's governing body as 'representative' of that tribe's interests) and Forest Service Line Officers. Staff-to-staff meetings usually include Forest Service technical specialists and tribal liaison and technical specialists. Tribal consultation for the SGP was initiated with each tribe in the spring of 2017 and is ongoing.

3.17.1.2 NRHP Criteria and Integrity

The criteria for determining whether heritage resources are eligible for listing in the NRHP and therefore considered historic properties are provided in 36 CFR 60.4. The NRHP criteria are as follows:

> *The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and*
>
> *a) That are associated with events that have made a significant contribution to the broad patterns of our history; or*
>
> *b) That are associated with the lives of persons significant in our past; or*
>
> *c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
>
> *d) That have yielded, or are likely to yield, information important in prehistory or history.*

While nearly all sites have the potential to yield information useful in addressing a limited number of research questions, this limited potential alone is not considered enough to qualify a site for inclusion in the NRHP under Criterion D. Federal guidelines encourage the use of a set of research questions that are generally recognized as important research goals as a means of evaluating significance. If a site contains information that is demonstrably useful in answering or refuting such questions, it can be considered a significant site under Criterion D.

In order to be a historic property, resources must meet one or more of the NRHP criteria and must retain the aspects of integrity of location, design, setting, materials, workmanship, feeling, and association. The NPS NRHP guidance defines integrity as:

> *...the ability of a property to convey its significance. To be listed on the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it must also have integrity. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance.*
>
> *Historic properties either retain integrity (that is, convey its significance) or they do not. Within the concept of integrity, the NRHP criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. The seven aspects are: location, design, setting, materials, workmanship, feeling, and association (NPS 1995).*

A property does not have to exhibit all seven aspects of integrity but must retain those aspects that are essential to conveying its significance. For example, integrity of association with an event or person is critical for sites that are significant under Criteria A or B, and integrity of design, material, and workmanship would be important to a building significant under Criterion C. Integrity of location,

materials, and workmanship would be important for a precontact artifact scatter significant under Criterion D for its research value in understanding precontact technology and site function.

3.17.2 Heritage Resources Area of Analysis

The analysis area for heritage resources includes the area where effects may be caused by the proposed activities (FSH.1909.15.10, 15.2a). The analysis area is coterminous with the Section 106-defined area of potential effect (APE) as detailed below.

Per 36 CFR 800.16(d), an APE is defined as...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking…" The APE defines that area within which the identification of historic properties will occur.

The APE encompasses the geographic area within which the SGP may cause alterations in the character or use of historic properties, if any such properties exist. For the SGP, the APE was defined to encompass potential physical effects and the potential visual, auditory, and vibratory effects (**Figure 3.17-1**; **Table 3.17-1**). The physical APE encompasses the area where physical disturbance may occur. It includes the mine site, access roads, utilities, and offsite facilities along with a 100-meter (m) (330 foot) buffer zones around most of these areas to account for variations in alignments, access, and other incidental ground disturbance. Heritage resources also have the potential to be impacted by visual changes, noise, and vibration. Changes to the viewshed have the potential to impact the historical integrity of setting, design, feeling, and association. Noise has the potential to impact the historical integrity of setting, design, and feeling. Vibration has the potential to impact the historical integrity of location, setting, design, workmanship, and feeling. Standing architectural resources and physical features of TCPs or CLs can be impacted by vibration through compromised stability, collapse, and dislocation. The visual, auditory, and vibratory (VAV) APE is generally defined as the same as the physical impacts APE surrounding the mine site but extending out to the next higher ridgeline in some areas, a 0.8-km (0.5 mile) buffer on either side of the existing access roads and existing transmission line, a 1.6-km (1 mile) buffer on either side of the Burntlog Route and segment of new transmission line, and a 0.8-km (0.5 mile) buffer surrounding off-site facilities; these areas encompass the extent of potential SGP-related visual, auditory, and vibratory impacts to historic properties. Noise and vibration attenuate as a function of distance from the source, ground absorption, atmospheric conditions, and the presence of physical barriers. Visual impacts from visible physical features on the landscape also decrease with distance. Given the location of the SGP in a mountainous area, natural topography would conceal the mine and associated facilities from certain lines of sight.

Table 3.17-1 Summary of the APEs

Project Component	Extent of Physical APE	Extent of Visual, Auditory, Vibratory APE
Mine Site	Generally, coincides with the extent of the Operations Boundary but extends to the east to encompass the Thunder Mountain Road Corridor and areas where physical effects may reasonably occur.	Generally coterminous the Physical Effects APE on the west and south sides of the Operations Boundary. Extensions to account for potential effects that could be reasonably anticipated are bound by the first ridge above the mine footprint, generally following the highest elevation contour of approximately 7,500 feet.
Access Roads to the Mine Site	100-m (330 foot) buffer on each side of the center line	0.8-km (0.5 mile) buffer on each side of the center line
Burntlog Route	100-m (330 foot) buffer on each side of the center line	1.6-km (1.0 mile) buffer on each side of the center line
Transmission Line	100-m (330 foot) buffer on each side of the center line	0.8-km (0.5 mile) buffer on each side of the center line
Offsite Facilities	100-m (330 foot) buffer on above-ground facilities including maintenance facilities, telecommunications towers, logistics facility	0.8-km (0.5 mile) buffer on each side of the center line

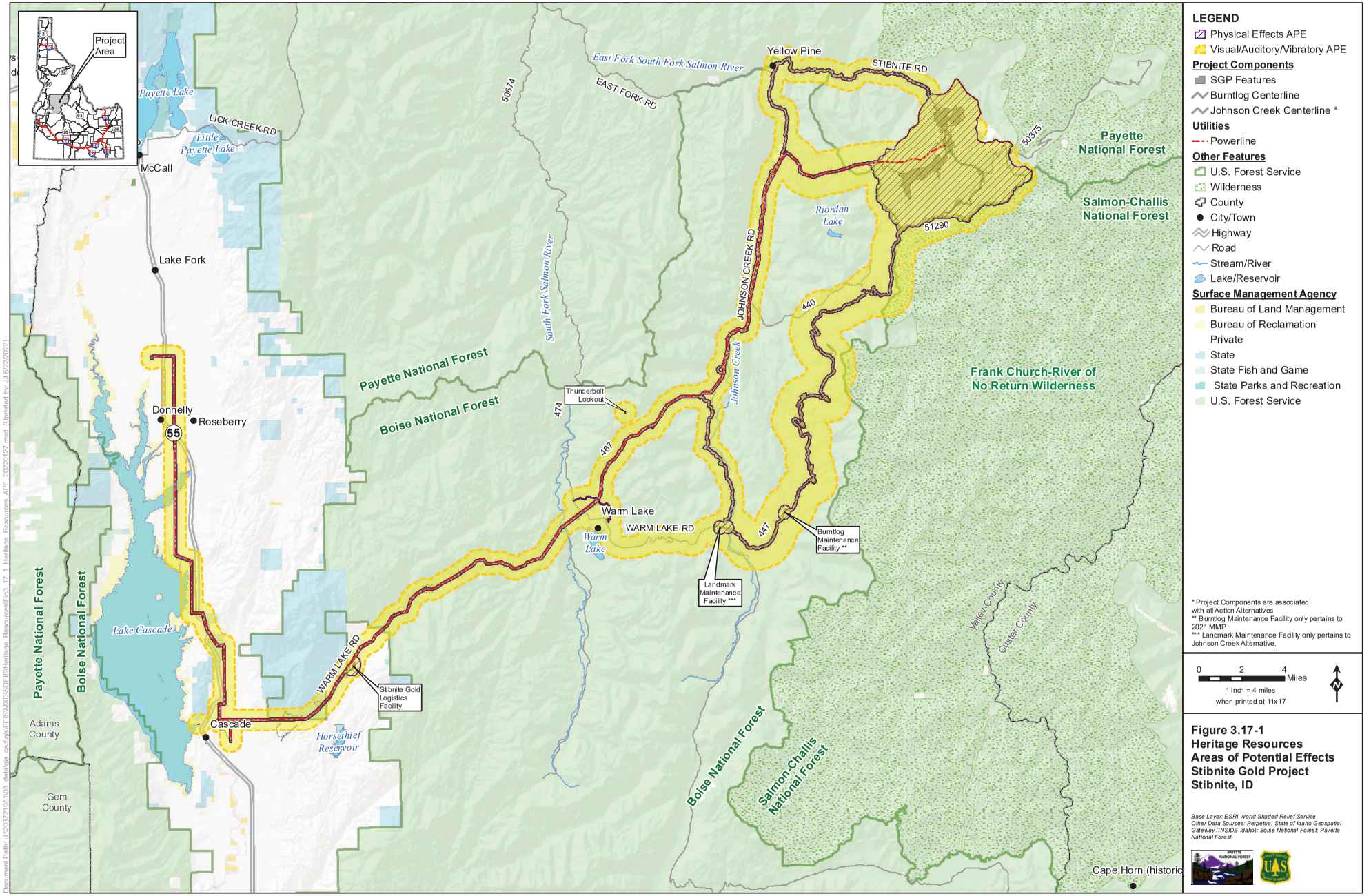
3.17.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and regulations apply to the Proposed Action and Action Alternatives. The following is a list of additional laws, regulations, policies, and plans at the federal, state, or local level pertaining to heritage resources. Additional descriptions of these regulations can be found in the SGP Heritage Resources Specialist Report (Forest Service 2023l).

National Forest Land and Resource Management Plans: Heritage resources are managed consistently with established and approved Forest Service Heritage Program Plans; FSM 2300, Chapter 2360; and FSH guidance (FSH 2309.12).

Implementation of Heritage Program planning is completed to identify priority heritage assets, recommend allocation of heritage resources to management categories that reflect their primary value (i.e., cultural/traditional, scientific, interpretive, or continued use), develop historic preservation management plans, and guide implementation of compliance, protection, and stewardship activities.

The Payette Forest Plan (Forest Service 2003a), and the Boise Forest Plan (Forest Service 2010a) regulate heritage resources to achieve the desired outcomes and conditions for the Heritage Program.


Project Area
Payette Lake
Little Payette Lake
LICK CREEK RD
McCall
Lake Fork
Donnelly
Roseberry
55
Payette National Forest
Boise National Forest
Lake Cascade
Cascade
Adams County
Gem County
WARM LAKE RD
Stibnite Gold Logistics Facility
Horsethief Reservoir
East Fork South Fork Salmon River
EAST FORK RD
50674
South Fork Salmon River
Thunderbolt Lookout
474
467
Warm Lake
WARM LAKE RD
Yellow Pine
STIBNITE RD
JOHNSON CREEK RD
Johnson Creek
Riordan Lake
440
447
51290
50375
Payette National Forest
Salmon-Challis National Forest
Frank Church-River of No Return Wilderness
Buntlog Maintenance Facility **
Landmark Maintenance Facility ***
Valley County
Custer County
Boise National Forest
Salmon-Challis National Forest
Cape Horn (historic
LEGEND
Physical Effects APE
Visual/Auditory/Vibratory APE
Project Components
SGP Features
Burntlog Centerline
Johnson Creek Centerline *
Utilities
Powerline
Other Features
U.S. Forest Service
Wilderness
County
City/Town
Highway
Road
Stream/River
Lake/Reservoir
Surface Management Agency
Bureau of Land Management
Bureau of Reclamation
Private
State
State Fish and Game
State Parks and Recreation
U.S. Forest Service
* Project Components are associated with all Action Alternatives
** Buntlog Maintenance Facility only pertains to 2021 MMP
*** Landmark Maintenance Facility only pertains to Johnson Creek Alternative.
0 2 4 Miles
1 inch = 4 miles when printed at 11x17
N
Figure 3.17-1
Heritage Resources
Areas of Potential Effects
Stibnite Gold Project
Stibnite, ID
Base Layer: ESRI World Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest
Document Path: U:\20527\198\103 data\gis cad\gis\FEIS\MXD\SDEIS\Heritage Resources\Fig3 17 1 Heritage Resources APE 20220127.mxd (Updated by: JJ 6/22/2022)

In addition to specific standards and guidelines, the Payette Forest Plan and Boise Forest Plan describe the desired conditions for Heritage Program resources in the following way:

> *People visiting the National Forest should be able to explore, enjoy, and learn about cultural heritage. As visitors travel through landscapes and experience diverse environments and cultures, they make a personal connection with the land and the people and have an opportunity to reflect on the relevance of the past and the land to their daily lives. Sites determined to be significant, under the NHPA, are inventoried, protected, and if warranted, nominated to the NRHP (Forest Service 2003a, 2010a).*

Antiquities Act of 1906: The Antiquities Act of 1906 protects all historic and prehistoric sites on federal lands and prohibits excavation or destruction of such antiquities unless a permit (Antiquities Permit) is obtained from the Secretary of the department that has jurisdiction over those lands. In addition, it authorizes the President to declare areas of federal lands as National Monuments and to reserve or accept private lands for that purpose. (54 U.S.C. §§320301-320303).

National Historic Preservation Act: The NHPA of 1966, as amended through December 16, 2016 (Public Law [P.L.] 89-665, as amended by P.L. 96-515; 54 USC 300101 *et seq*.) is the principal federal law protecting historic properties.

Section 106 of the NHPA (54 USC 306108) directs all federal agencies to consider the effect of their undertakings (i.e., actions, financial support, and authorizations) on any historic properties. The Advisory Council on Historic Preservation (ACHP) regulations at 36 CFR 800 implement Section 106. Procedures are outlined for identifying resources; evaluating their significance; assessing effects; implementing measures to mitigate adverse effects; and consulting with the ACHP, State Historic Preservation Offices (SHPOs), Tribal Historic Preservation Offices, and other interested parties. The NRHP is used as a planning tool under these regulations to help federal agencies evaluate the significance of cultural resources. Additionally, the NHPA requires federal agencies to consult with Native American tribes to determine whether there are properties of traditional religious and cultural importance to Indian tribes that may be eligible to the NRHP (54 USC 302706).

National Environmental Policy Act: NEPA, as amended (P.L. 91-190, January 1, 1970, as amended by P.L. 94-52, P.L. 94-83, and P.L. 97-258; 42 USC 4321-4347) implemented by Council on Environmental Quality regulations at 40 CFR 1500-1508 requires agencies to consider the effects of proposed actions before making decisions that affect historic properties and the human environment. Under the NEPA, agencies must consider potential "cultural" effects as well as effects on historic properties (40 CFR 1508.8).

For the SGP, the Forest Service has determined that a Programmatic Agreement (PA) is required to ensure compliance with 36 CFR 800. A PA addresses historic properties that may be affected by a project to minimize or resolve any potential adverse effects. A PA outlines measures for compliance with Section 106 of the NHPA, including but not limited to, protocols for the identification and evaluation of historic properties, permitting requirements, treatment of historic properties, monitoring requirements, inadvertent discovery protocols, curation, and treatment of human remains. A PA is a legal document with signatories and concurring parties. For the SGP, agency signatories, invited signatories, and concurring or consulting

parties include the Forest Service, the Idaho SHPO, the ACHP, IPCo, Native American tribes, and Perpetua.

Archaeological Resource Protection Act (ARPA) of 1979: The purpose of ARPA, is to secure the protection of archaeological resources and sites which are on federal lands and tribal reservation lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources. The law applies to any agency that receives information that a direct or federally assisted activity could cause irreparable harm to prehistoric, historic, or archaeological data and provides criminal penalties for prohibited activities (16 U.S.C. § 470aa).

Native American Graves Protection and Repatriation Act (NAGPRA): The NAGPRA became law in 1990; the regulations implementing the statute were completed and went into effect in January 1996. This law formally affirms the rights of Native American tribes, Native Alaskan entities, and Native Hawaiian organizations to custody of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony with which they have a relationship of cultural affiliation. NAGPRA gives even stronger custody rights to lineal descendants when such a close relationship can be documented. In addition, the law and regulations describe procedures designed to ensure that all Americans can derive educational, historical, and scientific value from the remains and objects covered by the statute through public interpretation, documentation, and study (25 U.S.C. § 3001 et seq.).

Executive Order 11593 – Protection and Enhancement of the Cultural Environment: This EO (EO), signed in 1971, furthers the NEPA of 1969, the NHPA of 1966, and the Antiquities Act of 1906 by requiring federal agencies to administer cultural properties under their control and direct their policies so that federally owned sites, structures, and objects of historical, architectural, or archeological significance are preserved, restored, and maintained. To achieve this goal, federal agencies must review properties under their jurisdiction and nominate properties that qualify for listing on the NRHP. If any Federal action planned will substantially alter or demolish a property listed on the NRHP, federal agencies must make detailed records of the property and deposit those records in the Library of Congress for future use. Federal agencies must annually prepare and submit to the Secretary of the Interior and the ACHP procedures to provide for the maintenance, preservation, and restoration of federally owned sites. The EO also enumerates responsibilities of the Secretary of the Interior regarding such properties.

State and Local Policy: The Idaho State Historic Preservation Plan, *Preserving the Past, Enriching the Future, Idaho State Historic Preservation Plan, 2016-2022*, (ISHPO 2016) discusses trends affecting Idaho's cultural resources, presents preservation goals and objectives, and introduces broadly drawn categories for historic contexts as a framework for further development of this tool. The plan seeks to establish priorities and goals for historic preservation in Idaho and serve to unite a variety of historic preservation groups and professionals in implementing the plan's goals through an established framework.

The following state laws, as summarized in the Idaho State Historic Preservation Plan, apply to heritage resources:

- *Idaho Code 18-7027*: Prohibits the disturbance of prehistoric human burials, or the possession of human remains or artifacts removed from a burial, unless the excavation is conducted by a qualified archaeologist with the prior approval of the State Historical Society and the appropriate Indian tribe.
- *Idaho Code 27-501*: Assigns responsibilities to the agency for consultation, determination of appropriate actions, and providing for re-interment of human remains that have been disturbed.
- *Idaho Code 33-39*: Provides for the creation of an Idaho Archaeological Survey and designates the State Archaeologist as director.
- *Idaho Code 67-41*: States that the agency [Idaho State Historical Society] shall: Identify, preserve, and protect sites, monuments, and points of interest in Idaho of historic merit. (67-4114); Protect archaeological and vertebrate paleontological sites and resources on public land. (67-4119); Govern the agency and administer the powers and duties required to preserve and protect any historical record of the history and culture of Idaho" (67-4123). Senate Bill 1011 (2009), passed by the Senate and House and signed into law by the governor April 14, 2009, defines "historical record" as "any record, artifact, object, historical or archaeological site or structure, document, evidence or public or private writing pursuant to the provisions of title 9, Idaho Code, relevant to the history of the state of Idaho."; Encourage and promote interest in the history of Idaho. (67-4126 [2]); Collect, preserve, and exhibit artifacts and information illustrative of Idaho history, culture and society. (67-4126 [3]); and Identify historic, architectural, archaeological, and cultural sites, buildings, or districts, and to coordinate activities of local historic preservation commissions. (67-4126 [14]).
- *Idaho Code 67-46*: Gives authority to the agency to carry out the preservation and protection of the state's historic, archaeological, architectural, and cultural heritage resources. This section of code also authorizes municipalities to create historic preservation commissions, establish design review for historic districts, and carry out other historic preservation efforts at the local level.
- *Idaho Code 67-65*: The Idaho Local Planning Act of 1975 requires a local governments' comprehensive plan must include a component for "Special Areas or Sites." There must be an analysis of areas, sites, or structures of historical, archaeological, or architectural significance within the jurisdiction of the governing board.

3.17.4 Affected Environment

The heritage resources analysis area is in the upper East Fork SFSR drainage, approximately 3 miles west of the FCRNRW and approximately 10 air miles southeast of the village of Yellow Pine. The heritage resources analysis area comprises a heavily vegetated landscape marked by major river canyons and tributaries. The mine site is situated in the Salmon River Mountains, a high-relief mountainous physiographic province in central Idaho, and rests at an elevation of approximately 6,500 feet, with nearby mountains rising to elevations of approximately 7,800 to 8,900 feet amsl (Mitchell 2000). Major waterways include the East Fork SFSR, Meadow Creek, and Sugar Creek, and their numerous tributaries (Mitchell 2000). Vegetation in the heritage resources analysis area varies from riparian marsh wetland areas to spruce-fir forests.

Portions of the heritage resources analysis area have historically been heavily mined and modern mining disturbance occurs to the present day. The analysis area has been subject to extensive mining‐related activities over the past century including underground and open pit mining, heap leaching, ore processing,

smelting, tailings disposal, development rock disposal, construction of town and camp sites, haul roads, powerlines, landfills, waterway diversions, hydro-power dam development (and failure), etc. These past mining activities have resulted in impacts to the natural environment including deforestation and accelerated erosion; increased sedimentation; elevated metals loading in surface and ground waters; diversion and degradation of natural waterways, including the East Fork SFSR; blockages to anadromous fish passage; impaired water quality; and compromised fish habitat, waterways, and wetlands. Additionally, extensive forest fires have compounded the human‐created impacts and have increased soil erosion and impacted water quality. Other impact agents include but are not limited to previous road construction, and recreation related impacts such as dispersed camping, and non-motorized and motorized trail development.

3.17.4.1 Cultural Context

Cultural context refers to the past human groups that have used the analysis area for various purposes throughout the precontact period and the contact or historic period. In addition, the cultural context provides some information concerning indigenous communities' continued connections and practices in the analysis area along with the mining activities that have occurred at Stibnite during the modern era. More recent use of the analysis area has been related to mining (beginning in the mid-1800s), recreational activities, and traditional tribal hunting, fishing, and plant gathering among other practices. A historic context of the Stibnite area was prepared for the SGP (Midas Gold 2016a). Additionally, the Nez Perce Tribe, the Shoshone-Paiute Tribes, and the Shoshone-Bannock Tribes have prepared ethnographies of the analysis area (Battaglia 2018, 2023; Walker 2019; Lahren 2020). General archaeological themes in the analysis area and vicinity include pre-contact archaeology, ranching, settlement, Forest Service history, traditional practices, and mining. Detailed contextual information is presented in the Heritage Resources Specialist Report (Forest Service 2023l) and ethnographic information is also included in the SGP Tribal Rights and Interests Specialist Report (Forest Service 2023q).

Pre-contact Period

Native Americans were present in central Idaho as early as 15,000 years before the present (B.P.) (Gannon 2019). Paleoindian tools have been recovered from archaeological sites in Valley County, including a Clovis projectile point, or spearhead, in Yellow Pine during excavations for a church in 1985. Artifacts also have been found along Johnson Creek and the Middle and South Forks of the Salmon River (Woods 2002). Eligible archaeological historic properties have been recorded along the area's river corridors and in high elevations. More recent evidence of Archaic occupation in the analysis area is seen in precontact site 10VY1488, recorded in 2016. The site contains stone tool chipping debris and projectile point types that date to the Archaic period or from around 4,000 B.P. (Lahren and Pollock 2016).

Since the early systematic archaeological research work in Idaho of Swanson (Swanson 1972) and Butler in the 1960s and early 1970s (Butler 1978, 1986), a variety of precontact chronologies for Idaho have been developed by Pavesic (1978), Franzen (1981), Reed et al. (1986), Holmer (1986, 1994), Plew (2008), Meatte (1990), Lohse (1993), Roll and Hackenberger (1998), Yohe and Woods (2002), and Simms (2008). These researchers (among others) studied settlement, subsistence, technology, and cultural interaction of indigenous groups in the analysis area. These overviews provide understanding of the different degrees of cultural continuity and variability presented in the archaeological record. Plew (2008) developed a chronology that combines some of these sequences.

Paleoindian Tradition (15,000-9,000 B.P.). The Paleoindian Tradition centers on the hunting of big-game animals that became extinct during the terminal phase of the Late Pleistocene or in the early Holocene. Paleoindian people were extensively mobile and engaged in a food economy driven by the availability of big game that ranged widely across the landscape (Simms 2008). It is assumed their diet also included small game and plants (Lohse 1993). Generally, archaeological evidence for the Paleoindian Tradition in upland areas of central Idaho are most clearly associated with the presence of Clovis and Western Stemmed Tradition projectile points (Beck and Jones 2010). Recent investigations at the Cooper's Ferry Site on the Salmon River in western Idaho, however, suggest the possibility that Paleoindian peoples were present in the region approximately 16,000 years B.P., well before the traditionally accepted timeframe associated with Clovis technology (Davis et al. 2019). The Cooper's Ferry site is also known by the Nez Perce Tribe as an ancient village site named *Nipéhe*.

Archaic Tradition (8,000 - 250 B.P.). At the end of the Paleoindian Tradition nearly 8,000 years ago, environmental conditions in Idaho became warmer and drier, resulting in lifeway changes and, thus, changes in artifact assemblages (Butler 1978). An important addition to the assemblage was the introduction of the atlatl and associated corner- and side-notched projectile points. In addition, material items associated with an increasingly diverse and complex hunter-gatherer society emerged (Plew 2008). Reed et al. (1986) divided the Archaic Tradition into three subperiods: Early, Middle, and Late, each lasting nearly 3,000 years. Lower Johnson Creek contains several sites representative of the Early Archaic period in western Idaho (Forest Service 2010a).

Ethnohistoric Period

Ancestors of the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes were the aboriginal inhabitants of this region of Idaho. Their aboriginal territory covered parts of present-day Oregon, Washington, and Idaho. This area included several major river basins: the Columbia, the Salmon, the Snake, and the Clearwater (Indian Claims Commission 1961). The Nez Perce Tribe's aboriginal territory and lifeways are associated with the Columbia Plateau, whereas the Shoshone-Bannock Tribes and Shoshone Paiute Tribes aboriginal territories and lifeways are associated with the Great Basin.

Prior to Euroamerican contact, the *Niimi'ipuu* (Nez Perce) were the dominant people of the Columbia Plateau, with a an estimated 17,000,000-acre territory in regions of Washington, Oregon, Montana, and Idaho, between the Cascade Range in the west to the Bitterroot Mountains in the east (Josephy 1971). Within the territory, several tribes from the Rockies in the east and the Pacific coast in the west were tied together via an extensive trade network. The *Niimi'ipuu* are part of the Sahaptin language family; they formed composite bands generally based on familiar ties, language, and territory (Idaho Centennial Commission Native Americans Committee [ICCNAC] 1992; Walker 1982). The settlement and subsistence patterns of the *Niimi'ipuu* were varied and linked to resource distribution and environmental features (Churchill 1983). Anadromous fish, such as Chinook salmon, roots, such as camas, and a variety of game were, and continue to be, important subsistence resources (Hunn et al. 1998; Nez Perce Tribe 2019, 2020a). The *Niimi'ipuu* engaged in fishing, hunting, and gathering across their vast aboriginal territory, and these activities still play a major role in the culture, religion, subsistence, and commerce of the Nez Perce Tribe (Nez Perce 2017).

The Northern or Snake River Shoshone and Bannock, all part of the Numic language family, occupied an area generally along the Snake River Plain, but their territory also included most of southern Idaho, western Wyoming, and Montana, and south into Nevada and Utah (ICCNAC 1992; Murphy and Murphy 1986; Walker 1982). The Northern Paiutes left the Nevada and Utah regions for southern Idaho in the 1600s and traveled with the Shoshones in pursuit of bison; this band of Paiute became known as Bannocks (Shoshone-Bannock 2021). The northern portion of their territory in Idaho included present day Adams and Valley counties. The four Northern Shoshone band divisions included: (1) the Western Shoshone (Waareekas), including the Boise and the Bruneaus; (2) the Mountain Lemhi Shoshone, including the Dukudeka (Sheepeaters) and the Agaidikas (Salmoneaters); (3) the Northwestern Shoshone, including the Bear Lakes, Cache Valley, Bannock Creek, and Weber Ute; and (4) the Pohogue (Fort Hall) Shoshone (Forest Service and Bureau of Land Management 1997). The Newe (Shoshone-Bannock) traveled seasonally within their aboriginal territory, often visiting locations annually to gather and hunt (including fishing), among other practices throughout central Idaho's Salmon River Mountains and other areas (Forest Service 2003a; Murphy and Murphy 1986). In the northern part of the territory were the Mountain Lemhi Shoshone, who wintered along the Lemhi River, a tributary of the SFSR. The Lemhi depended heavily on salmon runs in the Salmon River system for their subsistence. Fish were harvested either individually by harpoon or utilizing weirs across stream channels, basket traps, or seines and hand nets (Murphy and Murphy 1986). Important animals and plants for subsistence included salmon, deer, elk, moose, mountain sheep, bison, various nuts, seeds, berries, and roots, such as camas for food and osha/bear root for medicine. Small game animals, including, groundhog, jack rabbit, porcupines, and prairie dogs, also were used extensively especially in sagebrush steppe ecosystems (ICCNAC 1992; Walker 1982, 2019).

Ancestral bands of Western Shoshone and Northern Paiute traveled in small groups over a vast territory centered around southern Idaho, northern Nevada, and southeastern Oregon (Fowler and Liljeblad 1986; Thomas et al. 1986). The Dukudeka or Sheepeater band of Mountain Shoshone, a subset of Western Shoshone peoples, lived in parts of what is now the PNF Krassel District, McCall District, and the FCRNRW and the surrounding area and to the east into Montana and Wyoming. The Northern Paiute lived in two major bands in territories centering on the upper Snake and Owyhee Rivers, respectively. They used many of the same fishing and camas gathering areas as the Western Shoshone bands. Both the Western Shoshone and the Paiute were somewhat isolated by the Rocky Mountains and the Great Basin. They necessarily relied more on plant foods, such as sunflowers, wada seeds, currants, and huckleberries, plus small animals and insects. Much time was spent pursuing food based on seasonal cycles. In May, they left winter villages to gather roots and prepare salmon traps. At the end of the salmon runs, people dispersed to hunt and gather plants and insects. Communal rabbit and antelope drives and wada seed gathering occurred in early fall. By November, food had been stored, and the people returned to the winter villages (Walker 1982, 2019). More detailed tribal histories are provided in **Section 3.24**.

Contact, Historic Period, and Modern Era

The contact period is generally defined as beginning with the first Euroamerican and Native American contact. For this area, the Lewis and Clark Expedition of 1805 is most often referenced. Lewis and Clark's Corps of Discovery precipitated an era of rapid Euroamerican exploration and settlement, which advanced regionally with the arrival of early explorers, fur traders, and missionaries. Circa 1810, British and American fur trading posts were being established throughout the Pacific Northwest. However,

contact was still limited in the remote mountains of central Idaho, but there were several meeting places known to the Euroamerican settlers and frontiersmen in Valley County, including an annual summer meeting at the north shore of Payette Lake where various indigenous peoples, including the *Newe*/Shoshone and the *Niimi'ipuu*/Nez Perce gathered.

By 1900, most members of the Nez Perce Tribe, the Shoshone-Bannock Tribes, and the Shoshone-Paiute Tribes lived on reservations away from the mountains of central Idaho (Forest Service 2003a). However, the analysis area is still used by and of interest to these tribes (Battaglia 2018, 2023; Forest Service 2003a, 2010a; Lahren 2020; Walker 2019). More detailed tribal histories are provided in the SGP Tribal Rights and Interests Specialist Report (Forest Service 2023q).

The communities of Yellow Pine and Roosevelt, as well as ranches along Johnson Creek, were first established in the early 1890s to support the mining boom in the nearby Big Creek area and the Thunder Mountain gold rush of the mid-1890s (Forest Service 2015c). Initial reports from the gold deposit at Thunder Mountain (the Dewey Mine) were very favorable, and, in 1902, its promise lured over 2,000 prospectors between 1902 and 1906, creating the boom town of Roosevelt. Thunder Mountain Road was established along a Native American travel corridor at this time to access Roosevelt from Emmett via Long Valley (Woods 2002). The mining boom at Thunder Mountain was short lived, as initial reports of the gold deposits were highly exaggerated. Mining ceased altogether in 1909 when a mudslide caused flooding and the subsequent evacuation and destruction of the community of Roosevelt. Thunder Mountain had a brief resurgence for a few years with an open pit at the Dewey Mine after gold prices had increased and access had been improved in the 1930s (McKay 2011).

The first work in the Stibnite-Yellow Pine Mining District, not to be confused with the smaller Stibnite Historic District, may have occurred as early as the 1860s, but the Stibnite area was not developed until after the turn of the 20th Century (Forest Service 2015c). Though ore deposits were discovered in the Stibnite area during the early 1900s in conjunction with the Thunder Mountain gold rush, Stibnite was more remote than other areas in the Stibnite-Yellow Pine Mining District, and, with the technology of the times, the gold and silver were difficult to separate from the antimony-gold-silver ore that was prevalent in the area.

There were two primary periods of heavy production in the Stibnite area: 1) a period encompassing World War I and World War II, which ended in the 1950s and 2) a period that began with exploratory activities in 1974 with intentions to re-open the historic mines, which led to open pit mining and seasonal on-off heap leaching through the 1990s (Midas Gold 2016a).

The community of Stibnite was established in the 1920s and substantially boomed during World War II when it swelled to a peak population of 1,500 permanent residents (Bertram 1986). The post office was established in Stibnite in 1927 and the community's name was chosen because the town names of Meadow Creek and Bradley were already taken when Bailey applied for a post office (Bailey 1979; Woods 2002). Stibnite is an antimony sulfide, and the largest known deposits of that sulfide in the U.S. are found in the Stibnite-Yellow Pine Mining District (McKay 2011).

During World War II, the Stibnite mines were one of the nation's leading producers of minerals needed in the war effort, including antimony and tungsten. The mines produced an estimated 90 percent of the

nation's domestic supply of antimony and 40 percent of its tungsten supply during this boom (Bertram 1986). I By the end of the war, tungsten deposits were played out, and the mine continued with low-grade antimony and gold, but it was no longer profitable (Forest Service 2015c). By June 1952, production had ended, and, in 1957, mine operations ceased altogether. Beginning in 1954, homes and community buildings were abandoned or moved to Cascade, Yellow Pine, or McCall (Bertram 1986; Hart 1979; Mitchell 2000; Petersen 1999; Woods 2002).

In the 1970s, Ranchers Exploration and Development Company leased part of the mine at Stibnite, and plans were made to reopen it, but nothing happened until a decade later when Ranchers Exploration and Development Company merged with Hecla Mining Company and continued development work for a few more years. At the time, Hecla Mining Company negotiated a deal with Pioneer Metals to use their leach plant at Stibnite, and, by 1988, Yellow Pine Mine at Stibnite was producing the third-largest amount of gold in the state from open pit oxide ores mined in the Homestake area (northeast of the Yellow Pine pit) and at West End (Mitchell 2000). Waste rock from these operations was dumped close to these pits.

Throughout the 1980s and 1990s, several companies operated heap leach gold and silver facilities in the area around Meadow Creek near the former Stibnite mill and smelter location. Some of these leach pads have since been covered with fill, while the Hecla leach pad remains stacked with leached ore. Work under several different mining companies continued intermittently until 1997. This work left a deposit over 50 feet deep of spent heap leach ore in an area now known as the SODA, on top of the Bradley tailings. Exploration and evaluation work did not occur again until 2009 when affiliates of Perpetua began exploration work in the Hangar Flats area (Midas Gold 2016a).

3.17.4.2 Heritage Resources Inventories

In an effort to identify previously recorded heritage resources and previously conducted heritage resources surveys within the APE, records searches were conducted by both the respective PNF and BNF Heritage Program staff and by Lahren (2020) on behalf of Midas Gold. A summary of the records searches and those results follow.

In April of 2012, a records search (#12221) from the Idaho SHPO to determine the presence or absence of previously recorded archaeological sites and the extent of survey coverage in and within 1 mile of the 2012 survey area, which focused on the mine area. The results of the 2012 SHPO records search indicated that 53 archaeological investigations have been completed within the analysis area.

Surveys conducted within the APE and associated with the SGP took place in 2018 and 2019, when AECOM conducted a re-evaluation of the Stibnite Historic District (Historic District); a survey of the 38.2-mile proposed Burntlog Route, and the 5.3-mile Riordan Creek reroute alignment. The final report of that fieldwork (AECOM 2020h) was submitted to the Idaho SHPO by the Forest Service. The Idaho SHPO responded with a concurrence letter on June 30, 2020 (Johansson 2020).

In November of 2021 and January of 2022, PNF staff requested a records search (#21462 and #22109, respectively) from the Idaho SHPO to update and augment the previous records searches performed for the SGP area. These included not only the SGP area but also other project components comprising the APE such as access roads and the associated transmission line corridor. The records searches included data from the Idaho Archaeological Inventory, the Idaho Historic Sites Inventory, and survey reports filed

with the Idaho SHPO office. These records searches combined were conducted on the entire VAV APE to provide adequate background information regarding heritage resources. A summary of the previous surveys is included in Appendix A of the SGP Heritage Resources Specialist Report (Forest Service 2023l).

In 2021, ARH Archaeology conducted surveys in the APE for the ASAOC project associated with the SGP. They identified eight cultural resource sites. The PNF Heritage Program has determined that these sites are ineligible for inclusion on the NRHP. All eight sites are historic mining sites associated with the Stibnite Historic District (10VY261/PY-457), which was determined to no longer be eligible due to a lack of integrity as a result of removal and significant disturbance over the last fifty years (SHPO Stibnite Historic District Concurrence Letter 11/13/2020).

PNF Heritage Program archaeologists conducted additional supplemental surveys and site updates for 13 heritage resources in 2021 to document features not previously recorded. Although new features were documented, PNF archaeologists determined the sites lack integrity, a determination congruent with the reevaluation of the Stibnite Historic District.

In 2021, the BNF conducted a reconnaissance survey to document effects to historic properties due to the 2020 Buck Fire. This effort redocumented 14 sites and recorded 1 new site of which 4 were determined eligible, 6 unevaluated, and 5 ineligible for the NRHP. Idaho SHPO concurred with these determinations on February 14, 2022.

In 2022 and 2023, a heritage resources assessment was conducted for unevaluated heritage resources identified by the PNF and BNF Heritage Program Managers as priorities for informing the development of the PA and assessments of adverse effect. The purpose of the field assessment was to revisit sites identified as having the potential to be affected by the SGP and that had not received a formal evaluation for NRHP eligibility. A total of 47 heritage resources were identified for this review and included nine heritage resources identified by the PNF and BNF but not yet recorded with the Idaho SHPO. This effort also included contacting private landowners along the transmission line route to request permission to access their lands to conduct field assessments for the purpose of revisiting previously recorded heritage resources on private lands, but also to identify if additional heritage resources may be present and would be affected by the SGP. Not all access was granted and therefore not all of the 47 heritage resources were revisited. However, private lands within the bounds of the National Forest System were visited by PNF heritage resources staff. Compilation of this data is ongoing and consultation with the Idaho SHPO is pending. Unevaluated heritage resources are addressed the same way as eligible heritage resources for the assessment of Project impacts as well as historic properties management and treatment until such time that their eligibility is determined.

The APE encompasses the Operations Area Boundary, which is defined as the area within which Perpetua would control public access. The Operations Area Boundary includes 14,221 acres of which over 12,000 acres has been inventoried for heritage resources, either through intensive pedestrian transects or reconnaissance survey if conditions were too steep or dangerous, or if previously disturbed conditions existed; therefore, over 80 percent of the Operations Area Boundary has been inventoried.

3.17.4.3 Heritage Resources

As identified through the records searches and as a result of the previous surveys documented with the Idaho SHPO through January 2022, a total of 241 heritage resources, including archaeological sites and above-ground resources, have been recorded in the APEs. An additional 9 heritage resources have been identified by the Forest Service within the APEs that have not been assigned state site numbers as site records have not been submitted to the Idaho SHPO. These resources were documented during the 2022 and 2023 field seasons. State site numbers and eligibility recommendations are pending. As noted above, pending sites are addressed as eligible sites for the assessment of Project impacts until their eligibility is determined.

Of the 250 heritage resources, 100 have been determined not eligible for listing on the NRHP and would require no further management. The remaining 150 sites; however, would require additional consideration and/or management if impacted by the SGP and its components and include 64 resources documented as eligible for listing on the NRHP, 3 National Register-listed resources, and 83 resources identified as unevaluated for listing on the NRHP.

Not all of the unevaluated resources within the analysis area will be determined to be historic properties and others may not be impacted by SGP activities dependent upon their eligibility and location. However, for purposes of the effects assessments, unevaluated resources will be treated as eligible until they are assessed in the field and eligibility determinations are consulted on with the Idaho SHPO and Native American tribal partners. Through consultation between the PNF and the Idaho SHPO office in 2020, the Stibnite/Meadow Creek Historic District (10VY262/85-335; NR Inventory #87001186) was re-evaluated for its NRHP eligibility and was determined to no longer be eligible for listing on the NRHP. The SHPO concurred with the PNF's determination of no longer eligible for listing on the NRHP by letter dated January 27, 2021. No further management consideration for the Stibnite Historic District or individual associated resources located within the historic district, as defined in the correspondence between the PNF and the SHPO, is required. Similarly, IPCo's Transmission Line 328 was reexamined and reevaluated by IPCo during a maintenance project which resulted in a recommendation that the line is no longer eligible for the NRHP. The Idaho SHPO concurred with that determination on November 28, 2022 (SHPO Rev. No. 2023-75).

3.17.4.4 Traditional Cultural Properties and Cultural Landscapes

Ethnographic studies have been completed for the SGP by the Nez Perce Tribe (Battaglia 2018, 2023), the Shoshone-Paiute Tribes (Walker 2019), and the Shoshone-Bannock Tribes (Lahren 2020) to assist in identifying TCPs and CLs, as defined by the NPS.

The Nez Perce Tribe's ethnographies, reviewed by the Heritage Resources Program Manager, describes areas and resources that the Nez Perce Tribe is most concerned with and indicates the potential for TCPs and/or CLs to exist in the analysis area. However, specific TCPs or CLs, as defined by the NPS (NPS 2020; Parker and King 1998), have not been documented. General types of landscape features noted in the Nez Perce Tribe ethnographies (Battaglia 2018, 2023) as having specific significance include: viewsheds and soundscapes, water and waterways, minerals, driftwood, culturally modified trees, hot springs, trails, and travel corridors. The Nez Perce Tribe have conveyed in their ethnography and during tribal consultations that the Thunder Mountain Road and Johnson Creek Road are part of a traditional tribal

travel route system used by the Tribe (Battaglia 2023). Further details regarding places of tribal importance are presented in the Heritage Resources Specialist Report (Forest Service 2023l).

The Shoshone-Paiute Tribes' ethnography (Walker 2019) is framed as a broad overview of their cultural connection to the analysis area and does not go into specific locations of places of tribal importance. However, general types of landscape features noted in the Shoshone-Paiute Tribes' ethnography as having specific significance include: buttes; rock features and rock alignments; springs and hot springs; trails and travel routes; river and stream canyons; rock structures; valleys; and caves and rock shelters. The Shoshone-Paiute Tribes' ethnography also identifies significant species of flora and fauna that may be located within the SGP APEs that are further detailed in the SGP Heritage Resources Specialist Report (Forest Service 2023l).

The Shoshone-Bannock Tribes ethnography (Lahren 2020) identifies the SFSR and broader area as a tribal cultural landscape that supports the hunting of salmon, gathering food, collecting berries, harvesting medicinal plants, and hunting big and small game, among other cultural practices. Details on other places of importance identified in the ethnography are presented in the SGP Heritage Resources Specialist Report (Forest Service 2023l).

Currently, there are no TCPs or CLs as defined by the NPS and meeting NRHP eligibility criteria within the analysis area for heritage resources. However, the Forest Service will continue to consult with the Tribes on the Project.

3.18 Public Health and Safety

3.18.1 Introduction

3.18.2 Public Health and Safety Area of Analysis

Public health and safety is related to the overall health and well-being of populations within the affects area of the SGP. The National Research Council guidance lists five general categories that should be addressed as part of a public health evaluation to systematically select the issues that need to be addressed for a project. These five categories are: environment, economy, infrastructure, services, and demographics. Five types of health impacts are assessed for each area (National Research Council 2011):

- **Chronic Disease:** For the purposes of this evaluation, chronic diseases are health conditions that persist for long periods of time (i.e., 3 months or longer) and are non-communicable, such as heart disease, cancer, or asthma.
- **Infectious Disease:** Infectious diseases are associated with viral, bacterial, or microbial infections and are commonly transferred from person to person through direct contact, such as influenza.
- **Injury:** Unintentional or accidental event resulting in injury or trauma, such as a car accident or fall.
- **Nutrition:** Impacts to health (positive or negative) associated with diet.
- **Well-being/psychosocial effects:** Well-being and psychosocial effects consider the social and cultural well-being of the populations.

Impacts to the environment are typically evaluated based on potential impacts to various environmental media (i.e., air, soil, groundwater, and surface water). This analysis focuses on whether hazardous pollutants could be emitted by activities of the SGP and enter environmental media at levels that could be a health concern. Health concern is evaluated by considering the amount of human exposure to potentially impacted environmental media. Human exposure to environmental media can occur through several pathways of exposure (e.g., inhalation of vapors or particulates in air, incidental ingestion or skin contact with impacted soils, and ingestion or skin contact with impacted groundwater or surface water).

In addition to hazards from pollutant-impacted environmental media, the existing terrain and characteristics of the environment can present certain natural hazards to public health and safety, such as:

- Geologic hazards (steep terrain, rock cliffs, avalanches, and landslides),
- Flash floods and water hazards, and
- Wildfires.

Economic conditions may have indirect impacts on health, as a result of the financial resources available to the local population or local government for health-related services.

Availability and changes to public services and infrastructure can have direct or indirect health benefits or consequences. For example, health benefits can occur if new water or sanitation systems reduce disease incidence rates for the local community. There may be negative impacts if new roads or transit corridors increase traffic accidents or negatively impact access to health-related services or activities.

Local demographics and the local population's health status are relevant to this analysis, as some populations are more sensitive to project effects due to preexisting health conditions, access to health care, availability of health insurance (Gresenz and Escarce 2011; Hadley 2003; Hadley and Cunningham 2005; Newton et al. 2008), and the potential for increased stress or annoyance levels for populations living or recreating nearest to the mining areas due to noise or vehicle traffic.

3.18.3 Relevant Laws, Regulations, Policies, and Plans

While NEPA does not directly address effects on public health and safety, it does require that an integrated analysis of health effects be addressed for an environmental impacts analysis. The scope of this analysis is limited to affected communities outside of the Operations Area Boundary and associated facilities and does not include a direct evaluation of the anticipated workforce safety and health issues. All worker health issues are covered under the OSHA and the MSHA, as described below.

Occupational Safety and Health Act of 1970 – This was passed to prevent workers from being killed or seriously harmed at work. This law created OSHA, which sets and enforces protective workplace safety and health standards. Under OSHA, employers have the responsibility to provide a safe workplace (OSHA 2019).

Mine Safety and Health Administration - The U.S. Department of Labor's MSHA works to prevent death, illness, and injury from mining activities and promote safe and healthful workplaces for U.S. miners. MSHA carries out the provisions of the Federal Mine Safety and Health Act of 1977 as amended by the Mine Improvement and New Emergency Response Act of 2006 (MSHA 2019).

The National Forest Land and Resource Management Plans - These embody the provisions of the NFMA and guide natural resource management activities on NFS land. Physical, social, and biological resources on NFS lands are managed to achieve a desired condition that supports a broad range of biodiversity and social and economic opportunity. Payette Forest Plan (Forest Service 2003a), and the Boise Forest Plan (Forest Service 2010a) provide management prescriptions designed to realize goals for achieving desired condition for public health and safety and include various objectives, guidelines, and standards for this purpose.

Valley County Comprehensive Plan - "The purpose of the Comprehensive Plan is not to control land, but to prevent uses of land harmful to the community in general." The underlying objectives of the plan promote the health, safety, and general welfare of the people of Valley County, and aim to protect citizens from unsafe or unhealthy conditions caused by growth and development in the county (Valley County 2018a).

3.18.4 Affected Environment

Many natural and human-made public health and safety hazards are present in the analysis area, ranging from avalanches and wildfires to past and present storage and transportation of hazardous materials related to mine operations. Most of the analysis area is open to the public as most of the land is public land managed by the Forest Service.

Common users of the analysis area include Perpetua and Forest Service employees, residents of the village of Yellow Pine, tribal members, and recreationists. Recreation is a major use throughout much of the analysis area, and activities commonly include hunting, fishing, paddle boating, sightseeing, hiking, camping, all-terrain vehicle use, snowmobiling, and horseback riding. The remote nature of the analysis area presents numerous challenges for emergency operations, which include emergency management services and evacuation procedures.

The following section includes an assessment of the existing environmental conditions, socioeconomic conditions, public services and infrastructure related to public health and safety, and demographics with respect to land use and baseline community health conditions.

3.18.4.1 Environment and Health

Public health impacts associated with the environment could include exposure to pollutant-impacted media (e.g., air, soil, groundwater, and surface water), as well as potential physical hazards associated with the rugged, mountainous terrain in the analysis area. This section discusses the existing conditions of the environmental media and the physical terrain as they relate to public health and safety.

Baseline air quality measurements indicate current concentrations of the criteria air pollutants are well below the NAAQS for six criteria pollutants: particulate matter (including PM_{10} and $PM_{2.5}$), SO_2, NO_2, O_3, lead, and CO. The NAAQS are allowable concentration limits adopted by the State of Idaho into the Rules for the Control of Air Pollution in Idaho. HAPs are pollutants that are known or suspected to cause cancer, other serious health effects, or adverse environmental effects. There are currently no permitted sources of HAP emissions under Title V of the CAA in the vicinity of the analysis area. Thus, the

baseline concentrations of HAPs from human-made sources are likely within regulatory limits (Trinity Consultants 2017).

Reference area soil samples collected from undisturbed mineralized and non-mineralized zones near the mine site area indicated that concentrations of antimony and arsenic are consistently higher in samples collected from mineralized zones than in samples collected in non-mineralized zones (URS 2000b; Tetra Tech 2019a, 2021a). Sampling also showed elevated levels of arsenic, antimony, and mercury in areas disturbed by legacy mining relative to reference concentrations from both non-mineralized and mineralized zones. In 2003, the Agency for Toxic Substances and Disease Registry (ATSDR) completed a Public Health Assessment for the Stibnite/Yellow Pine Mining Area (ATSDR 2003). The assessment concluded that reasonable maximum exposure concentrations of arsenic and antimony in surface soil are unlikely to result in adverse public health effects for reclamation workers and recreational users of the site.

In addition to metals, soils may have been affected by historical spills of hazardous materials (such as petroleum hydrocarbons) now buried by legacy mine waste or natural deposition of eroded material. Current baseline conditions in the analysis area include limited use, transportation, and storage of hazardous materials and petroleum substances (e.g., diesel, gasoline, jet fuel, grease, and hydraulic oils) associated with Perpetua's existing exploration activities. The analysis area could currently be impacted by accidental releases of hazardous materials during transportation, use, or disposal of these materials.

In groundwater samples from alluvial and bedrock wells, analytes concentrations generally met regulatory criteria except for arsenic and antimony. Arsenic and antimony are considered the key chemicals of public health concern in groundwater in the analysis area. Highest groundwater concentrations were noted in wells directly downgradient of the legacy disturbed areas, with concentrations generally decreasing with distance away from those areas.

Yellow Pine's public water system uses surface water from Boulder Creek, which is located approximately 15 miles downstream of the Operations Area Boundary and is a tributary to the East Fork SFSR but drains an area unaffected by prior mining activities. Domestic water wells on record in Yellow Pine are located more than eight miles from the Project area. Because groundwater in the SGP area does not represent a drinking water source, the ATSDR Public Health Assessment eliminated groundwater quality from consideration as a public health concern (ATSDR 2003). Any potential future use of existing groundwater in the SGP would likely need to incorporate appropriate filtration or water treatment systems to remove conditions of concern due to meet regulatory criteria.

Based on surface water sampling and analyses, antimony, arsenic, and mercury are considered the key chemicals of public health interest in surface water in the analysis area and these constituents are naturally elevated in the region (Brown and Caldwell 2017a). The ATSDR Public Health Assessment (ATSDR 2003) evaluated potential public health risk associated with exposure to contaminants in surface water from the mine site and concluded that contaminants in surface water would be unlikely to result in adverse health effects for recreational users in the existing mine site (ATSDR 2003). In addition, the assessment concluded that for recreational fishers and even for local fishers from American Indian tribes, who have higher fish consumption rates (estimated at 2.5 times other recreational fishers), consumption of fish harvested from surface waters in the mine site is unlikely to result in any adverse health effects.

Common physical hazards related to terrain include extremely steep slopes, rock cliffs, uneven terrain, and fallen trees. Avalanches, rock falls, debris flows, and flash floods also present a potential hazard for travelers, recreationists, and Forest Service and Perpetua employees, and areas that are not traditionally flood-prone are subject to changes to the landscape caused by wildfires. Notable landslides and avalanches were experienced in 2014, 2017, 2019, and 2022 along the SFSR Road (FR 474/50674) and the Stibnite portion of the McCall-Stibnite Road (CR 50-412).

Superimposed on the physical terrain, the Operations Area Boundary contains some dilapidated structures, old mining equipment, underground mine openings (all collapsed and/or closed), and altered landscapes, such as mine pits, abandoned and reclaimed townsites, abandoned and reclaimed mine and exploration roads, hydroelectric generating foundations, municipal dumps at various locations, the reclaimed Hecla heap leach pad, the spent ore disposal area, and waste rock disposal areas. Because most of these hazards are on private land, unauthorized entry is considered trespassing, but these areas are easily accessible to the public. Efforts have been made by Perpetua to mitigate potential public safety issues related to these features. For example, "danger" and "no-trespassing" signs are posted near pits and waste rock disposal facilities where terrain is steep and benches could be unstable. Efforts also have been made to render old adits inaccessible by collapsing the entrances and posting warning signs. However, numerous hazards still exist throughout the mine site, including discarded sharp, rusted metal objects, foundation remnants, nails, glass, and other debris (HDR 2017n).

Wildfires can start and spread unpredictably and are highly dependent on changing weather patterns. Past wildfires in the analyses area presented health and safety risks to the public in 2000, 2006, 2007, 2019, and 2020.

3.18.4.2 Economics and Health

Approximately 10 percent of Valley County residents are below the poverty level, and median household and per capita incomes in Valley County are slightly higher than the statewide averages, but the percentage of people not in the labor force in Valley County is relatively high at 50.5 percent (SGP Social and Economic Conditions Specialist Report, Forest Service 2023o). The current economic ability to access health care is better than the Idaho statewide average.

3.18.4.3 Public Services/Infrastructure and Health

The analysis area is remote and limited services exist; most of the remaining mining infrastructure is abandoned. Significant improvements to off-site and on-site infrastructure would be necessary to support the proposed cleanup of legacy impacts and site reclamation, exploration, mining and ore processing, and closure. The following subsections summarize the existing infrastructure conditions and services most relevant to the public health and safety analysis.

Vehicle travel on FRs and CRs in the analysis area presents health and safety risks associated with traffic incidents. The analysis area experiences harsh weather conditions that pose potential travel hazards, especially during winter, when roads become snow-covered or icy. During winter, Valley County maintains only one route from Cascade to the analysis area, which follows Warm Lake Road (CR 10-579) to the intersection with SFSR Road (FR 474), then to the East Fork Stibnite Road portion of the McCall-Stibnite Road (CR 50-412) to the village of Yellow Pine. Perpetua maintains Stibnite Road (CR 50-412)

for access from the village of Yellow Pine to the SGP. All other existing routes to the mine site are not maintained (plowed or sanded) when snow-covered roads become impassable to vehicles. Currently, Warm Lake Road (CR 10-579) has the highest incident rate (eight vehicle accidents per year) out of the FRs, CRs, and state highway in the Project vicinity.

Potential public health and safety hazards associated with transmission lines are from exposure to electromagnetic fields (EMF) and shock hazards. From the Lake Fork substation, there is an existing 42-mile-long 69-kV electric transmission line that passes through Cascade and connects with a substation near Warm Lake. Electricity for Yellow Pine is currently provided by an existing 21.5-mile-long 12.5-kV electric distribution line that connects to the Warm Lake substation. Idaho Power Company's existing transmission line runs from its Lake Fork Substation south of McCall along its existing right-of-way to the Johnson Creek Airstrip. No power is currently supplied via a transmission line to the legacy mine site.

Direct contact with exposed or downed transmission lines could result in significant electrical shock. However, incidences of downed transmission lines occur rarely, typically the result of an accident, severe weather, or natural disaster. The magnetic fields generated by transmission lines can induce currents and voltages in nearby conductive objects such as metal fences, automobiles, and metal roofs or buildings that are close to transmission lines. The induced currents in these objects can result in a small electrical shock or a perceptible current when contacted by humans or animals. These small shocks are a nuisance, but do not cause physiological harm (NIEHS 2002).

Perpetua currently has and uses sanitary waste handling facilities at the exploration housing facility and other facilities that were approved by Valley County, IDEQ, and Idaho Department of Health and Human Services, namely packaged sewage treatment facilities, leach fields, and a recycling program that minimizes waste and trash delivery to area landfills (Midas 2016a).

In the event of a disaster or emergency, the local government's primary responsibility is to respond to the incident to preserve life and property. Most of the analysis area is located more than 30 miles from the nearest local emergency services as it is 68 miles from Cascade and 50 miles from McCall, the two closest communities with hospitals. The emergency transportation service stations for Life Flights are in Boise, Idaho and Ontario, Oregon and service up to a 175-mile radius area. Recently, a new helipad was added in Yellow Pine for emergency transport via Life Flight (Yellow Pine Times 2019). No urgent care or medical facilities are located close to the Operations Area Boundary or Yellow Pine; however, there is a Cascade Fire/EMS Paramedic Ambulance Substation in Yellow Pine, which allows the community to administer First Aid and Advanced Life Support (Yellow Pine Times 2018).

Fire protection is provided by fire-fighting agencies and districts in Valley County that serve the communities of Cascade, Donnelly, McCall, and Yellow Pine as well as the rural areas surrounding these towns. These fire districts provide 24-hour fire protection for businesses and residents and are mostly staffed by volunteers. In the event of a catastrophic emergency, all the fire-fighting districts, the American Red Cross Valley County Chapter, and Valley County personnel join forces to compose the Valley County Fire Working Group Collaborative. For larger scale emergencies, local officials may implement emergency statutes and ordinances and declare a local state of emergency to mobilize and commit their resources. If local governments do not have sufficient resources to handle an emergency, they can request the support of the Idaho Emergency Operations Center, which developed the Idaho Emergency

Operations Plan, a statewide comprehensive plan outlining disaster emergency response (Idaho Emergency Operations Center 2017).

3.18.4.4 Demographics and Health

As summarized in **Table 3.18-1**, Valley County ranks sixth best in the state for health outcomes, based on an equal weighting of length and quality of life. Valley County ranks fourth best in the state for overall health factors, based on weighted scores for health behaviors, clinical care, social and economic factors, and the physical environment.

Table 3.18-1 Valley County Health Ranking in the State of Idaho

Valley County Measure of Health	2019 County Report Rank (out of 44)
Health Outcomes (overall)	6
Length of Life	14
Quality of Life	1
Health Factors (overall)	4
Health Behaviors (tobacco, diet and exercise, alcohol use, high risk sexual behavior)	3
Clinical Care (Uninsured adults, primary care providers rate, preventable hospital stays, diabetic screenings)	2
Social and Economic Factors (education, employment, income, family and social support, community safety)	12
Physical Environment (air quality, built environment)	30

Source: County Health Rankings and Roadmap 2019

3.19 Recreation

3.19.1 Introduction

This section describes recreation resources, including recreation opportunities, physical facilities, access for recreation, and the setting in which recreation activities occur within the analysis area. This section also describes existing recreation uses/users and recreation-related special use permits.

3.19.2 Recreation Resources Area of Analysis

As shown in **Figure 3.19-1**, the analysis area for direct and indirect impacts to recreation includes PNF MA 13 (Big Creek/Stibnite), BNF MA 21 (Lower Johnson Creek), BNF MA 20 (Upper Johnson Creek), BNF MA 19 (Warm Lake), and a portion of BNF MA 17 (North Fork Payette River). The analysis area for recreation also includes a 5-mile radius from the major SGP components, and in some locations, extends outside the MA boundaries into the adjacent FCRNRW where recreation could be affected.

3.19.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and implementing regulations apply to the Proposed Action and Alternatives. The following is a list of laws, regulations, policies, and plans at the federal, state, or local level pertaining to Recreation. Additional descriptions of these regulations can be found in the SGP Recreation Specialist Report (Forest Service 2023m).

Land and Resource Management Plan: National Forest Land and Resource Management Plans embody the provisions of the NFMA and guide natural resource management activities on NFS land. The Payette Forest Plan (Forest Service 2003a), the Boise Forest Plan (Forest Service 2010a), and the FCRNRW Plan (Forest Service 2009d) provide management prescriptions designed to realize goals for achieving desired condition for recreation and include various objectives, guidelines, and standards for this purpose.

National Forest Management Act: The NFMA directs the Forest Service through the forest planning process to provide for a variety of multiple uses, including recreation. To implement the terms of the NFMA, the Forest Service developed the ROS to ensure "a broad spectrum of dispersed and developed recreation opportunities," which is described in further detail in Section 6.1.4, Recreation Setting (Forest Service 1982).

Travel Management Rule: Travel management planning is regulated by 36 CFR 212, 251, 261, and 295 – Travel Management; Designated Routes and Areas for Motor Vehicle Use; Final Rule. The final rule, effective in 2005, requires designation of roads, trails, and areas that are open to motor vehicle use by class of vehicle and applies to both summer and winter travel. The Travel Management Rule is divided into three subparts: A, B, and C (Forest Service 2019d).

Subpart A is the administration of the Forest Transportation System and includes the definitions for Part 212, which governs administration of the Forest Transportation System, designation of roads, trails, and areas for motor vehicle use (including OHVs). Subpart B is the designation of roads, trails, and areas for motor vehicle use. The motor vehicle use map is developed under 36 CFR 212.51 (Forest Service 2019d). Subpart C designates and regulates use specifically for OSVs. The Forest Service issued orders including maps showing the areas where OSV use is allowed, prohibited, or restricted.

Executive Order 11017: As stated in the 1962 EO 11017, the Recreation Advisory Council shall include advice to the Federal agencies concerned with respect to the following aspects of outdoor recreation resources: "(1) the protection and appropriate management of scenic areas, natural wonders, primitive areas, historic sites, and recreation areas of national significance, (2) the management of Federal lands for the broadest possible recreation benefit consistent with other essential uses, (3) the management and improvement of fish and wildlife resources for recreational purposes, (4) cooperation with and assistance to the States and local governments, (5) interstate arrangements, including Federal participation where authorized and necessary, and (6) vigorous and cooperative leadership in a nationwide recreation effort."

State of Idaho Local Land Use Planning Act (1972): As stated in Section 67-6502, the purpose of the State of Idaho Local Land Use Planning Act (1972) is, in part "to promote the health, safety, and general welfare of the people of the state of Idaho as follows: …10) to protect fish, wildlife, and recreation resources."

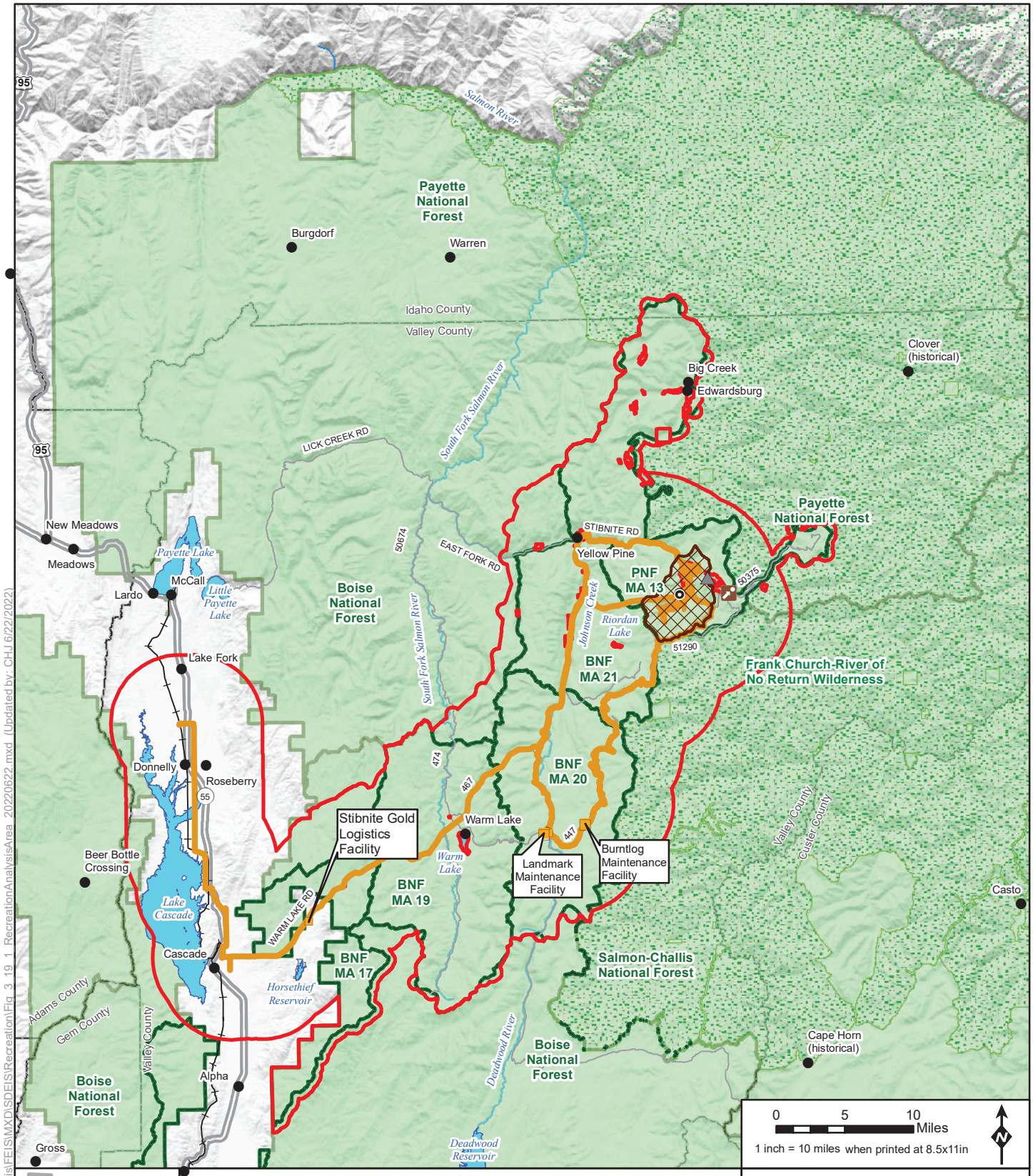


Figure 3.19-1
Recreation Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

Document Path: U:\20372\1981103 data\gis cad\gis\FEIS\MXD\SDEIS\Recreation\Fig 3 19 1 RecreationAnalysisArea 20220622.mxd (Updated by: CHJ 6/22/2022)

Idaho Outfitters and Guides Act: The Idaho Outfitters and Guides Act (Title 36, Chapter 21, Idaho Code) requires a license as a prerequisite for conducting outfitting and guiding. Under the Act, the Idaho Outfitters and Guides Licensing Board (IOGLB) is responsible for determining the qualifications for outfitters and guides and issuing state licenses to commercial outfitters and guides in the State of Idaho.

Valley County Comprehensive Plan: The purpose of the Valley County Comprehensive Plan is to promote the health, safety, and general welfare of the people of the state of Idaho, and in part, to ensure the protection of "fish, wildlife, and recreation resources" (Valley County 2018a). The Valley County Comprehensive Plan also includes a Recreation and Open Space goal "To promote and support a viable recreation and tourism program …" (Valley County 2018a). Objectives include creating improvements for more varied recreation opportunities, promoting development of new recreation facilities when compatible with land use goals, and protecting access to public lands (Valley County 2018a).

City of Cascade Comprehensive Plan: The City of Cascade Comprehensive Plan (City of Cascade 2018) recognizes recreation and open space as management elements that set forth the community's goals and objectives for expanded and enhanced recreational opportunities. One of the city's goals is to "Expand recreation and open space varieties and opportunities." The City of Cascade Comprehensive Plan recognizes the proximity of BNF recreational opportunities to residents and acknowledges that these recreational use areas are a major tourism driver.

3.19.4 Affected Environment

The analysis area is a popular area for a variety of recreation activities on both private and public lands. The village of Yellow Pine is located east of SH 55 in the analysis area, which offers limited services and had a year-round population of 32 in 2018 (Census 2018). There also is an unincorporated community in the Big Creek/Edwardsburg area, which has residents during the summer (Forest Service 2003a). **Figure 3.19-1** shows the recreation analysis area. The following sections describe the existing recreation opportunities, facilities, access, setting, use and users, and special use permits in the analysis area.

3.19.4.1 Recreation Opportunities

Summer and winter recreation opportunities are shown on Figures 6-1a through 6-1e and Figures 6-2a through 6-2e, respectively, in the Recreation Specialist Report (Forest Service 2023m). The analysis area includes over 170 miles of trails open to motorized use (Figures 6-3a and 6-3b of the Recreation Specialist Report [Forest Service 2023m]), of which over 60 percent are open to motorcycles and over 35 percent are open to vehicles 50 inches or less in width. Motorized recreation opportunities are available throughout the analysis area, including on trails in IRAs, which are predominantly in PNF MA 13 and BNF MAs 19, 20, and 21. Snowmobiling is popular on groomed OSV routes that branch off the plowed main routes through the analysis area (Figure 6-4 of the SGP Recreation Specialist Report [Forest Service 2023m]). Cross-country skiing opportunities are available in BNF MA 17 (Forest Service 2010a).

Summertime recreation opportunities such as hunting, fishing, hiking, camping, road cycling and mountain biking, river recreation, and horseback riding are popular throughout the analysis area with opportunities available at both developed facilities (e.g., campgrounds and trails) and at dispersed locations (e.g., dispersed camping areas and specially designated areas). Warm Lake is a destination for water-related recreation, such as boating and swimming. Backpacking and pack trips are popular in the

Big Creek area and from trailheads into the FCRNRW. Fishing opportunities are available throughout the analysis area, particularly at Johnson Creek, Warm Lake, South Fork Salmon River, and East Fork SFSR, for species such as salmon, steelhead, whitefish, and trout (Figure 6-1a through 6-1e of the SGP Recreation Specialist Report [Forest Service 2023m]). River recreation includes rafting, float boating, and kayaking. Within the analysis area, there are several put-in and take-out locations such as the put-in located about 1.5 miles east of Yellow Pine near Vibika Creek and the take-out located at Johnson Creek Road (Vibika Creek to Johnson Creek section; Riverfacts.com 2023).

Within the Operations Area Boundary, existing conditions represent an unreclaimed historical mine site and therefore, recreational activities are limited in the area and include sightseeing at the Stibnite Mining District Interpretive Site and potentially dispersed hiking, hunting, fishing.

3.19.4.2 Developed Recreation Facilities

The Warm Lake area contains most of the developed recreation facilities (apart from trailheads) in the analysis area. Forest Service campgrounds and other private recreation facilities are located in the Big Creek and Landmark areas and along Johnson Creek Road around and south of Yellow Pine. Privately-owned recreation facilities located at Warm Lake include lodges, organizational camps, and recreation residence tracts which are privately owned homes located on NFS lands. There is a lodge in the Big Creek area and one along Johnson Creek Road (Wapiti Meadow Ranch). Forest Service trailheads and trails exist throughout the analysis area, several of which provide access to the FCRNRW, summarized below and described in further detail in the SGP Recreation Specialist Report (Forest Service 2023m).

Recreation facilities on NFS lands in the analysis area include 16 campgrounds, two dispersed camping areas, 28 trailheads, two interpretive sites, four lookouts/cabins, one boating site, one swimming site, and two wildlife viewing sites. The analysis area contains approximately 340 miles of developed trails, about 51 percent (175 miles) of which are open to motorized recreation use. Appendix A of the SGP Recreation Specialist Report (Forest Service 2023m) provides a list of the trails open to motorized vehicles, the trail length within the analysis area, and the type of vehicles allowed on each trail. A total of 53 trails, about 49 percent of PNF and BNF developed trails (165 miles), are open for non-motorized trail use (biking, hiking, and/or horseback riding). Several of these trails are located adjacent to or within the FCRNRW, with trailheads located in PNF MA 13 and BNF Mas 20 and 21 providing access to trails in the FCRNRW, which are open to non-mechanized uses (e.g., hiking, backpacking, horseback riding). Appendix A of the SGP Recreation Specialist Report (Forest Service 2023m) provides a detailed list of all non-motorized trails in the analysis area.

Lake Cascade is located west of the existing IPCo transmission line corridor north and west of the BNF MA 17, accessible from a variety of roads located off SH 55 between Cascade and Donnelly. Lake Cascade State Park includes three day-use areas, two group day-use areas, 12 campgrounds, and six boat ramps (Idaho Parks and Recreation 2021). The park is open year-round and provides opportunities for camping, picnicking, hiking, mountain biking, swimming, cycling, boating, sailing, windsurfing, fishing, snowshoeing, Nordic skiing, and ice fishing (Idaho Parks and Recreation 2019).

3.19.4.3 Recreation Access

Access to the analysis area is primarily via paved roads that lead to unpaved county and NFS roads and is summarized below. Additional detail on all access roads is provided in Appendix A of the Recreation Specialist Report (Forest Service 2023m). The main access roads (from west to east) include SH 55 and Warm Lake Road to Landmark. From Landmark, the main access roads are county-maintained gravel roads that travel north to Yellow Pine and farther to Big Creek. These roads include Johnson Creek Road and Warren-Profile Gap Road. Yellow Pine also can be reached from McCall via the county-maintained McCall-Stibnite Road.

From these main roads, connecting unpaved NFS roads provide access to NFS lands and facilities. Primary Forest Service access roads (from west to east) in the analysis area include SFSR Road, Burnt Log Road, Old Thunder Mountain Road, Meadow Creek Lookout Road, and Thunder Mountain Road. In total, there are approximately 460 miles of NFS roads in the analysis area open to all motorized vehicles year-round, and approximately 23 miles of NFS roads open to motorized vehicles seasonally (during the summer). Approximately eight miles of NFS roads are open to all vehicles during the summer (June 1 to September 15) but are open year-round to motor vehicles that are 50 inches wide or less.

In the winter (generally from November 1 to May 15), there are 96 miles of groomed OSV routes on 14 NFS roads in the analysis area. There also are approximately 4 miles of infrequently groomed OSV routes on Burnt Log Road and West Fork Creek Road. Approximately 10 miles of the SFSR Road are plowed in the winter. Approximately 8 miles of the Johnson Creek road is plowed for street legal vehicle access from Yellow Pine south to Wapiti Meadows.

In total, the analysis area also includes over 110 miles of local, county, state, and private roads that may be used for motorized recreation or to access NFS motorized recreation routes. Portions of several of these roads are plowed in the winter, allowing winter access to the analysis area. Some recreationists choose to fly into the area rather than drive. The closest public airstrips are the Johnson Creek airstrip in BNF MA 21 south of Yellow Pine and a public airstrip at Big Creek in PNF MA 13, which serve local landowners and recreationists (Forest Service 2003a).

Access and Transportation is discussed in further detail in the SGP Access and Transportation Specialist Report (Forest Service 2023k).

Recreation Setting

The management of recreation opportunities is accomplished by the Forest Service through use of the ROS, which is a system for classifying and managing recreation opportunities on NFS lands based on the physical setting, social setting, and managerial setting. The physical setting is defined by the type of access, the level of remoteness, and the size of the area. The social setting is defined by user density, including the amount and type of interaction between individuals (i.e., parties per day encountered). The managerial setting is defined by the level of visitor management (regulations and information), facilities and site management, and degree of naturalness.

The combination of the three settings results in six different ROS classes, described in **Table 3.19-1**. Because recreation access and type changes across seasons, ROS classification also may vary by season.

For example, areas where motorized travel is prohibited during the summer may be open to OSV use during winter.

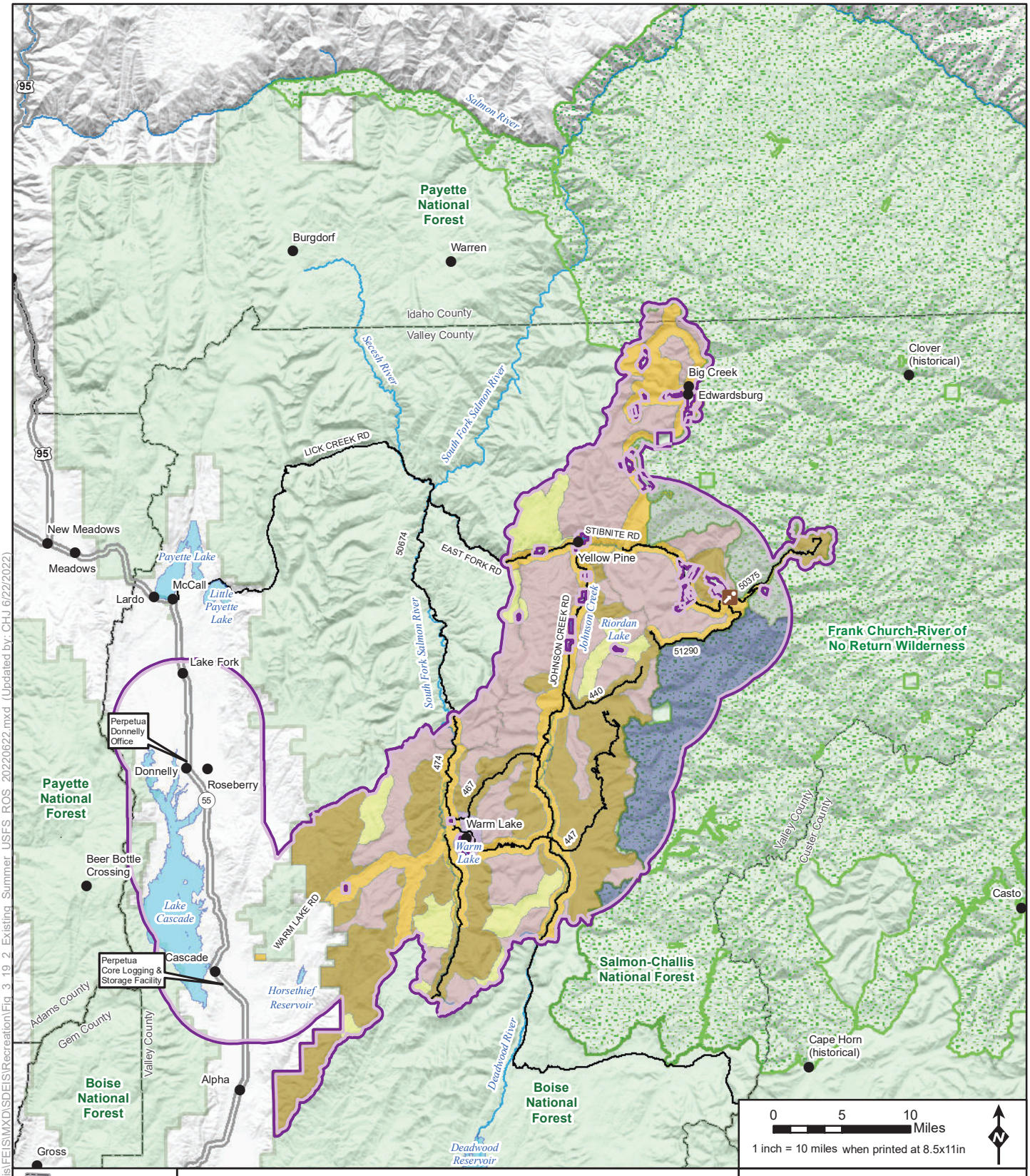
Table 3.19-1 Recreation Opportunity Spectrum Classes

ROS Class	Description
Primitive	Area characterized by essentially an unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and control. Motorized use in the area is not permitted.
Semi-Primitive Non-Motorized	Area is characterized by a natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present but are subtle. Motorized use is not permitted.
Semi-Primitive Motorized	Area is characterized by a natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present but are subtle. Motorized use is permitted.
Roaded Natural	Area is characterized by natural-appearing environments with moderate evidence of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities. Roaded Modified: A subset of Roaded Natural but includes a higher density of roads and may have management activities that dominate the landscape (Forest Service No Date).
Rural	Area is characterized by a substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sight and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate visitor densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.
Urban	Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resources modification and utilization practices are to enhance specific recreational activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans on-site are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motorized use and parking are available, with forms of mass transit often available to carry people throughout the site.

Source: AECOM 2020j; Forest Service 1982

Designated ROS Classes

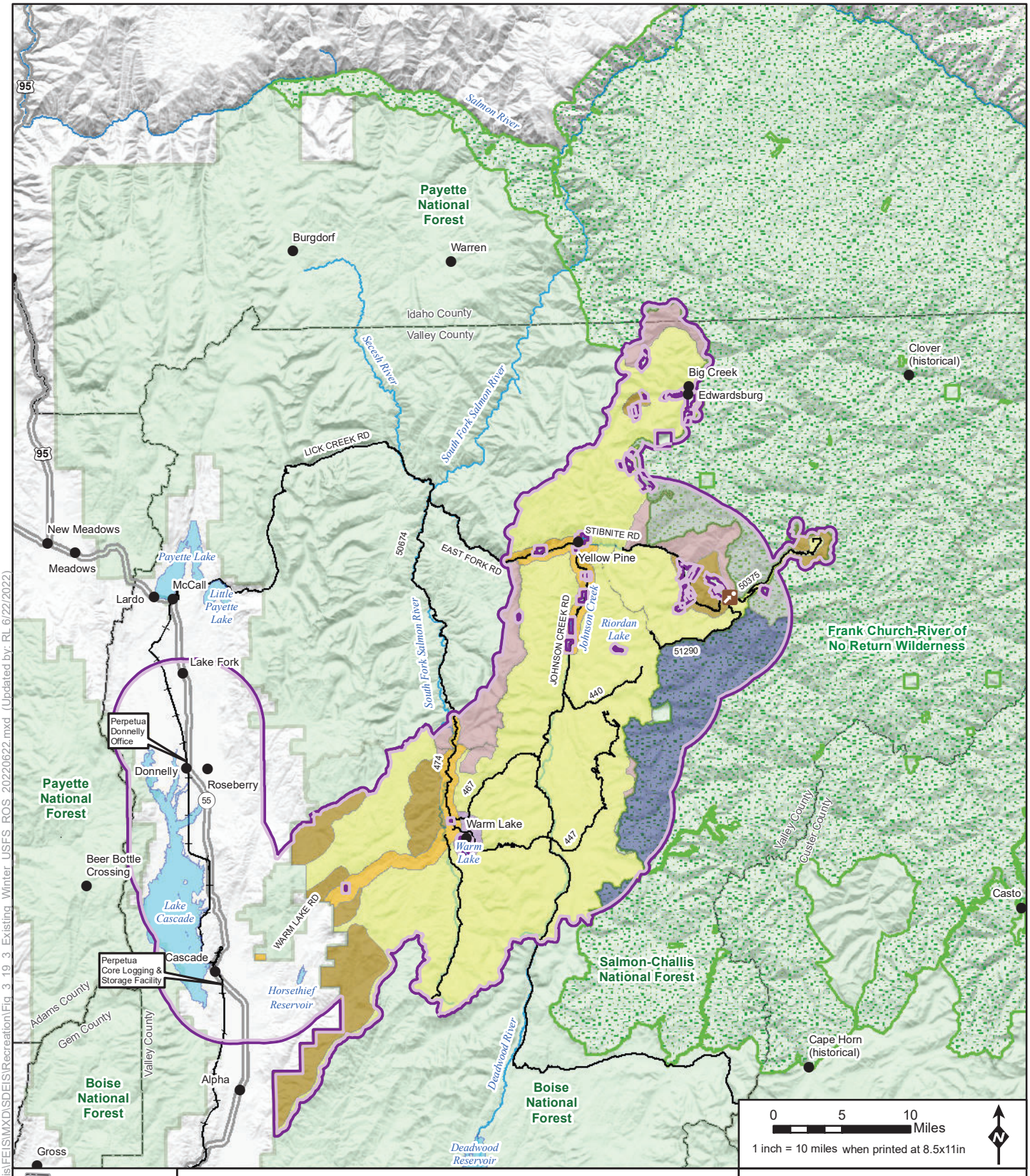
Figures 3.19-2 (Summer) and **3.19-3** (winter) show the existing designated ROS classes in the analysis area. The following text describes the applicable areas designated for each ROS category in the analysis area.



Document Path: U:\20372\1981103 data\gis cad\gis\FEIS\MXD\SDEIS\Recreation\Fig 3 19 2 Existing Summer USFS ROS 20220622.mxd (Updated by: CHJ 6/22/2022)

Figure 3.19-2
Existing Conditions
Recreation Opportunity Spectrum Summer
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS The National Map: 3D Elevation Program. USGS Earth Resources Observation & Science (ERO S) Center: GMTED2010. Data refreshed January, 2020.
Other Data Sources: Midas Gold; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette



LEGEND

Recreation Opportunity Spectrum (Winter)

- Primitive
- Rural
- Roaded Modified
- Roaded Natural
- Semi-Primitive Motorized
- Semi-Primitive Non-Motorized
- No ROS Data
- Recreation Analysis Area

Other Features

- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- Highway
- Road
- Stream/River
- Lake/Reservoir

Figure 3.19-3
Existing Conditions
Recreation Opportunity Spectrum Winter
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS The National Map: 3D Elevation Program. USGS Earth Resources Observation & Science (EROS) Center: GMTED2010. Data refreshed January, 2020. Other Data Sources: Midas Gold; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

Document Path: U:\20372\1981103 data\gis cad\gis\FEIS\MXD\SDEIS\Recreation\Fig 3 19 3 Existing Winter USFS ROS 20220622.mxd (Updated by: RL 6/22/2022)

As discussed above, ROS classes can vary by season, which is the case in the analysis area. Designated summer ROS classes in the analysis area include Rural, Roaded Natural, Roaded Modified, Semi-Primitive Motorized, Semi-Primitive Non-Motorized, and Primitive. Designated winter ROS classes in the analysis area include the same classes as the summer, with emphasis on Semi-Primitive Motorized. Acreages of designated summer and winter ROS classes within the analysis area are listed in detail in Appendix A of the SGP Recreation Specialist Report (Forest Service 2023m), and complete descriptions of the areas within each ROS class are provided in the same report.

ROS Physical Setting

Physical setting of a ROS class is defined by the absence or presence of human sights and sounds, physical size of an area, and the amount of environmental modification caused by human activity (Forest Service 2003b). This setting is established through three criteria: remoteness, size of area, and evidence of humans. The physical setting criteria generally correspond to ROS classes; however, ROS physical settings are not always consistent with the overall ROS class because the influence of social and managerial settings is not considered in the physical settings. The criteria for how the ROS physical settings in the area of analysis were determined and refined is further described in the SGP Recreation Specialist Report (Forest Service 2023m). In summary, ROS physical settings were determined based on motorized and non-motorized travel routes, including roads, motorized trails, and railroads. Motorized physical settings were classified as either Semi-Primitive Motorized or Roaded Natural. Non-motorized areas were classified as either Primitive or Semi-Primitive Non-Motorized based on size criteria.

The analysis area experiences a shift in ROS physical setting between summer and winter, primarily due to limited accessibility due to snow-cover. Roads and trails are obscured to recreation users and snow-cover provides overland travel opportunities that are not available during summer. Development of the winter ROS physical setting was based on the PNF and BNF winter travel management and criteria. Access is highly restricted in the analysis area and limited routes are plowed throughout the winter to permit passenger cars. The estimated summer ROS physical settings vary from the designated ROS classes in some areas. Portions of the FCRNRW that are designated as Primitive or with no ROS GIS data but located in the wilderness were determined to have a physical setting of Semi-Primitive Non-Motorized based on the adjacent physical setting and size.

In the winter, the main difference between designated ROS classes and physical settings is along Stibnite Road, Johnson Creek Road, Warm Lake Road, and SFSR Road. The areas surrounding these roads are designated as Roaded Natural and Semi-Primitive Motorized but have physical settings of Rural because these routes are plowed during the winter (unplowed portions are Semi-Primitive Motorized Groomed). Another main difference between designated ROS classes and physical settings are that many areas that are designated Roaded Modified have a physical setting of Semi-Primitive Motorized; however, the areas designated as Semi-Primitive Non-Motorized also have a physical setting of Semi-Primitive Non-Motorized in the winter. Areas with a physical setting of Primitive in the winter are similar to those described above for the summer.

3.19.4.4 Recreation Use and Users

This section discusses general recreation uses throughout the analysis area. Developed recreation use is limited to the developed recreation sites (i.e., overnight facilities) located primarily in the Warm Lake,

Landmark, and Johnson Creek Road areas. Most recreation in the analysis area is dispersed use, such as hunting, fishing, hiking, backpacking, and all-terrain vehicle use, which occurs outside of these developed recreation sites. Dispersed recreation use occurs year-round in the analysis area and is a primary use of all five management areas (Forest Service 2003a, 2010a). Motorized use typically occurs on NFS trails and roads while non-motorized uses generally occur in the FCRNRW, IRAs, and on non-motorized trails.

Although there are general visitation estimates available for the PNF (Fiscal Year 2018) and BNF (Fiscal Year 2019) as part of the National Visitor Use Monitoring Program, visitor use estimates are not available for specific management areas in the PNF or BNF in the analysis area; therefore, the information below represents visits for the entire PNF and BNF and not just the analysis area. Based on estimates from the National Visitor Use Monitoring data, undeveloped areas received over 50 percent of the estimated visits in both forests. Developed area use was higher in both forests at developed day use sites than at developed overnight sites. Use at developed day use areas was about 32 percent of visits for both PNF and BNF compared to overnight use, which was about 5 percent of visits for PNF and 11 percent of visits for BNF. There were no FCRNRW visits estimated at BNF. However, at PNF, FCRNRW use accounted for about 1 percent of total visits. Overall, the BNF was estimated to receive over 2.5 times more visits than the PNF (Forest Service 2019h, 2020f, 2020g, 2021c).

Recreation is considered a major use in the Big Creek area of PNF MA 13 (Forest Service 2003a), while the "remainder of the management area receives low to moderate dispersed use associated mainly with the Big Creek/Edwardsburg area, Missouri Ridge and Monumental Creek Trails into the FCRNRW, and high mountain lakes in the upper Profile Creek drainage" (Forest Service 2003a).As noted in the Payette Forest Plan for PNF MA 13, though most use is local, "users come through the area from all over the country to use the adjacent FCRNRW, especially during big-game hunting seasons" (Forest Service 2003a).

Hunting

The IDFG has divided the state into 78 GMUs to aid in wildlife and hunting management. The five management areas in the analysis area overlap three IDFG GMUs: 24, 25, and 26 (**Figure 3.19-1**). Collectively, these GMUs were used by approximately 7,370 hunters, and 1,288 big game individuals were harvested. GMU 24 is the most used compared to GMU 25 and 26. In GMU 24, 330 deer, 336 elk, 106 black bear, one mountain lion, and three wolves were harvested, and this GMU supported approximately 4,569 hunters. Compared to all GMUs throughout Idaho, GMU 24 ranks 21st in deer hunter usage, 35th in deer harvest, 12th in elk hunter usage, 18th in elk harvest, and 9th in black bear harvest. GMU 25 and 26 were used far less with hunter usage ranking ranged from 23rd to 87th and harvest total ranking ranged from 36th to 85th depending on the species. Much of the hunting within Idaho can be done by purchasing over the counter general tags, and many species (e.g., black bear, mountain lion, and turkey) do not have tag limits. Deer (i.e., Whitetail and Mule) and elk have tag limits in some instances. For nonresident hunters, there are 195, 77, and 155 tags available in GMU 24, 25, and 26, respectively (IDFG 2021a). Elk are managed by IDFG using Elk Zones. There are two Elk Zones (i.e., McCall and Middle Fork) within the analysis area, which also contain several GMUs outside of the analysis area. The McCall Zone contains four GMUs: 19A, 23, 24, and 25, which has 816 nonresident tags. The Middle Fork Zone contains three GMUs: 20A, 26, and 27, which has 3,187 nonresident and resident tags (IDFG 2021b, 2021c). Additionally, there are 24 outfitters and guides permitted in GMU 24, 14 permitted in GMU 25,

and 37 permitted in GMU 26 (IOGLB 2020a-c). GMU 26 is primarily in the FCRNRW and includes a portion of PNF MA 13. Only BNF MA 17 is in GMU 24. BNF MAs 19, 20, and 21, and most of PNF MA 13 are in GMU 25 (**Figure 3.19-1**).

Fishing

There are many fishing opportunities throughout the analysis area in lakes, streams, rivers, and reservoirs (Figures 6-1a through 6-1e of the SGP Recreation Specialist Report [Forest Service 2023m]). The BNF river and stream fishing as well as lake and pond fishing throughout the district are noted as excellent for fishing. The IDFG oversees fishing licenses for the State of Idaho, and the analysis area falls within the IDFG Southwest Region. Fishing licenses are required and can be purchased at many local dealers or through the IDFG. There are many species of fish for harvest within the IDFG Southwest Region, details of the species available, special rules by species, as well as limits by species can be found is the Idaho Fishing Season and Rules (IDFG 2021d).

Adventure Cycling and Mountain Biking

Cycling, such as adventure cycling and mountain biking, is available throughout the analysis area. Four adventure cycling routes have been developed with Cascade, Idaho as the hub. These routes from Cascade to Boise, East Mountain, Garden Valley, and Lick Creek consist of a mix of paved roads, dirt roads, Forest Service roads, and even some singletrack (Kopecky 2019). The majority of the Lick Creek loop, which includes the Warm Lake Road, the South Fork Salmon Creek Road, and the Lick Creek Road, as well as others, is within the recreation analysis area. Portions of the Idaho Hot Spring Mountain Bike Route, which includes the Warm Lake Road between Warm Lake and Landmark, are also within the analysis area (adventurecycling.org 2023). Mountain biking is allowed on both open and gated forest roads, as well as trails open to non-motorized uses (Figures 6-3a and 6-3b of the SGP Recreation Specialist Report [Forest Service 2023m]). Cross-country travel via a mountain bike is not permitted (USDA BNF 2021a, USDA PNF 2021a).

Recreational River Use

User data for recreational river use (e.g., rafting, paddle boating, float boating, kayaking) in this area is not tracked by the Forest Service. On the BNF, both day use and annual river passes are sold through vendors but not all users purchase day use passes. Annual passes don't represent actual physical presence on the rivers in days. Annual Passes admit up to four adults (people ages 15 and younger are free), so four adults and up to 70 children can be admitted for an annual pass. Any use above 75 people requires a special use permit for group activities (USDA BNF 2021b). In the analysis area, recreational river use is mostly in the SFSR with up to 100 permits issued. Use of the East Fork SFSR is minimal but does occur and does not require a permit.

Horseback Riding

Motorized and non-motorized trails throughout the district are available for use for horseback riding, such as the Johnson Creek Trail, but there are no trails solely dedicated to horseback riding in the BNF (USDA BNF 2021c).

Hiking

Numerous trails are available for day hiking and backpacking throughout the analysis area. The Forest Service provides details on the trails including location, use, distance, and terrain on interactive websites for each management area (USDA BNF 2021d, USDA PNF 2021b).

Winter Use

Winter use in the analysis area includes backcountry skiing/snowboarding, snowmobiling (i.e., OSV use), cross-country skiing, and snowshoeing. Valley County currently grooms for OSV use on the portion of Johnson Creek Road from Wapiti Meadow Ranch to Landmark (approximately 17 miles) and the length of Warm Lake Road from about one-mile past Warm Lake Lodge to Landmark (approximately 11 miles). Valley County also grooms Burnt Log Road for OSV use (approximately 9.8 miles total: 6 miles groomed and 3.8 miles of infrequently groomed). Cabin Creek Road is currently not a groomed OSV route. Winter travel routes including OSV routes and parking areas are shown on Figure 6-4 of the SGP Recreation Specialist Report (Forest Service 2023m). Skiers also use the Warm Lake groomed OSV route for approximately one-third of a mile to the YWAM Idaho Warm Lake Camp (Forest Service 2023r). Neither the BNF nor PNF require permits for backcountry skiing. Snowmobiling also takes place throughout the analysis area on both groomed and ungroomed routes. Additional details on snowmobile areas and routes can be found on the BNF and PNF websites (USDA BNF 2021e, USDA PNF 2021c). As noted in **Section 3.2.4.7**, there are 18 avalanche paths potentially affecting 1.6 miles of the road along the proposed Cabin Creek OSV route (DAC 2021; **Figure 3.2-6**). The relatively high snowfall along this route suggests that most of these paths are expected to produce D2-sized avalanches on an annual basis with potential D3 avalanches with a 10- to 30-year return period. This area is outside of current avalanche forecasting areas (Forest Service, Todd Leeds, personal communication).

3.19.4.5 Special Recreation Use Permits

The IOGLB issues state licenses to commercial outfitters and guides in the state of Idaho and is responsible for the administration of the Idaho Outfitters and Guides Act (Title 35, Chapter 21, Idaho Code), while the Forest Service authorizes outfitter/guide services and facilities on NFS lands.

There are 24 outfitters and guides permitted in GMU 24, 14 permitted in GMU 25, and 37 permitted in GMU 26 (IOGLB 2020a-c). GMU 26 is primarily in the FCRNRW and includes a portion of PNF MA 13. Only BNF MA 17 is in GMU 24. BNF MAs 19, 20, and 21, and most of PNF MA 13 are in GMU 25.

In all three GMUs, activities permitted by the IOGLB, which vary by outfitter, include trail rides/pack trips, mountain bike touring, backpacking, photo trips, day hikes, snowmobiling, and fishing. In GMUs 24 and 25, permitted activities also include llama packing and skiing/snowshoeing. The IOGLB also has permitted kayaking and float boating in GMUs 24 and 26. In GMU 24, wagon/sleigh rides, zip line tours, mountaineering, and power boating also are permitted.

In the three GMUs, several of the permitted outfitters also are permitted for hunting (five in GMU 24, nine in GMU 25, and 26 in GMU 26). In all three GMUs, outfitters are permitted to hunt bear, cougar, predators, wolf, elk, deer, moose, and forest grouse (species vary by outfitter).

In 2019, there were several recreation-related special use permits issued by the Forest Service for the PNF and BNF portions of the analysis area. Appendix A of the SGP Recreation Specialist Report (Forest Service 2023m) describes each of the current recreation-related special use permits that have been issued within the analysis area.

3.20 Scenic Resources

3.20.1 Introduction

Scenic resources are the visible physical features on the landscape (e.g., land, water, vegetation, structures, and other features). Scenic resources in the area of analysis (**Figure 3.20-1**) are characterized as a continuous mountain landscape broken occasionally by wide valleys with flat or hilly floors. The FCRNRW is renowned for its rugged and wild character. Its designation as a wilderness makes it, at a minimum, regionally significant.

3.20.2 Scenic Resources Area of Analysis

The analysis area for scenic resources is not a definitive boundary as it includes all areas where the SGP components would potentially be visible to the public. The analysis area generally extends north of and along the East Fork Road segment and the Stibnite Road segment of the McCall-Stibnite Road (CR 50-412), to the east into portions of the FCRNRW, south of and along Warm Lake Road (CR 10-579), and west of Lake Cascade, and represents a 25-mile viewshed analysis area (**Figure 3.20-1**).

3.20.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and regulations apply to the Proposed Action and Action Alternative. The following is a list of additional laws, regulations, policies, and plans at the federal, state, or local level pertaining to scenic resources. Additional descriptions of these regulations can be found in the SGP Scenic Resources Specialist Report (Forest Service 2023n).

Forest Service: The Payette Forest Plan and Boise Forest Plan (Forest Service 2003a, 2010a) each state that the desired condition for the scenic environment is that "scenic quality is maintained or enhanced in areas of high scenic value and other highly used recreation areas."

Bureau of Reclamation: The BOR Lake Cascade Resource Management Plan (BOR 2002) includes Goals and Objectives that pertain to Scenic Resources on land that it manages.

National Environmental Policy Act: Scenic quality is a measure of the visual appeal of a parcel of land. Section 101(b) of the NEPA states that the Federal Government should use all practical means to assure aesthetically pleasing surroundings be retained for all Americans (42 USC 4331.101[b][2]).

Valley County Comprehension Plan: The purpose of the Valley County Comprehensive Plan is to promote the health, safety, and general welfare of the people of the State of Idaho, in part, to ensure that "the development on land is commensurate with the physical characteristics of the land" (Valley County 2018a). The plan contains land use goals related to scenic resources and the rural character of the landscape.

Payette River National Scenic Byway: The Payette River Scenic Byway (PRSB) Corridor Management Plan notes that the PRSB Advisory Council does not have regulatory authority and relies on Valley County and the communities along the corridor to preserve the scenic qualities of the PRSB (PRSB Advisory Council 2013). The plan does not specify guidance with regard to scenic resource management along the corridor; however, the PRSB Advisory Council "will collectively review all zoning ordinance proposals to determine if the ordinances support principal goals by preserving historic or culturally valuable assets and viewsheds, [and] limit undesired land uses within close proximity of the byway…"

City of Cascade: The City of Cascade Comprehensive Plan (City of Cascade 2017) recognizes Natural Resources as a management element that includes scenic resources as part of Goal 4.1, which states, "Protect wildlife habitat, the environmental and hydrologic functions of lands and streams, and scenic vistas." The City of Cascade Comprehensive Plan also identifies SH 55 (PRSB) as a scenic corridor with qualities that attract visitors. It also identifies mountain ranges surrounding Cascade and the riparian corridor along Payette River as critical areas for scenic resources.

City of Donnelly: The City of Donnelly Comprehensive Plan (City of Donnelly 2014) identifies goals and policies related to Community Design. One of the city's goals is to, "Preserve and enhance the visual appearance and unique character of the City," and its second objective is to "Preserve and enhance the landscape views around the City." Policy 3 states that, "Utilities shall be installed underground whenever possible to minimize visual impacts." Goals and policies related to Public Services and Utilities includes the following objective, "Provide adequate public utility infrastructure to meet the needs of current and future residents while minimizing its visual impact."

Forest Service Visual Management System: This system has been used since the mid-1970s to determine effects to scenery from proposed activities and is the basis of this analysis. The BNF and PNF lands have been inventoried in accordance with the Visual Management System (VMS) (Forest Service 1974b).

Combining these attributes, national forests that utilize the VMS assign a VQO to be used during project planning and implementation for the purpose of maintaining or enhancing the scenic qualities of the forest's landscapes. VQOs are measurable standards or objectives that guide management of these lands and represent different degrees of acceptable alterations to national forest landscapes (Forest Service 1974b). The VQO categories include Preservation, Retention, Partial Retention, Modification, and Maximum modification.

In general, VQOs for highly scenic and/or highly sensitive and visible landscapes require the retention of a natural appearance yet would allow for activities with a low level of visual change. A greater degree of landscape alteration is acceptable in landscapes that are inherently less scenic, seen from a greater distance, or seen from less sensitive locations.

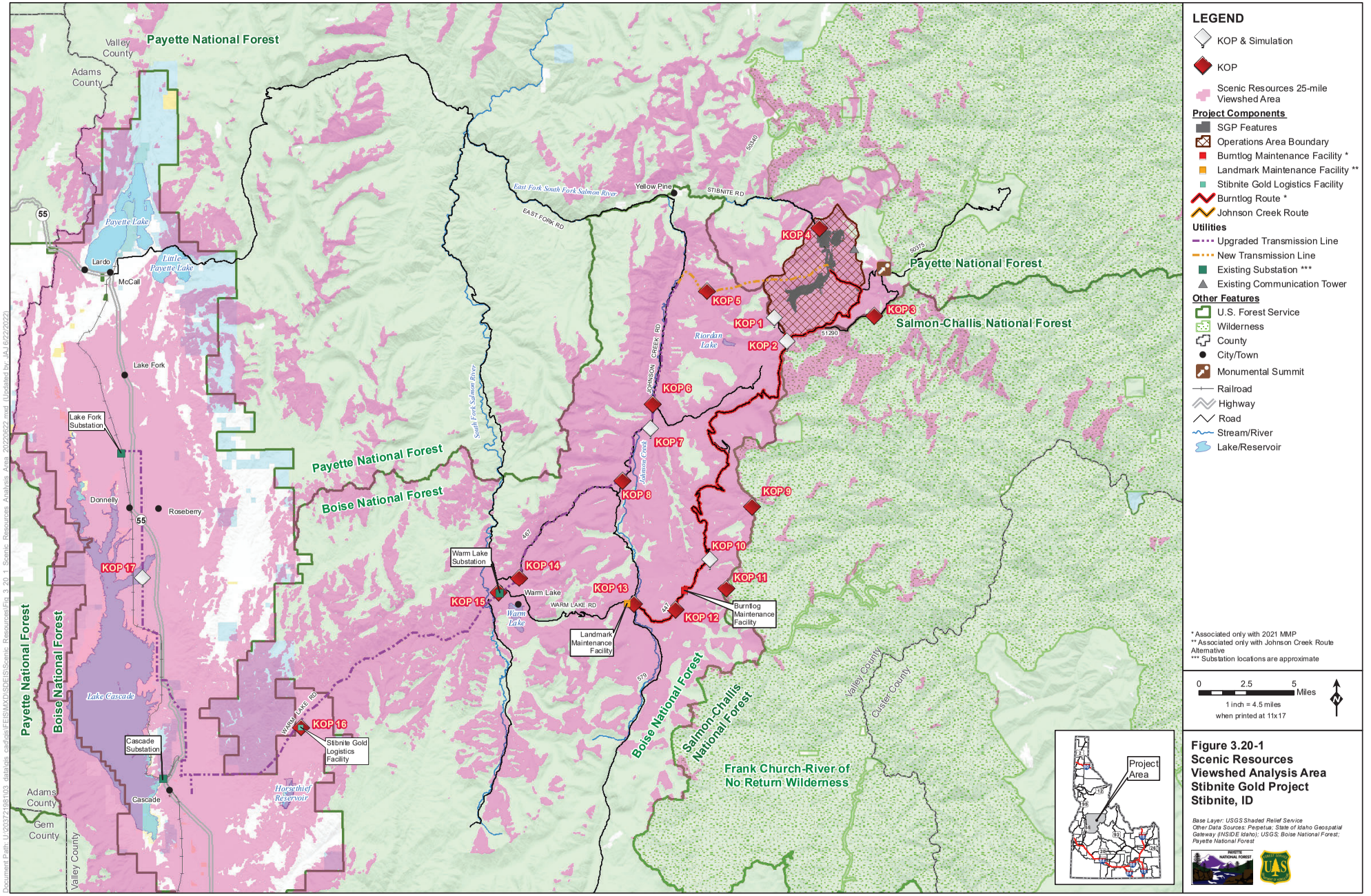


Figure 3.20-1
Scenic Resources Viewshed Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); USGS; Boise National Forest; Payette National Forest

Document Path: U:\20372198\103 data\gis data\gis\FEIS\MXD\SDEIS\Scenic Resources\Fig 3.20-1 Scenic Resources Analysis Area 20220622.mxd (Updated by: JAJ 6/22/2022)

3.20.4 Affected Environment

Of the VQOs assigned to the analysis area in the Payette Forest Plan and Boise Forest Plan, approximately 42,725 acres are identified as *Preservation*, 84,073 acres are identified as *Retention*, 178,118 acres are identified as *Partial Retention*, 19,709 acres are identified as *Modification,* and 1,272 acres are identified as *Maximum Modification*. The remaining 218,945 acres within the analysis area are either private, state, or other (non-Forest Service) federal land that do not have assigned VQOs. **Figure 3.20-2** illustrates these locations in the SGP vicinity.

Data sources used to select representative Key Observation Points (KOPs) (**Figure 3.20-1**) included: viewshed analysis results, existing land use plans, recreation data, aerial photography, and Forest Plan VQO data. These data were reviewed in conjunction with the proposed SGP components to provide a comprehensive evaluation of the varied components and their potential impacts to sensitive viewer locations within the analysis area.

3.20.4.1 Characteristic Landscape

Visual sensitivity pertains to the degree of concern for changes to the characteristic landscape. Sensitive use areas were identified based on the following criteria: use duration, use volume, Forest Plan sensitivity level, and scenic or special designation. Existing conditions of sensitive use areas are summarized in the text below. All areas identified as sensitive use areas in this analysis have an overall sensitivity of high or moderate.

Travel Routes - There are 27 roads, including highways, forest roads, and local roads, in the analysis area identified as sensitive use areas. These roads provide access for forest visitors to the two national forests, the FCRNRW, the SGP, recreation sites that include Warm Lake and the Stolle Cabin, and numerous campgrounds and trailheads, as well as serve as travel routes for the residents of the village of Yellow Pine. Most roads are seasonal and closed during winter months due to snow. However, Stibnite Road (CR 50-412), Warm Lake Road (CR 10-579), SFSR Road (FR 474/50674), and the northern portion of Johnson Creek Road (CR 10-413) are accessible to vehicles year-round. Views experienced from travel routes are transient in nature and include "superior" (views from above), "inferior" (views from below), and enclosed views; although, expanded views exist in areas where adjacent vegetation is sparse and/or low growing. Six KOPs (4, 10, 13, 14, 15, and 16) are identified along travel routes (**Figure 3.20-1**).

Waterbodies - There are six rivers and creeks and two lakes (Warm Lake and Lake Cascade) in the analysis area identified as sensitive use areas that are used by residents and forest visitors for motorized boating, rafting, swimming, wildlife viewing, and fishing. Near the SGP, the East Fork SFSR is accessible for dispersed recreation. Johnson Creek is accessible for water-based recreation at numerous campgrounds and dispersed campsites throughout the analysis area. Summit Lake, Caton Lake, Rainbow Lake, Curtis Lake, Black Lake, and Riordan Lake are other major bodies of water that are accessible for dispersed recreation. Johnson Creek and Burntlog Creek are eligible for designation as WSRs (recreational and wild, respectively), and the South Fork of the Salmon River is suitable for designation as a recreational WSR. Warm Lake, Horsethief Reservoir, Lake Cascade, and the North Fork of the Payette River are also located in the analysis area and offer several recreation amenities, including campgrounds and boat launching sites. Views experienced from waterbodies include transient (from watercraft) or

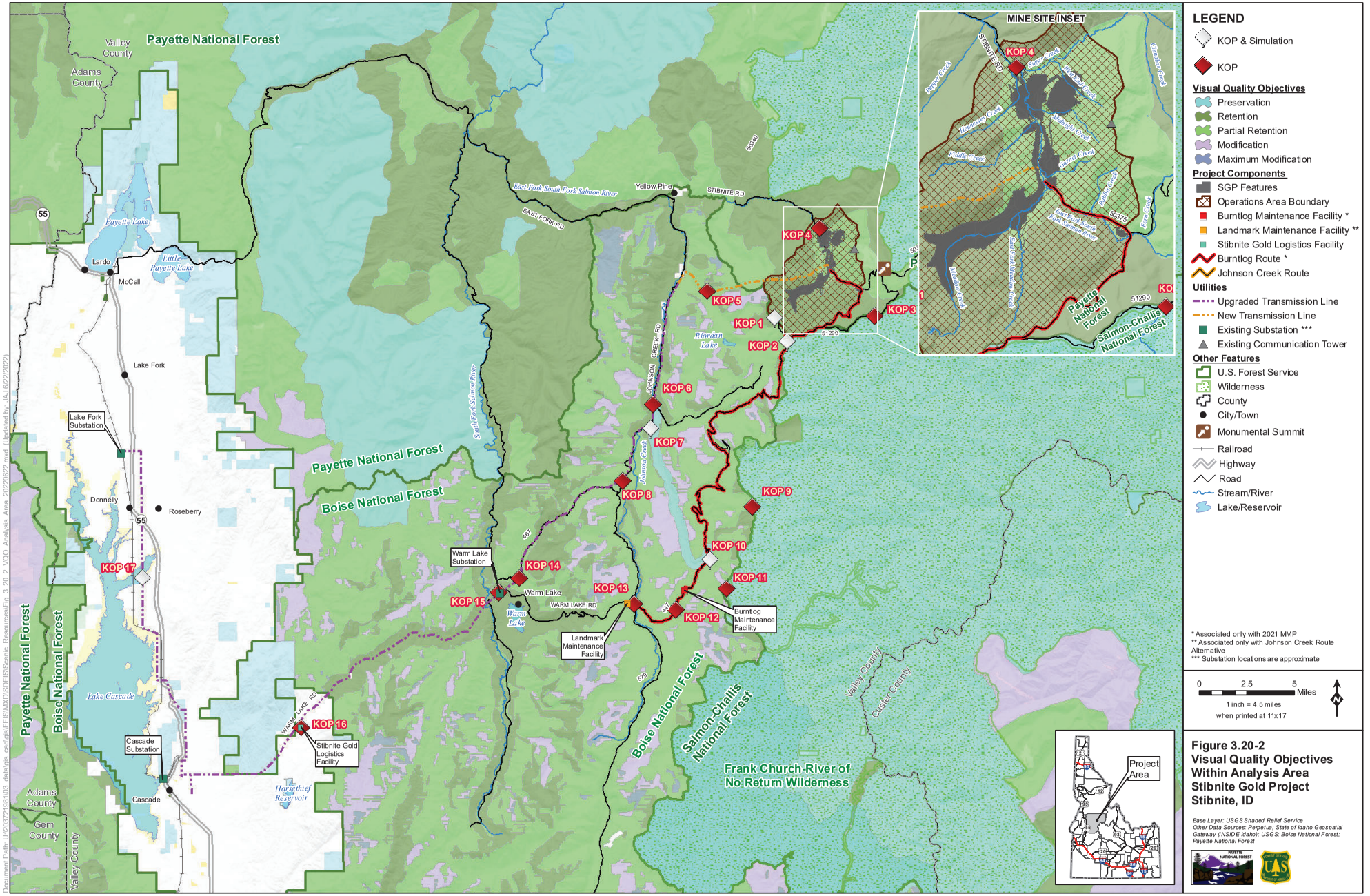
stationary (from the shore) and are typically inferior and enclosed to partially enclosed, meaning expansive views of adjacent scenery are not present. No KOPs were identified on or along waterbodies.

Campgrounds and Lodging - There are 16 campgrounds in the analysis area: 11 are NFS campgrounds and the remaining five campgrounds and lodging facilities are non-Forest Service facilities. Many of the campgrounds provide access to hiking trails and rivers or streams for fishing and recreational activities. There also are three dispersed campsites in the analysis area. Views experienced from campgrounds and other lodging areas are stationary and typically inferior and enclosed or partially enclosed. One KOP is identified at a campground (KOP 8) and two at dispersed camp sites (KOPs 6 and 12).

Trails and Trailheads - There are numerous trails and trailheads throughout the analysis area, although notably fewer in the northern portion. The Idaho Centennial Trail is a 900-mile state-designated trail that includes motorized and non-motorized trails on the PNF and BNF. Lookout Mountain Trailhead is a supply drop location for Idaho Centennial Trail and wilderness users. Trails traverse through the forests and cross through the analysis area providing access to the FCRNRW, lakes, rivers, lookouts, campgrounds, and other various features and provide opportunities for viewing wildlife and scenery, including the FCRNRW. Views experienced from trails are transient or stationary and include superior, inferior, enclosed, and panoramic views. Four KOPs are identified along Forest Service trails (KOPs 2, 3, 7, and 9) and two at trailheads (KOPs 5 and 11).

Other Recreational Uses - Other recreational use sites in the analysis area include interpretive sites, viewpoints, lookouts, swimming sites, picnic areas, and wildlife viewpoints. The Stibnite Interpretive site is located at the old Stibnite home foundations near the SGP and includes informational signage describing the past history of the town of Stibnite and mining in the area. There also is an interpretive site at Landmark that describes the historic ranger station established in 1924. Monumental Summit is a viewpoint offering 360-degree views of the forest and neighboring FCRNRW area. There are two lookouts: Meadow Creek Lookout and Thunderbolt Mountain Lookout. Warm Lake hosts the Billy Rice Swimming Site, and the Warm Lake Picnic Point is on a small peninsula, which offers expansive views of Warm Lake and hosts a small organization's camp. South of Warm Lake, along SFSR Road (FR 50474), there is a point of interest for visitors to view wild salmon. Views experienced from other recreational areas are transient or stationary and include superior, inferior, enclosed, and panoramic views. One KOP is identified at Meadow Creek Lookout (KOP 1).

Residences - Residences in the analysis area were inventoried as high sensitivity, due to duration of views and concern for changes in the landscape. The village of Yellow Pine is located approximately 14 miles west of the proposed SGP at the junction of Stibnite Road (CR 50-412) and Johnson Creek Road (CR 10-413). This small community, which had a year-round population of 32 in 2018, is the nearest residential area to the SGP (Census 2018). Dispersed rural residences are generally located along Johnson Creek Road (CR 10-413) on private lands adjacent to the creek. These include Wapiti Meadows, Cox Ranch, and Bryant Ranch. The largest concentration of residential viewers on NFS lands within the analysis area is Warm Lake. The Warm Lake area has several seasonal residences in the Paradise Valley Summer Homes and Warm Lake Summer Homes areas. There are a few dispersed rural residences on private land off Warm Lake Highway near Scott Valley. The cities of Cascade and Donnelly are located in Long Valley near Lake Cascade and the North Fork Payette River. Several rural residences and ranches are in



LEGEND

- KOP & Simulation
- KOP

Visual Quality Objectives
- Preservation
- Retention
- Partial Retention
- Modification
- Maximum Modification

Project Components
- SGP Features
- Operations Area Boundary
- Burntlog Maintenance Facility *
- Landmark Maintenance Facility **
- Stibnite Gold Logistics Facility
- Burntlog Route *
- Johnson Creek Route

Utilities
- Upgraded Transmission Line
- New Transmission Line
- Existing Substation ***
- Existing Communication Tower

Other Features
- U.S. Forest Service
- Wilderness
- County
- City/Town
- Monumental Summit
- Railroad
- Highway
- Road
- Stream/River
- Lake/Reservoir

* Associated only with 2021 MMP
** Associated only with Johnson Creek Route Alternative
*** Substation locations are approximate

0 2.5 5 Miles
1 inch = 4.5 miles when printed at 11x17

Figure 3.20-2
Visual Quality Objectives Within Analysis Area
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); USGS; Boise National Forest; Payette National Forest

Long Valley, and Cascade serves as the primary logging and ranching center for residents. Several residences are located along Lake Cascade on private lands. Donnelly is at the upper end of Lake Cascade and provides access and support services to the lake and residents in the surrounding area. One KOP has been identified near the residences at Cascade (KOP 17).

3.20.4.2 Key Observation Points

The KOPs represent different types of sensitive use areas (roads, trails, recreation use areas, and residential areas) and areas where different SGP components could be visible. Existing conditions are assessed at each KOP and used to evaluate potential impacts from the SGP. Photographs taken from select KOPs are available in Appendix A of the SGP Scenic Resources Specialist Report (Forest Service 2023n).

KOP 1: Meadow Creek Lookout

KOP 1 represents views experienced from Meadow Creek Lookout, directed northeast. Meadow Creek Lookout is not frequently visited by the general public due to its remoteness; however, it is one of the few recreational use areas with unobstructed superior (viewed from above) views of the SGP. This location represents a moderate-sensitivity viewpoint that Forest Service staff and recreational users would see when accessing this lookout through Meadow Creek Lookout Road (FR 51290) and/or nearby Meadow Creek/Summit Trailhead and NFST 073. These areas are as level 2 sensitive use areas, which are associated with a moderate level of visual sensitivity (Forest Service 2010a).

KOP 2: Frank Church-River of No Return Wilderness – Summit Trail (NFST 088)

Summit Trail offers panoramic views of the Salmon River Mountains and wilderness area for the entire length of the trail between Snowshoe Summit up to Meadow Ridge. This KOP represents what moderate sensitivity recreation users (hikers, horseback riders) would see from a non- motorized trail at the edge of the wilderness. Similar to Meadow Creek Lookout, this area is not frequented by many visitors because of its remoteness; and is associated with a moderate level of sensitivity which is consistent for similar trails in this area. This trail crosses areas designated as roadless and existing views of the characteristic landscape are typically limited to dispersed recreation such as hiking or horseback riding.

KOP 3: Frank Church-River of No Return Wilderness – Mule Hill Trail (NFST 219)

KOP 3 at Mule Hill Trail is accessible from Meadow Creek Lookout Road (FR 51290) and provides access to the Indian Creek Trail. This viewpoint represents what high sensitivity recreation users (hikers, horseback riders) might see from a trail within the wilderness.

KOP 4: Stibnite Road (CR 50-412)

KOP 4 represents views experienced from the Stibnite Road portion of McCall-Stibnite Road (CR 50-412) directed east-southeast. Stibnite Road (CR 50-412) is a sensitivity level 1 travel route that provides access to the SGP through the village of Yellow Pine. This road also provides access to Thunder Mountain Road (FR 50375) through the proposed SGP, and this viewpoint represents typical views that travelers would see from Stibnite Road (CR 50-412). Previous disturbance from legacy mining activities is evident in the foreground, including light soil color contrasts from landform modifications.

KOP 5: Hennessey Meadow Trailhead

KOP 5 represents views from Hennessey Meadow Trailhead looking east toward the proposed transmission line corridor. Hennessey Meadow Trailhead is at the end of Horse Heaven Road (FR 416W), which is a high-clearance vehicle travel route that follows Riordan Creek. This trailhead provides access to NFST 097 which leads to Riordan Lake, a popular fishing location in the area; and NFST 233. At this location, NFST 233 traverses extremely steep terrain that is primarily accessible by experienced OHV users and may receive limited use due to this factor. This trailhead is associated with moderate sensitivity and is a typical viewpoint for motorized vehicle recreational users in the area. The past transmission line ROW corridor is evident, although structures are not present.

KOP 6: Twin Bridges Dispersed Camping Area

KOP 6 represents views from Twin Bridges dispersed camping area looking south toward the proposed upgraded transmission line. Twin Bridges dispersed camping area is between Johnson Creek and the existing transmission line corridor, with Johnson Creek Road (CR 10-413) immediately west of the existing transmission line. This dispersed camping area is associated with moderate visual sensitivity. This viewing location is representative of dispersed recreational viewers in the area, with views of the existing transmission line. Screening is limited, and the modifications associated with the existing ROW are co-dominant in the landscape due to the enclosed landscape setting. Human development is limited to existing roads and the transmission line ROW.

KOP 7: Idaho Centennial Trail at Johnson Creek Road (CR 10-413) and Burntlog Creek Trail (NFST 075)

KOP 7 represents views from the Idaho Centennial Trail (ICT) directed west toward Burnt Log Road (FR 447). The ICT follows the Burntlog Creek Trail (NFST 075) heading north to the junction of Johnson Creek Road (CR 10-413). This trail is identified as a sensitive level 1 use area and is associated with high visual sensitivity. This KOP represents a typical ICT trail user in the analysis area with views of the transmission line. Recreational viewers associated with this viewpoint currently have unobstructed views of the transmission line, primarily due to ROW vegetation clearing. Modifications near the trail are limited to existing roads and the transmission line ROW.

KOP 8: Trout Creek Campground

KOP 8 represents the view from Trout Creek Campground looking west. Trout Creek Campground is off Johnson Creek Road (CR 10-413) just southeast of the existing transmission line corridor. This campground is a sensitive level 1 use area, with developed amenities including fire pits, picnic benches, and restrooms. This viewing location is representative of campers in the analysis area that would have views of the existing transmission line corridor. The existing transmission line corridor is immediately adjacent to the campsite, and screening is limited to a few rows of trees at this site. Although the transmission line structures and conductors are visually subordinate from the campground due to vegetation screening, the existing ROW clearing is visible from many locations where understory vegetation has been thinned.

KOP 9: Boundary of the Frank Church-River of No Return Wilderness Near Pistol Lake

KOP 9 is located approximately 3 miles east of the Burntlog Route at its closest point (**Figure 3.20-1**). This KOP is located approximately 0.5 miles west of Pistol Lake on a ridgeline that forms the boundary of the FCRNRW in this area. This KOP represents what dispersed recreation users (hikers, horseback riders) might see from a location at the edge of the wilderness east of the new roadway segment for the Burntlog Route. It affords superior views across drainages and ridgelines, including a burned area of the BNF. SGP features would not be visible from Pistol Lake.

KOP 10: Burnt Log Road (FR 447)

KOP 10 represents foreground views from Burnt Log Road (FR 447) directed southwest (**Figure 3.20-1**). Burnt Log Road (FR 447) is currently a high-clearance vehicle route that provides access to Snowshoe Summit Trailhead at the edge of the FCRNRW and Burntlog Creek and ends near Chilcoot Pass. This road is a sensitivity level 2 travel route and has overall moderate visual sensitivity.

KOP 11: FCRNRW Boundary

KOP 11 is located at the Snowshoe/Summit trailhead on the western edge of the FCRNRW boundary. Due to topography and vegetation screening, it was determined that no SGP components would be visible from this location (Forest Service 2023n); therefore, it is not carried forward in the analysis.

KOP 12: Mud Lake Dispersed Camping Area

KOP 12 represents views from the Mud Lake dispersed camping area looking north-northwest (KOP 12a) and south-southeast (KOP 12b) (**Figure 3.20-1**). Burnt Log Road (FR 447) is currently a high-clearance vehicle travel route with moderate visual sensitivity that provides access to Mud Lake dispersed camping area, just 2 miles east of Landmark.

KOP 13: Warm Lake Road (CR 10-579) at Landmark Maintenance Facility

KOP 13 represents views looking north from the Warm Lake Road (CR 10-579) at the proposed Landmark Maintenance Facility location (**Figure 3.20-1**). Warm Lake Road (CR 10-579) is a paved, passenger vehicle accessible, travel route that provides access to Landmark and Warm Lake. This is a sensitivity level 1 travel route used by summer and winter recreational visitors.

KOP 14: Cabin Creek Road (FR 467)

KOP 14 represents views from Cabin Creek Road (FR 467) looking north-northeast (KOP 14a) and south-southwest (KOP 14b) toward the transmission line. Cabin Creek Road (FR 467) is north of the Warm Lake area, and cuts across the Thunderbolt Mountains, terminating at Johnson Creek Road (CR 10-413) near Trout Creek Campground. This travel route is a sensitive level 2 use area and is used frequently for OHV recreation. Recreational users have views of existing transmission line corridor vegetation clearing and pole structures.

KOP 15: South Fork Salmon River Road (FR 474) and Warm Lake Road

KOP 15 represents views from SFSR Road (FR 474) looking southwest (KOP 15a) and northeast (KOP 15b) toward the transmission line. SFSR Road (FR 474) is a sensitive level 1 travel route near the Warm

Lake recreation area. This viewpoint represents views that travelers would see from the SFSR Road (FR 474) from Rice Creek coming into Warm Lake. The existing transmission line corridor is currently visible from this KOP; views of the existing switchgear are in the foreground, unobstructed. The existing conditions around the switchgear site appear to be previously disturbed, graded, and vegetation removed or thinned. This area has been historically altered by fires, and several dead and burned trees occupy the landscape, with isolated areas of mature trees and understory vegetation.

KOP 16: Stibnite Gold Logistics Facility

KOP 16 represents views from Warm Lake Road (CR 10-579) looking northeast (KOP 16a) and southwest (KOP 16b) toward the SGLF. Warm Lake Road (CR 10-579) is a paved, passenger vehicle–accessible travel route that provides access to Warm Lake. This is a high-sensitivity travel route that provides access to Warm Lake from Cascade. This area in Scott Valley is primarily undisturbed with few structures on the landscape.

KOP 17: Lake Cascade Residence

KOP 17 represents views of residents along SH 55 near Lake Cascade looking north toward the transmission line. Residential viewers near the transmission line in Cascade are limited to a few locations near Lake Cascade and along SH 55. Views are primarily unobstructed, because the transmission line corridor is immediately adjacent to these residences or visible in the foreground. Existing modifications in this rural setting are associated with neighboring residences, agricultural or ranching facilities, distribution lines, and local roads.

3.21 Social and Economic Conditions

3.21.1 Introduction

This section includes a discussion of existing (baseline) social and economic conditions relevant to the SGP, including population and housing, income and labor, social conditions, public services, recreation use, and government revenues.

3.21.2 Social and Economic Conditions Resources Area of Analysis

The direct and indirect effects analysis area for social and economic conditions consists of Valley County and Adams County (and associated communities), which have the potential to be directly economically affected by the SGP (**Figure 3.21-1**). There are no Native American reservations directly within the socioeconomic analysis area but social and economic conditions for tribal land use within the analysis area are discussed in **Section 3.21.4.5**. Valley County, which contains the entire SGP area, and the associated communities of Cascade, Donnelly, McCall, and the village of Yellow Pine, has the potential to be economically affected by the SGP. Adams County and the associated towns of New Meadows, Meadow Valley, Council, and Tamarack also are included in the analysis area because of their proximity to the SGP.

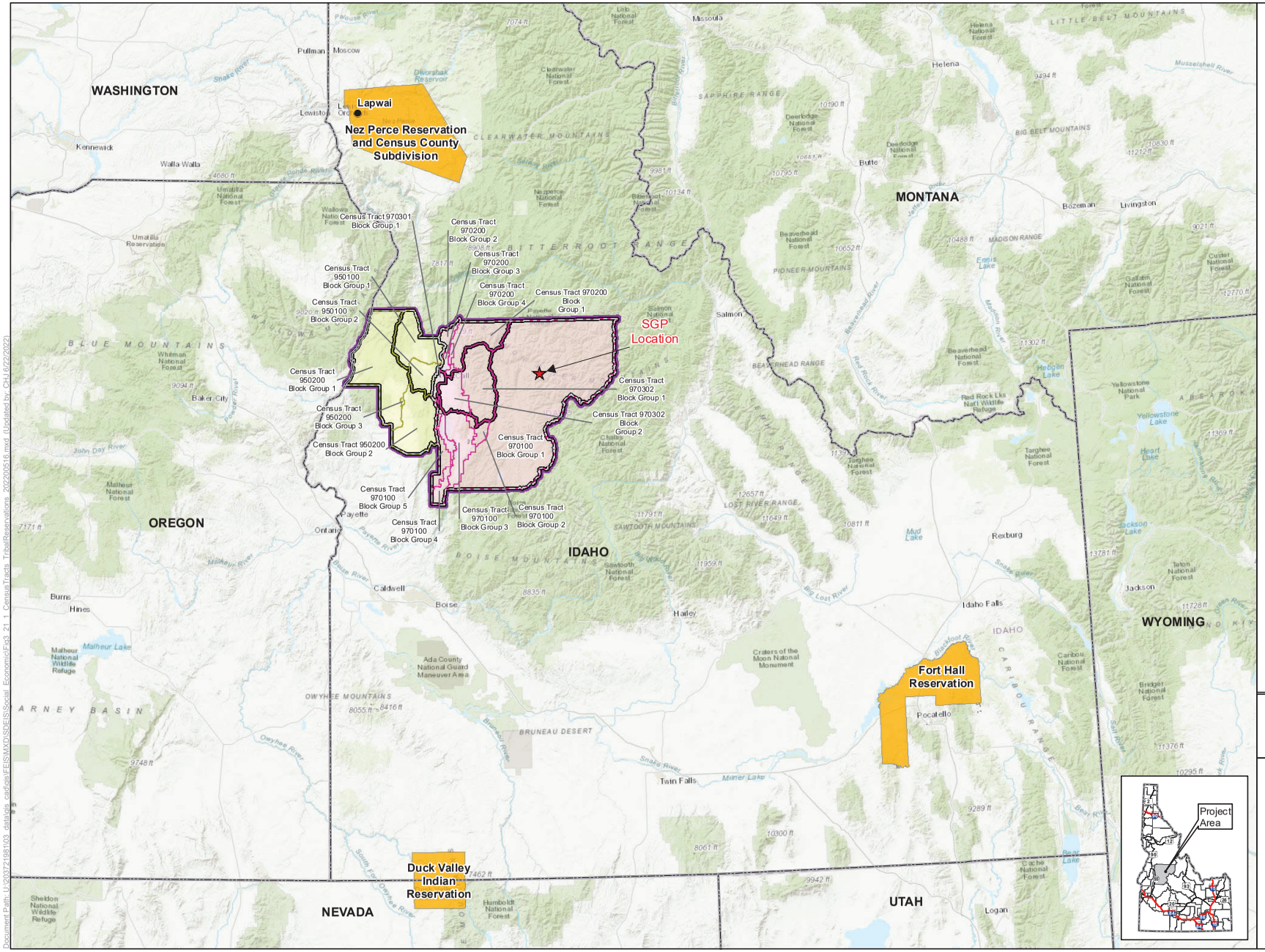


Figure 3-21-1
Census Tracts and Tribal Reservations in Relation to the Analysis Area
Stibnite Gold Project
Stibnite, ID

3.21.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and implementing regulations apply to the Proposed Action and Alternatives. The following is a list of laws, regulations, policies, and plans at the federal, state, or local level pertaining to social and economic conditions. Additional descriptions of these regulations can be found in the SGP Social and Economic Conditions Specialist Report (Forest Service 2023o).

Land and Resource Management Plan: The Payette Forest Plan (Forest Service 2003a) and the Boise Forest Plan (Forest Service 2010a) regulate the use of NFS lands for the benefit of the nation. The Payette Forest Plan and the Boise Forest Plan both have several goals and objectives to provide direction on procedural approaches and outcomes for management of NFS social and economic resources and conditions. The goals do not prescribe any specific guidance applicable for assessing socioeconomic impacts, and the specific goals and objectives for social and economic conditions are described further in the SGP Social and Economic Conditions Specialist Report (Forest Service 2023o).

General Mining Act of 1872: The Mining Law (30 USC, Chapter 2) and subsequent amendments govern the right to locate, develop, and extract mineral deposits on federal lands open to mineral entry. The Forest Service regulates locatable mineral operations on the surface of the NFS lands under regulations codified at 36 CFR 228A.

Mining and Mineral Policy Act of 1970: Through the Mining and Mineral Policy Act of 1970, Congress has stated that it is the continuing policy of the federal government, in the national interest, to foster and encourage private enterprise in the development of economically sound and stable domestic mining, minerals, and metal and mineral reclamation industries; and the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help ensure satisfaction of industrial, security, and environmental needs. 30 U.S.C. 21a.

Forest Service Manual 1970 and Forest Service Handbook 1909.17: The FSM 1970 directs how economic and social analyses should be conducted to aid Forest Service decision making. Forest Service guidelines for socioeconomic analyses are outlined in FSH 1909.17, “Economic and Social Analysis Handbook”, which provides guidelines to be used to evaluate socioeconomic impacts that may result from policy, program, plan, or project decisions on NFS lands.

Valley County and Adams County Comprehensive Plans: Both the Valley County and Adams County comprehensive plans reaffirm the importance of natural resources to their communities’ economies (Adams County 2006; Valley County 2018a). The Valley County Comprehensive Plan includes goals and objectives pertinent to the SGP to ensure mining remains a viable element in Valley County’s economy; to ensure new industrial activities consider long-term impacts and benefits on the local economy and environment; and, to maintain the role of the timber industry, tourism, outdoor recreation, mining, and agriculture in the local economy. Relevant goals under the Adams County Comprehensive Plan for the SGP include to provide an economically viable environment that builds and maintains a diverse base of business.

3.21.4 Affected Environment

The following section provides a summary of historic and current population and housing data, income and labor force trends, and government revenues based on the most recent data year available, as well as describes social conditions and public services in the analysis area. A complete discussion of social and economic conditions in the analysis area is provide in the SGP Social and Economic Conditions Specialist Report (Forest Service 2023o). Due to the uncertainties related to the ongoing changes in regional economic and social conditions, the data below may be inexact as it is based on prior economic conditions data and trends.

There is limited available information on use of the analysis area both by recreational visitors and Native American tribal members. As a result, the type, frequency, magnitude, and location of these users' activities are largely unknown. Although adequate for the purposes of the socioeconomic impact analysis, limited fiscal information on Adams County's government services and revenues was available. Neither Perpetua nor this socioeconomic analysis has been able to quantify direct revenue transfers to Valley and Adams counties resulting from the SGP's expected future mineral license fee payments to the state of Idaho.

At the time of this reporting, some 2020 census data remains unavailable due to delays associated with the COVID-19 response; therefore, the analysis relies on the previously complete census datasets prior to 2020.

3.21.4.1 Population

Valley and Adams counties are both rural areas located in central Idaho with low population densities of 3.2 people per square mile for both counties (Census 2020). Valley County is Idaho's fifth largest county by area (3,664 square miles) but is the 27th most populated (year-round) of the state's 44 counties. Adams County is the 22nd largest county in Idaho by area (1,363 square miles) and one of the state's least populated (year-round) counties (39th out of 44) (Census 2020). Valley County experiences an influx of seasonal residents, recreationists, and vacationers during both the summer and winter months which may not be accounted for in the available data (Valley County 2018a).

In 2020, Valley County had a total population of 11,746 with a median age of 49, and Adams County had a total population of 4,379 with a median age of 54. By comparison, Idaho's corresponding total population was 1,839,106 with a median age of 36. Compared to the statewide population, both counties have a lower percentage of residents under 18 years old and a greater percentage of residents over 18 years old.

Table 3.21-1 shows the populations of both counties and Idaho in 2010 and 2020. Age characteristics of both counties and Idaho in 2020 are provided in the SGP Social and Economic Conditions Specialist Report (Forest Service 2023o). Idaho was the second-fastest growing state, by population between 2010 and 2020.

The communities closest to the Operations Area Boundary include Council, New Meadows, McCall, Donnelly, Cascade, and Yellow Pine. The largest of these communities are McCall (2019 population: 3,347) and Council (2019 population: 747). Cascade had a population of 745, and New Meadows had a

population of 430 in 2019 (Census 2019). Yellow Pine and Donnelly are very small communities with only 246 and 72 residents in 2019, respectively (Census 2019). Altogether, approximately half of Valley and Adams counties' total year-round populations reside in these six communities.

Table 3.21-1 Valley County, Adams County, and Idaho Population Demographics

Year	Valley County	Adams County	Idaho
Population (2020)	11,746	4,379	1,839,106
Population (2010)	9,854	3,978	1,567,657
Percent of Population Increase (2010 to 2020)	19.2%	10.1%	17.3%

Source: Census 2010, 2020

3.21.4.2 Housing

During the 1990s and early 2000s, Valley County experienced considerable growth in new housing units. However, since the 2008 recession, new housing construction has been relatively limited. In 2010, Valley County had an estimated total of 11,789 housing units, which increased by only 439 additional housing units by 2018 (3.7 percent increase). Similarly, from 2010 to 2018, Adams County added only 47 additional housing units (1.8 percent increase) (Census 2010, 2020).

The majority of Valley County's housing inventory consists of vacation/seasonal second homes for out-of-county residents (Census 2010, 2018). Of Valley County's 12,228 housing units in 2018, nearly 72 percent (8,767 units) were occasionally vacant. A total of 8,423 vacant units were reported for seasonal, recreational, or occasional use (i.e., generally second homes) with 225 non-seasonal vacant units for sale, rent, or otherwise vacant (Census 2018). Adams County reports a much lower vacancy rate of 38 percent; however, like Valley County, most vacant units are reported for seasonal, recreational, or occasional use (897 units), with 96 units available for sale, rent, or otherwise vacant.

Residential communities within the analysis area are well-established and stable. Most residents own their homes, with approximately 26 percent and 33 percent having lived in their current place of residence for 20 years or more in Valley and Adams counties, respectively (Census 2018).

The data suggest much of the housing formerly available to permanent residents has been sold to second home buyers, increasing the number of occasional housing units and decreasing the availability of housing to local residents (Highland Economics 2018). Census data on housing prices in Valley and Adams counties do not show an increase in sale price resulting from a relatively low availability of housing, as median owner-occupied housing prices for both counties have fluctuated but generally not risen since 2010 (Census 2010, 2018; Highland Economics 2018), as shown in **Table 3.21-2**. However, more recent 2021 real estate data for Valley and Adams counties shows a 41 percent increase in median home prices over a twelve-month period. Conversely, median rental rates increased in Valley County by 4.5 percent ($727 in 2010 to $760 in 2018) and in Adams County by 22.8 percent ($504 in 2010 to $619 in 2018; Census 2010, 2018). Between 2010 and 2018, the percentage of Valley County households paying more than 30 percent of their household income on rent grew from 33.5 percent to 59.1 percent (Census 2010, 2018b). This increase indicates that the local rental market is becoming less affordable. However, the percentage of households paying more than 30 percent of their household income on rent

decreased from approximately 50 percent to 39.9 percent in Adams County indicating that its local rental market has become slightly more affordable (Census 2010, 2018b).

Table 3.21-2 Valley County, Adams County, and Idaho Years of Living in the Same House (2018)

Housing Data	Valley County	Adams County	Idaho
Median value of owner-occupied housing units (2010)	$287,100	$205,100	$172,700
Median value of owner-occupied housing units (2018)	$283,000	$173,100	$192,300
Percent change of median value of owner-occupied housing units	-1.4%	-15.1%	11.3%
Median rental rates of renter-occupied housing units (2010)	$727	$504	$689
Median rental rates of renter-occupied housing units (2018)	$760	$619	$825
Percent change of median rental rates of renter-occupied housing units	4.5%	22.8%	19.7%

Source: Census 2010, 2018

Development of a City of McCall Housing Strategy (City of McCall 2018a) led to the McCall Area Local Housing Action Plan (City of McCall 2022) to address housing needs with regard to an estimated need for 730 additional units. The plan also included measures to reconcile affordability of new housing compared to current market prices.

3.21.4.3 Income and Labor

Valley County's economy is relatively strong, and median household and per capita incomes in Valley County were slightly higher than the statewide averages, as shown in **Table 3.21-3**. The percentage of people not in the labor force in Valley County was also higher than the statewide average. Adams County has a comparatively weaker economy than neighboring Valley County, and median household and per capita incomes were lower than the statewide average, while its unemployment rate was nearly twice the statewide rate (**Table 3.21-3**).

The Idaho Department of Labor collects data on current employment by industry in each county and projects employment growth by economic region over a 10-year period (2016-2026). Both Valley and Adams counties are identified by the Idaho Department of Labor as part of the Southwestern Region, and future employment growth in the region's professional and business services (e.g., trade, utilities, and transportation), as well as educational and health services sectors, are expected to substantially increase by 2026. No employment impacts from other new major mine operations in the region's mining and manufacturing sector over the 10-year period was forecasted (Idaho Department of Labor 2019).

Table 3.21-3 Valley County, Adams County, and Idaho Income and Employment

Income Parameter	Valley County	Adams County	Idaho
Median Household Income (2018)	$55,299	$45,318	$53,089
Per Capita Income (2018)	$30,838	$25,143	$26,772
Percentage of People Below Poverty Level (2018)	10.0%	11.4%	13.8%
Percentage of Population 16 Years and Over – Not in Labor Force (2018)[1]	50.5%	49.6%	37.6%
Percentage of Population 16 Years and Over – Unemployed (2019)[1]	4.2%	6.0%	2.9%

Source: Census 2018; Idaho Department of Labor 2020a, 2021

[1] The U.S. Census Bureau (Census) American Community Survey provides the most recent 2018 data for the population not in the labor force. The Idaho Department of Labor provides total unemployment for 2019; however, the Department does not provide data for the percentage of the population not in the labor force.

Valley County was greatly affected by the 2008 recession, but in recent years its economy has subsequently recovered. Historically, Valley County's economy was dependent on timber extraction, but the county's last major mill closed in 2001, and the resulting loss of 70 jobs has continued to impact the area (IDEQ 2019d). Today, tourism is a primary driver of the Valley County economy. Currently, Valley County's highest paying jobs are in mining followed by information services, government, and education/health service sectors, while the lowest paying jobs include leisure and hospitality and other services (Idaho Department of Labor 2020b).

Adams County's economy has recovered more slowly since the 2008 recession but has benefited from an increase in retirees relocating to the area. In 2018 the government sector jobs accounted for the largest share (31 percent) of Adams County employment. Unlike Valley County, Adams County remains more dependent on natural resources, including farming, ranching, and the timber industry (Idaho Department of Labor 2020a, 2020b). There are currently no active metal mines operating in Adams County (Idaho Department of Labor 2020b). The information sector provides Adams County's highest paying jobs, while the tourism-industry (i.e., leisure and hospitality sector) has the lowest paying jobs (Idaho Department of Labor 2020a).

Over three quarters of Valley County workers commute less than 20 minutes to work. Adams County residents generally have much longer average commutes than Valley County or the state, with approximately 18 percent of Adams County workers commuting more than 45 minutes to work (nearly twice the statewide rate).

The Forest Service supports local economies within the analysis area through recreation, timber, energy, minerals, and livestock grazing, and counties with national forests receive funds to support schools, road maintenance, and stewardship projects. The Forest Service also contributes through its construction and maintenance of infrastructure, environmental restoration, and forest health management activities.

In 2016, Forest Service's management and stewardship activities for the PNF supported approximately 2,010 local jobs and $73.2 million in local labor income (Forest Service 2016e). The agency's activities

for the BNF supported approximately 2,580 local jobs and $113.0 million in local labor income in 2016 (Forest Service 2016f).

3.21.4.4 Social Conditions

The central Idaho region provides residents and visitors a natural and rural setting with a remote character, outdoor recreation opportunities, natural beauty, and scenic quality of public lands valued by many area residents. In addition, many of these central Idaho communities have mixed cash-subsistence economies, providing both wage-based employment and subsistence lifestyle opportunities, which contribute to residents' quality of life and "sense of place" – an unquantifiable value attracting people to specific locations, generates a community identity, and contributes to the overall quality of life (Williams 2014). Some of the cultural attributes of this traditional value structure include appreciation of open space and rural living, access to undeveloped and scenic land for recreational uses (e.g., hunting and fishing), and maintenance of traditional rural and public lands as well as natural landscapes (AECOM 2018).

Valley County has a history of mining dating back over 100 years since the Thunder Mountain gold rush in the early 1900s. See the SGP Heritage Resources Specialist Report (Forest Service 2023l) for a detailed discussion of the Stibnite-Yellow Pine Mining District history.

Both Valley and Adams counties include large areas of federally administered lands and surrounding areas of private lands, which are prized for their remoteness and natural beauty. In recent years, both counties have attracted new residents including recreationists and retirees looking for small towns, natural beauty, and wide-open areas and landscapes.

3.21.4.5 Native American Tribes

Traditional Native American land use occurs throughout the analysis area. The regional tribes include the Nez Perce Tribe, the Shoshone-Bannock Tribes, and the Shoshone-Paiute Tribes. The socioeconomic conditions of each of these tribes are discussed below. **Figure 3.21-1** shows the location of these tribe's primary communities in relation to the analysis area; however, significant populations of tribal members also live outside those communities elsewhere within the region that also could be affected by the SGP.

Nez Perce Tribe

The Nez Perce Reservation encompasses portions of Nez Perce, Clearwater, Lewis, and Idaho counties in Idaho. Nez Perce Census County Division (CCD) is a Census recognized subdivision within the Reservation that includes the community of Lapwai, which is the seat of the Nez Perce Tribal government and has the highest proportion of tribal members as residents (**Figure 3.21-1**). The Tribal headquarters, school, and casino also are located in the Nez Perce CCD. The Nez Perce CCD was selected to represent the population of the Nez Perce Tribe for the social and economic conditions analysis. The Nez Perce Tribe's largest economic sector is educational and health care services, which employs 25 percent of the local workforce (Census 2018). Public administration employs 13 percent of the local workforce, while its natural resources sector (e.g., agriculture, forestry, fishing, hunting, and mining) and recreation and service sector (e.g., arts, entertainment, recreation, accommodation, and food services) each provide around 11 percent and 8 percent of residents' jobs, respectively (Census 2018). Important tribal enterprises include its fisheries restoration program, fish hatchery operations, and casino. Other tribal

enterprises include a convenience store, recreational vehicle park, and forestry products company (Nez Perce Tribe 2018a).

Shoshone-Bannock Tribes of the Fort Hall Reservation

The Fort Hall Reservation is in southeast Idaho (**Figure 3.21-1**). Fort Hall Reservation's largest source of employment is the recreation and service sector (e.g., arts, entertainment, recreation, accommodation, and food services), which employs 21 percent of the local workforce (Census 2018). The reservation's education, health care, and public administration sectors provide jobs for another 16 percent of the local workforce (Census 2018). The Tribe also operates a casino, hotel, wildlife and fisheries restoration programs, and the Famous Potatoes farming businesses.

Shoshone-Paiute Tribes of the Duck Valley Reservation

The Duck Valley Reservation is located in southern Idaho/northern Nevada (**Figure 3.21-1**). The Duck Valley Reservation's largest economic sectors are public administration, which employs 41 percent of the local workforce, and educational and health care services, which provides jobs for another 32 percent of the workforce (Census 2018). The Tribe manages three trout fisheries, several camping areas, a solid waste transfer station, and a recycling center.

3.21.4.6 Public Services

Valley and Adams counties, along with their municipalities, provide police, fire, utilities, schools, and libraries for residents and workers. Because new residents relocating to the region for work at the SGP could result in population growth that would generate greater demand for public services in the local area, the following sections focus on the communities within the analysis area where any SGP-related population growth would likely occur.

Police

Police services are provided by the Valley County Sheriff's Department, the Adams County Sheriff's Department, the Idaho State Police, and the McCall City Police. The Valley County Sheriff's Department patrols the unincorporated portions of Valley County in the analysis area and the communities of Donnelly and Cascade. The Adams County Sheriff's Department provides police services for New Meadows and Council. McCall has its own local police department, which cooperates with the Valley County Sheriff's Department, the Idaho State Police, and other agencies including the Forest Service and the Idaho Department of Fish and Game. Reported crime in Valley County decreased slightly between 2014 (283 reported incidents) and 2018 (279 reported incidents), which represented a decrease in crime by 1.4 percent over the five-year period (Idaho State Police 2018). During that same period, reported crime in Adams County increased from 113 to 232 reported incidents, which represented a 51 percent increase over the five-year period (Idaho State Police 2018). In both counties, most of these offenses consisted of drug/narcotic violations (Idaho State Police 2018).

Forest Service Uniformed Law Enforcement Officers and Forest Protection Officers provide year-round enforcement of federal laws governing the National Forests. In addition, the Forest Service contracts with the Valley County Sheriff's Department to patrol National Forest areas from May through September.

The BOR also contracts Valley County to patrol their lands, campgrounds, and waterways over the same summer period.

Fire Protection

There are four major structural fire-fighting agencies and districts in Valley County serving the communities of Cascade, Donnelly, McCall, and Yellow Pine, and their surrounding rural areas. There also are two small fire-fighting agencies in Adams County that serve New Meadows and Council. These fire-fighting agencies provide 24-hour fire protection for businesses and residents in their service areas and are mostly staffed by volunteers. All the fire-fighting districts within Valley County, the PNF, and the BNF comprise the Valley County Fire Working Group Collaborative (Wildfire Prevention Associates 2018). This group is responsible for the continued update of the Valley County Wildfire Protection Plan and emphasizes prevention of wildland-urban interface fires using a proactive, cooperative approach; ensures that the land development ordinances and building codes in Valley County support mitigation of wildland-urban interface fire danger; and promotes effective fuel reduction programs in all wildland-urban interface areas in Valley County (Wildfire Prevention Associates 2018).

Utilities

The communities of Cascade, Donnelly, McCall, and Yellow Pine in Valley County each operate their own community water and sewer systems. In addition, there are several condominium complexes, subdivisions, and church camps with central water systems and a few subdivisions that have central sewer systems. Some outlying areas have formed districts (such as the Northlake Recreational Sewer and Water District), but most of Valley County's rural homes rely on individual water wells and septic systems. Both Adams County and New Meadows operate their own water and sewer systems. Both Adams and Valley counties contract with Lakeshore Disposal for trash hauling services and operation of two materials recovery facilities located in New Meadows and Donnelly. These facilities serve as transfer stations, and the collected solid waste is hauled for processing and disposal at recycling centers and landfills outside the county. Residents can haul their own refuse to the materials recovery facilities for a nominal dumping and processing fee. Residents also can drop off recyclables in New Meadows, Council, McCall, Cascade, and Donnelly.

Utilities and communications are readily available to Valley and Adams counties residents. Idaho Power Company provides electric service to the region. Natural gas is not available in the area; therefore, homes are heated with electricity, propane, fuel oil, wood, and/or pellets.

Education

Valley County has a slightly higher percentage of individuals with a high school degree or higher (94 percent) than the state average of 90 percent. Approximately 32 percent of Valley County residents have a bachelor's degree or higher (Census 2018). Valley County has two public school systems, McCall/Donnelly School District No. 421 (which includes the village of Yellow Pine) and Cascade School District No. 422.

McCall/Donnelly School District No. 421 serves the northern part of Valley County and includes five schools as shown with enrollment in **Table 3.21-4**.

Table 3.21-4 Enrollment for McCall/Donnelly School District No. 421

School Name	2000 Enrollment	2010 Enrollment	2019 Enrollment
Donnelly Elementary	106	121	166
Barbara R. Morgan Elementary	301	299	413
Payette Lakes Middle School	235	218	314
McCall/Donnelly High School	359	275	338
Heartland High School	22	17	34
District Total	**1,023**	**930**	**1,265**

Source: Idaho Department of Education 2019; Midas Gold 2017h

Cascade School District No. 422 provides kindergarten through high school education for southern Valley County residents at its single facility, the Cascade School. In 2000, the Cascade School's enrollment was 310 students, which fell to 293 students in 2010 and to 192 students in 2019 (Idaho Department of Education 2020a).

Several private and public schools in Valley County also provide other education options, including two private schools located in McCall, North Fork School and Crestline Academy. North Fork School, which had approximately 19 students during the 2019-2020 school year, provides third through 12th grade education and most North Fork School students are dually enrolled in the McCall-Donnelly public schools (North Fork School 2020). Crestline Academy provides kindergarten through 12th grade education. The University of Idaho Cooperative Extension Office, located in Cascade, administers the local 4-H program, which provides continuing education for adults.

The Western Idaho Community Action Partnership, Inc., a private non-profit organization, administers the Head Start Program in Donnelly. The program provides early childhood education programs for three- and four-year-old children from low-income households, and for disabled children.

Adams County has a slightly lower percentage of individuals with a high school degree or higher (89 percent), which is comparable to the state average of 90 percent (Census 2018). Adams County has public schools in New Meadows and Council. Meadows Valley School provides pre-kindergarten through high school education with a 2019 enrollment of 153 students (Idaho Department of Education 2020b). The Council Elementary School provides pre-kindergarten through sixth grade education with a 2019 enrollment of 148 students (Idaho Department of Education 2020c). The Council Junior-Senior High School provides seventh grade through 12th grade education and enrolled 111 students in 2019 (Idaho Department of Education 2020c). Between 2010 and 2019, Meadows Valley School District's student enrollment decreased by 22 percent, while enrollment in the Council School District increased by 14 percent (Idaho Department of Education 2020b, 2020c).

Libraries

Valley County has three public libraries located in McCall, Donnelly, and Cascade. The Donnelly Library is funded through the Donnelly Public Library District, while the McCall and Cascade libraries are funded by city taxes. Adams County has libraries in New Meadows and Council that are funded by city taxes, but residents outside the city limits can pay membership dues to obtain library service privileges. In addition to their lending services, the libraries provide public access to internet, fax and copy services, medical journals, legal materials, videos, audio books, periodicals, inter-library loan services, backcountry services, outreach programs, reading programs, and research assistance. There also is a law library at the Valley County Courthouse in Cascade, which is open to the public.

3.21.4.7 Recreation Use

Recreation users in the analysis area are mostly locals, originating from areas such as Yellow Pine, Warm Lake, Big Creek/Edwardsburg, Cascade, and Long Valley (Forest Service 2010a). Users particularly in the western portion of the analysis area are from populated areas further south including Treasure Valley and Boise (Forest Service 2010a). Recreation use occurs throughout NFS, state, and private lands in the analysis area. Recreation is described further in **Section 4.19** and in the SGP Recreation Specialist Report (Forest Service 2032m). In 2019, there were a variety of recreation-related special use permits issued by the Forest Service within the analysis area: three lodges, one bicycle event, four outfitters and guides, two organizational camps, and 62 recreation residences. Permits issued for the PNF include a lodge, biking event, and three outfitters and guides while permits issued for the BNF include one outfitter and guide, two lodges, two organizational camps, and 62 recreation residences. All but one of the recreation-related special use permits issued for the BNF are in the Warm Lake area.

As noted in the 2018 McCall Area Comprehensive Plan (City of McCall 2018b), the traditional local resource economic base from the 20th century has converted to a visitor and service-based economy, including accommodations, food service, and outfitters for local recreation activities. Most of the 21st century economic and population growth in the county is attributable to service sector growth that supports visitors, recreationists, and tourists. The majority of local and Idaho residents participate in outdoor recreation (including use of Forest Service lands) that contribute $112 million to Idaho's Gross Domestic Product (Idaho Commerce 2022).

3.21.4.8 Government Revenues

Valley and Adams counties residents and businesses pay federal, state, and local income taxes. Household and business purchases generate sales taxes, and the structures owned by individuals and businesses in the area are subject to city and/or county property taxes. There also are product taxes and/or fees on many items, including beer, wine, cigarettes, motor fuels, motor vehicle licensing fees, regulatory taxes, and business ownership. Idaho tax revenues for Fiscal Years 2017 and 2019 are provided in **Table 3.21-5**.

Table 3.21-5 Idaho Tax Revenues for Fiscal Years 2017 and 2019

Type of Taxation	Fiscal Year 2017 Revenue ($M)	Fiscal Year 2019 Revenue ($M)	Percent Change (2017 to 2019)
Personal Income/Property	$1,590.9	$1,661.1	4.8%
Corporate Income/Property	$202.5	$283.2	39.8%
State Sales	$1,379.7	$1,597.7	15.7%
Product	$56.9	$64.3	13.0%
Mine License Fees	$0.05	$0.02	-60.0%
Other Miscellaneous	$124.2	$128.3	3.3%
Total Revenues	$3,354.3	$3,734.6	11.3%

Source: Idaho Division of Fiscal Management 2020; Midas Gold 2017h. M = million.

Revenues for funding county services are obtained from a variety of sources, including local sales and use taxes, local property taxes, Idaho general funds, Idaho Lottery funds, and Idaho highway users' funds. Schools in Valley and Adams counties also receive federal funding under the Secure Rural Schools program.

Valley County had a 2018 budget of $25.1 million, which included $7.5 million in property taxes, $3.8 million in intergovernmental revenues, and $1.5 million in grants funding (Valley County 2018b) among other sources. Adams County had a 2018 budget of $8.9 million, which included $2.4 million in taxes, $0.3 million in grants, and $2.2 million in state funding (Adams County 2018) among other sources. Neither Valley County nor Adams County has a separate sales tax; however, the cities of Donnelly and McCall impose a one percent local sales tax in addition to Idaho's six percent state sales tax. Both counties collect property taxes from lands and structures owned by individuals and businesses. These collected property taxes fund county government operations and local school systems.

Both counties have a high percentage of federal lands, which limits their potential tax base. In 2017, Valley County received approximately $2.6 million in federal land payments for the 2,046,000 acres (or 88 percent) of federally managed Valley County land (Midas Gold 2017h). The federal land payments consisted of approximately $1.8 million in Forest Service Revenue Sharing and $0.8 million Payment In Lieu of Taxes disbursements. Approximately $2.0 million of these federal land payments were distributed to the County government and comprised eight percent of the Valley County budget (Headwaters Economics 2019a; Valley County 2018b). Local school districts received approximately $500,000 of these federal land payments with the remainder distributed to the region's Resource Advisory Committee.

Federally managed land accounts for approximately 68 percent of Adams County's land base. In 2017, Adams County received approximately $900,000 in federal land payments consisting of approximately $700,000 in Forest Service Revenue Sharing and $200,000 in Payment In Lieu of Taxes disbursements. Approximately $700,000 in federal land payments were distributed to the county government and $200,000 million was distributed to local school districts. Federal land payments comprised 7 percent of the Adams County budget (Adams County 2018; Headwaters Economics 2019b).

Mining and mineral sales in Idaho result in property taxes and mining licensing fees for both the state and counties, and mineral extraction from public lands also can generate lease and royalty payments for the

government. In 2012, the State of Idaho and its local governments received mine operations contributions of approximately $6.0 million in local property taxes and $7.0 million in state royalties, rents, and license fees (Idaho Mining Association 2013).

3.22 Environmental Justice

3.22.1 Introduction

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Environmental justice is considered during the NEPA process to determine whether any disproportionately high and adverse human health or environmental effects to low-income, racial minority, and tribal populations may occur as a result of the federal action, in accordance with EO 12898.

3.22.2 Environmental Justice Area of Analysis

The analysis area for environmental justice consists of the communities and populations that would potentially be adversely affected (either directly or indirectly) by the SGP. The communities identified with the potential to be affected by the SGP comprise all of Valley County and Adams County and are represented by the 2017 Census tracts shown on **Figure 3.22-1**. In addition, the environmental justice analysis area includes Native American Tribes whose traditional subsistence range includes the SGP area (i.e., the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes) to determine the extent that tribal members would experience adverse health or environmental effects as a result of the SGP. These communities are located more than 100 miles from the analysis area. However, tribal members may have long-established cultural, ceremonial, and subsistence use relationships with the wilderness areas in and around the analysis area and surrounding public lands. The Nez Perce CCD is a census-recognized subdivision within the Reservation that includes the community of Lapwai, which is the seat of the Nez Perce tribal government and has the highest proportion of tribal members as residents. Therefore, the Nez Perce CCD was selected to represent the population of the Nez Perce Tribe for the environmental justice analysis.

3.22.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and implementing regulations apply to the Proposed Action and action alternative. The following is a list of additional laws, regulations, policies, and plans at the federal, state, or local level pertaining to Environmental Justice.

Executive Order 12898 - Requires federal agencies to “identify and address the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations”.

Executive Order 13985 – Sets expectation for a whole government approach for federal agencies. Section 8 directs federal agencies to: (1) consult with members of communities historically underrepresented in the Federal Government and underserved by, or subject to discrimination in, Federal policies and programs; and (2) evaluate opportunities, consistent with applicable law, to increase coordination, communication, and engagement with community-based organizations and civil rights organizations.

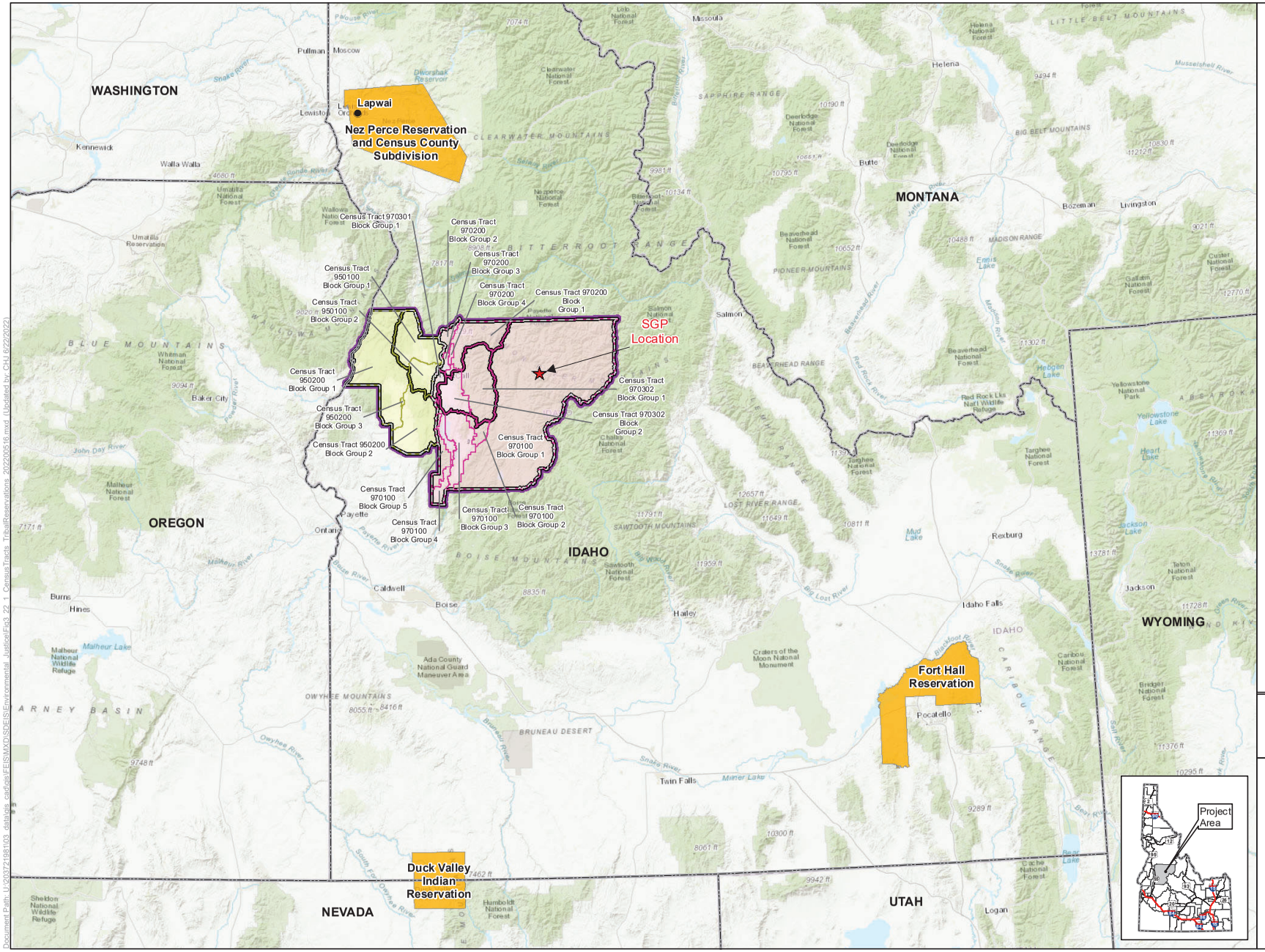


Figure 3.22-1
Tribal Reservations and Census Tracts
Stibnite Gold Project
Stibnite, ID

Executive Order 13990 – Directs Federal agencies to review and take action to address Federal regulations promulgated and other actions taken that conflict with national objectives to improve public health and the environment; ensure access to clean air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce greenhouse gas emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and employment.

Executive Order 14008 – Requires agencies to make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.

National Forest Land and Resource Management Plans - The Payette Forest Plan (Forest Service 2003a), and the Boise Forest Plan (Forest Service 2010a) provide management prescriptions designed to realize goals for achieving desired condition for environmental justice and include various objectives, guidelines, and standards for this purpose.

NEPA Guidance for Forest Service implementation of NEPA (2014d) utilizes the CEQ definition of minority populations:

1. A readily identifiable group of people living in geographic proximity with a population that is 50 percent minority. The population with a 50 percent minority may be made up of one minority or a number of different minority groups; together the sum is 50 percent.

2. A minority population may be an identifiable group that has a meaningfully greater minority population than the adjacent geographic areas or may also be a geographically dispersed/transient set of individuals such as migrant workers or Native Americans.

While both definitions were examined, the second definition was more applicable for the SGP.

For a community to meet the federal definition of an environmental justice community for its low-income status, the percentage of people with an income below the Federal Poverty Level in the Census block group, CCD, or reservation for this analysis would need to be meaningfully greater than the statewide average.

3.22.4 Affected Environment

The state of Idaho was used to represent the general population and “meaningfully greater” was defined as 5 percentage points or more per Forest Service guidance to identify minority communities of concern for environmental justice analysis (Forest Service 2014d). Given the total minority population statewide of 17.4 percent, a community with a total minority population of 22.4 percent or more would meet the definition of a minority community.

Many of the local communities have mixed cash-subsistence economies that provide wage-based employment opportunities, as well as opportunities for a subsistence lifestyle that also contribute to residents' quality of life and sense of place. As a result, there could be SGP-related cultural and/or socioeconomic impacts on the tribal populations that have traditional hunting, gathering, and fishing rights to lands at or near SGP-related components. The Native American populations included in the analysis live throughout Idaho, Washington, Oregon, and Nevada. The Nez Perce Reservation's major tribal population lives in the towns of Lapwai and Kamiah, Idaho which are part of the Nez Perce CCD. The Nez Perce CCD is recognized as a community that could potentially experience SGP-related socioeconomic impacts. The Shoshone-Bannock Tribes on the Fort Hall Reservation and Shoshone-Paiute Tribes on the Duck Valley Indian Reservation are other Native American communities that could potentially experience SGP-related socioeconomic impacts.

3.22.4.1 Environmental Justice Communities in the Analysis Area

Table 3.22-1 shows the race, ethnicity, and poverty percentages for each community (by Census block group, CCD, or reservation) in the environmental justice analysis area. The table also shows the corresponding demographics for Idaho's statewide population, which is applied as the general reference population for evaluating whether a community has a meaningfully greater minority population or community with environmental justice concerns.

Valley County and Adams County

In Valley and Adams counties, no community in the analysis area met the definition of an environmental justice community. Because of its proximity to the proposed SGP and its smaller population, the community of Yellow Pine was reviewed to determine its environmental justice status. Yellow Pine is in Block Group 2 of Census Tract 9701. However, in 2017 the population of this block group was 100 percent white, and only 7.0 percent of its residents had incomes below the federal poverty line, which is less than half of the statewide average (14.5 percent) (Census 2017). As a result, the community of Yellow Pine does not meet the definition of an environmental justice community.

3.22.4.2 Nez Perce Tribe

The Nez Perce Reservation is a geographically large area with a diverse population of 18,790 residents (Census 2017). Historically, the Nez Perce Tribe was a nomadic tribe whose territory included what is now Idaho, Oregon, Washington, and Montana. Today, the Nez Perce Reservation encompasses portions of Nez Perce, Clearwater, Lewis, and Idaho counties in Idaho.

The Nez Perce CCD, which is a Census recognized subdivision within the Nez Perce Reservation, is located entirely within Idaho (**Figure 3.22-1**) The majority (66 percent) of the subdivision's 2,670 residents that self-identify as Native American. The Nez Perce CCD meets the definition of an environmental justice minority community based on its American Indian population (35.2 percent) and total minority population (48.4 percent), which are both meaningfully greater than Idaho's statewide averages (1.1 percent American Indian and 17.4 percent total minority). The Nez Perce Tribe also meets the definition of a community with environmental justice concerns, because the percentage of its residents with annual incomes below the federal poverty level (19.8 percent) is meaningfully greater than Idaho's statewide average (14.5 percent).

Table 3.22-1 Race, Ethnicity, and Poverty for Valley and Adams County, and Tribes

Geography	White Alone[1]	Hispanic[2] Origin	African American	American Indian and Alaska Native	Asian	All Other Minorities[3]	Total Minority[4]	Below Federal Poverty Level
State of Idaho	82.0%	12.5%	0.7%	1.1%	1.3%	2.2%	18.0%	8.1%
Census Tract 9701, Valley County, Idaho	95.8%	3.4%	0.2%	0.0%	0.0%	0.7%	4.1%	4.2%
Census Tract 9702, Valley County, Idaho	98.4%	0.1%	0.1%	0.6%	0.8%	0.0%	1.6%	4.3%
Census Tract 9703, Valley County, Idaho	91.4%	8.3%	0.0%	0.0%	0.0%	0.2%	8.6%	0.7%
Census Tract 9501, Adams County, Idaho	90.7%	5.3%	0.0%	2.7%	0.0%	1.3%	9.3%	4.9%
Census Tract 9502, Adams County, Idaho	93.0%	2.4%	0.7%	1.1%	0.0%	2.4%	7.0%	9.3%
Nez Perce CCD[5], Nez Perce County, Idaho	51.6%	6.2%	0.5%	**35.2%**	0.4%	6.1%	**48.4%**	**19.8%**
Duck Valley Reservation[6]	6.8%	5.1%	0.2%	**83.9%**	0.9%	3.1%	**93.2%**	**32.3%**
Fort Hall Reservation[6]	26.6%	11.9%	0.0%	**58.4%**	1.0%	2.0%	**73.4%**	**21.9%**

Source: Census 2017 (most recent data for Nez Perce CCD, Duck Valley Reservation, Fort Hall Reservation), Census 2019 (State of Idaho, Valley County, Adams County)
[1] Non-Hispanic White population only, as a basis of comparison for minority groups.
[2] Hispanic is an ethnicity which could include any race, including White.
[3] All Other Minorities includes Native Hawaiian and Other Pacific Islander, some other race, and two or more races.
[4] Total minority equals total population minus the Non-Hispanic White population.
[5] CCD = Census County Subdivision – A county subdivision delineated cooperatively by the Census and local government authorities.
[6] Census identified American Indian Reservation areas and populations.
Bold indicates block group or CCD meets the definition of an environmental justice community.

3.22.4.3 Shoshone-Bannock Tribes of the Fort Hall Reservation

The Shoshone-Bannock Tribes of the Fort Hall Reservation historically occupied vast regions of what is now Idaho, Oregon, Nevada, Utah, Wyoming, Montana, and areas of Canada (ICCNAC 1992). The Fort Hall Reservation is located in southeast Idaho (**Figure 3.21-1**).

The Fort Hall Reservation includes a population of 5,955 residents, of which approximately 58 percent self-identify as Native American (Census 2017). The Fort Hall Reservation meets the definition of an environmental justice minority community, as its American Indian population (58.4 percent) and total minority population (73.4 percent) are both meaningfully greater than Idaho's statewide averages (1.1 percent American Indian and 17.4 percent total minority). The Fort Hall Reservation also meets the definition of a community with environmental justice concerns, because the percentage of its residents with annual incomes below the federal poverty level (21.9 percent) is meaningfully greater than Idaho's statewide average (14.5 percent).

3.22.4.4 Shoshone-Paiute Tribes of the Duck Valley Indian Reservation

The Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, located in southwestern Idaho and northeastern Nevada (**Figure 3.21-2**), historically occupied what is now Idaho, Nevada, and Oregon.

The Duck Valley Reservation includes a population of 1,353 residents (Census 2017). Of these residents, approximately 84 percent self-identify as Native American. The Duck Valley Reservation meets the definition of an environmental justice minority community based on its American Indian population (83.9 percent) and total minority population (93.2 percent) as both are meaningfully greater than Idaho's statewide averages (1.1 percent American Indian and 17.4 percent total minority). The Duck Valley Reservation also meets the definition of a community with environmental justice concerns, because the percentage of its residents with annual incomes below the federal poverty level (32.3 percent) is meaningfully greater than Idaho's statewide average (14.5 percent).

3.22.4.5 Native American Use of SGP Area

Numerous areas throughout the PNF and the BNF have traditional, cultural, and spiritual significance for the tribes. Tribal use, preservation, and protection of these sacred areas are important means by which tribal members maintain their cultural and religious links to the past and their ancestors. Areas with more than one type of cultural significance to the tribes often include locations such as mountain ridges, hot springs, waterfalls, trails, rock art panels, and traditional collection areas. Other landscape features of importance include Riordan Lake and high points in the landscape (e.g., mountain tops and ridgelines), which have religious significance and traditional plant gathering locations or collection areas.

The Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes traditional subsistence ranges include the SGP area. There are several traditionally collected plant and animal species, including various types of salmon, in the analysis area. These resources continue to be important to the tribes with interests in the area. Information received from the tribal ethnographies indicate that areas, resources, and off-reservation rights of concern and importance include fishing rights in the SFSR watershed, including the East Fork SFSR, Meadow Creek, Fiddle Creek, West End Creek, and Sugar Creek.

The gathering of traditional plants and animals continues to be a significant part of the individual cultures of the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes. The ethnographies identify specific fish, wildlife, and plants that are of traditional and continued cultural importance. The Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes see this hunting and gathering practice as an important link to their past. Furthermore, due to their concern with maintaining this aspect of their cultures, the Tribes are taking an increasingly active role in the protection and restoration of various species of plants, animals, and fish.

The analysis for considering impacts on environmental justice communities is described in **Section 4.22** with additional information regarding effects on tribal rights described in **Section 4.24**.

3.23 Special Designations

3.23.1 Introduction

This section describes the existing (baseline) conditions relevant to special designations that have the potential to be affected by the SGP.

3.23.2 Special Designations Resources Area of Analysis

The analysis area for wilderness consists of the FCRNRW in the PNF MA 14, BNF MA 22, and a portion of the Salmon-Challis National Forest with Big Creek as the northern boundary and the Middle Fork Salmon River as the eastern and southern boundary. The analysis area also includes recommended wilderness within PNF MA 12 SFSR and BNF MAs 18 Cascade Reservoir and 19 Warm Lake (**Figure 3.23-1**).

The analysis area for WSRs includes the study corridors for those rivers determined to be eligible and suitable for inclusion in the National System that intersect with the SGP area and the management areas associated with these waterways. Study corridors extend 0.25 mile on either side from the high-water mark of each eligible or suitable river segment. **Figure 3.23-2** shows the location of study corridors, which are the analysis area, in relation to SGP components. Specific river segments that are crossed by SGP components and are the focus of this analysis include: Burntlog Creek (eligible), Johnson Creek (eligible), and SFSR (suitable) (Forest Service 2003a, 2010a).

The analysis area for direct and indirect effects on IRAs comprises the 13 IRAs and other lands within five miles of the SGP area **(Figure 3.23-3**).

The analysis area for RNAs are the RNAs that are within five miles of SGP facilities, which include Belvidere Creek and Chilcoot Peak (**Figure 3.23-4**).

3.23.3 Relevant Laws, Regulations, Policies, and Plans

Several laws and implementing regulations apply to the Proposed Action and Alternatives. The following is a list of laws, regulations, policies, and plans at the federal, state, or local level pertaining to special designations. Additional descriptions and complete guidelines for implementation of these regulations can be found in the SGP Special Designations Specialist Report (Forest Service 2023p).

3.23.3.1 Wilderness

National Forest Land and Resource Management Plans (Wilderness): Management direction in FCRNRW Management Plan is derived from the Wilderness Act and subsequent legislation that aimed to protect these special areas and preserve wilderness character (11 USC 1131). One requirement that defines Wilderness is a roadless, undeveloped condition (Forest Service 2003a, 2010a).

The Payette Forest Plan and the Boise Forest Plan (Forest Service 2003a, 2010a) also have standards and guidelines for designated wilderness and recommended wilderness areas. The desired condition for people visiting wilderness in the National Forest is to find outstanding opportunities for primitive and unconfined recreation, including exploration, solitude, risk, and challenge. Wilderness areas are primarily affected by the forces of nature, with human imprint being substantially unnoticeable. For recommended wilderness areas, the Forest Service preserves the unique wilderness character of these areas until Congress acts on the Forest Service recommendation.

The Payette Forest Plan and the Boise Forest Plan include management prescriptions and practices for specific areas, including designated wilderness (MPC 1.1) and recommended wilderness (MPC 1.2). The goal of MPC 1.1 is to "Protect wilderness values as defined in the 1964 Wilderness Act. Improve opportunities and experiences through the development of individual wilderness management plans, partnerships with permittees and user groups, and interpretive and educational opportunities". The goal of MPC 1.2 is to manage recommended wilderness to protect wilderness values as defined in the Wilderness Act. Activities permitted in recommended wilderness must not compromise wilderness values or reduce the area's potential for wilderness designation.

Wilderness Act of 1964 (Wilderness): The Wilderness Act of 1964 mandates that "each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area (Section 4(b))." The Wilderness Act identifies the five qualities of wilderness: untrammeled, natural, undeveloped, outstanding opportunities. Definitions of each are further provided in the Special Designations Specialist Report (Forest Service 2023p). Section 2(c)(4) of the Wilderness Act says these areas "may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." Some of these features, such as the presence of threatened and endangered species, also are part of the natural quality of a wilderness. Other features of value must be just as rigorously protected as the qualities of wilderness character (Arthur Carhart National Wilderness Training Center 2014).

The FSH-1909.12 (Chapter 7) discusses these attributes of wilderness and discusses additional attributes to be considered in evaluating potential wilderness areas. These values include the contributions of wilderness to cultural and historic preservation; opportunities for self-discovery, self-reliance, and challenge; the scenic beauty of an area; and individual and social well-being.

36 CFR 293 (Wilderness – Primitive Areas): Federal policy related to designated wilderness areas in the NFS can be found in 36 CFR 293. The objectives related to wilderness can be found in 36 CFR 293.2. Forest Service policy related to the management of designated wilderness lands can be found in FSM 2320 – Wilderness Management.

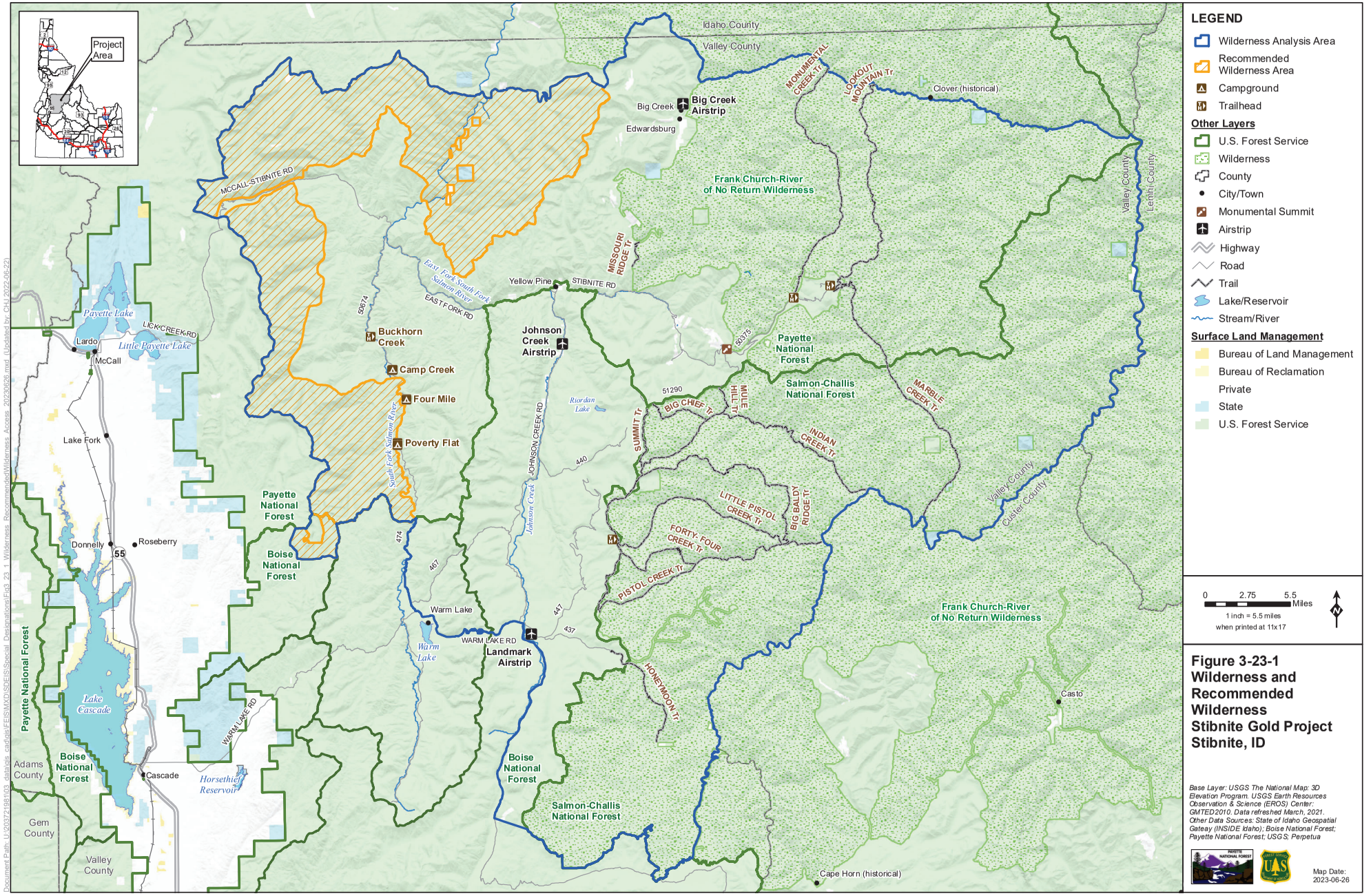
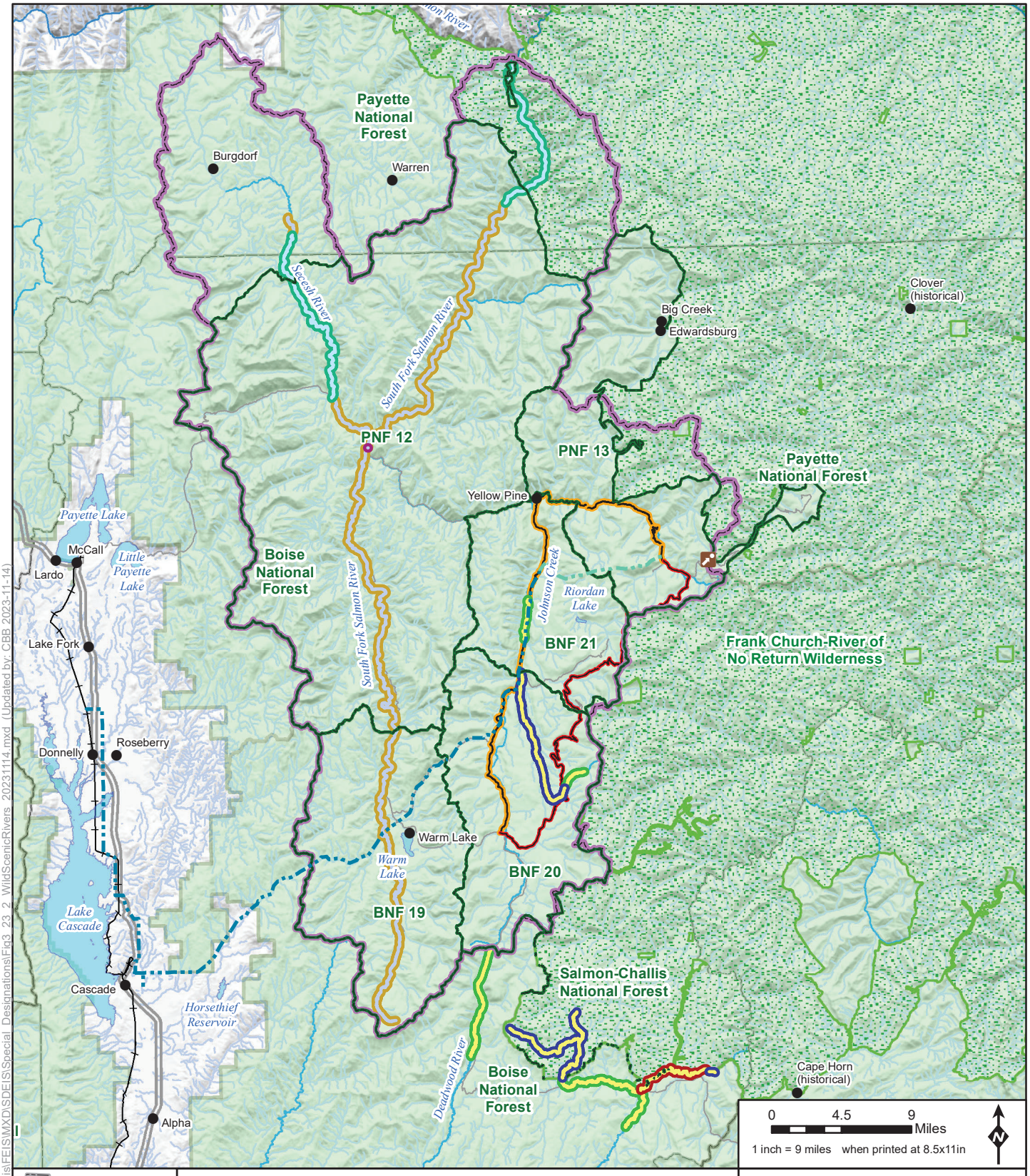
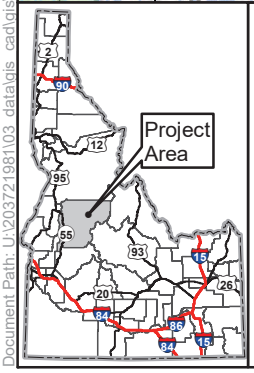


Figure 3-23-1
Wilderness and Recommended Wilderness
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS The National Map: 3D Elevation Program. USGS Earth Resources Observation & Science (EROS) Center: GMTED2010. Data refreshed March, 2021. Other Data Sources: State of Idaho Geospatial Gateay (INSIDE Idaho); Boise National Forest; Payette National Forest; USGS; Perpetua

Map Date: 2023-06-26





LEGEND

- USFS Management Area
- **Analysis Area**
- **River Segment Status/Classification**
  - Eligible, Recreational
  - Eligible, Scenic
  - Eligible, Wild
  - Suitable, Recreational
  - Suitable, Scenic
  - Suitable, Wild
- **Project Components**
  - Burntlog Route
  - Johnson Creek Route
- **Utilities**
  - Upgraded Transmission Line
  - New Transmission Line
- **Other Features**
  - U.S. Forest Service
  - Wilderness
  - County
  - City/Town
  - Monumental Summit
  - Railroad
  - Highway
  - Road
  - Stream/River
  - Lake/Reservoir
  - South Fork Salmon River Watershed

Figure 3.23-2
Wild & Scenic Rivers
Stibnite Gold Project
Stibnite, ID

Base Layer: USGS The National Map: 3D Elevation Program. USGS Earth Resources Observation & Science (EROS) Center: GMTED2010. Data refreshed January, 2020. Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest

Map Date: 2023-11-14

Document Path: U:\20372\1981103 data\gis cad\gis\FEIS\MXD\SDEIS\Special Designations\Fig3 23 2 WildScenicRivers 20231114.mxd (Updated by: CBB 2023-11-14)

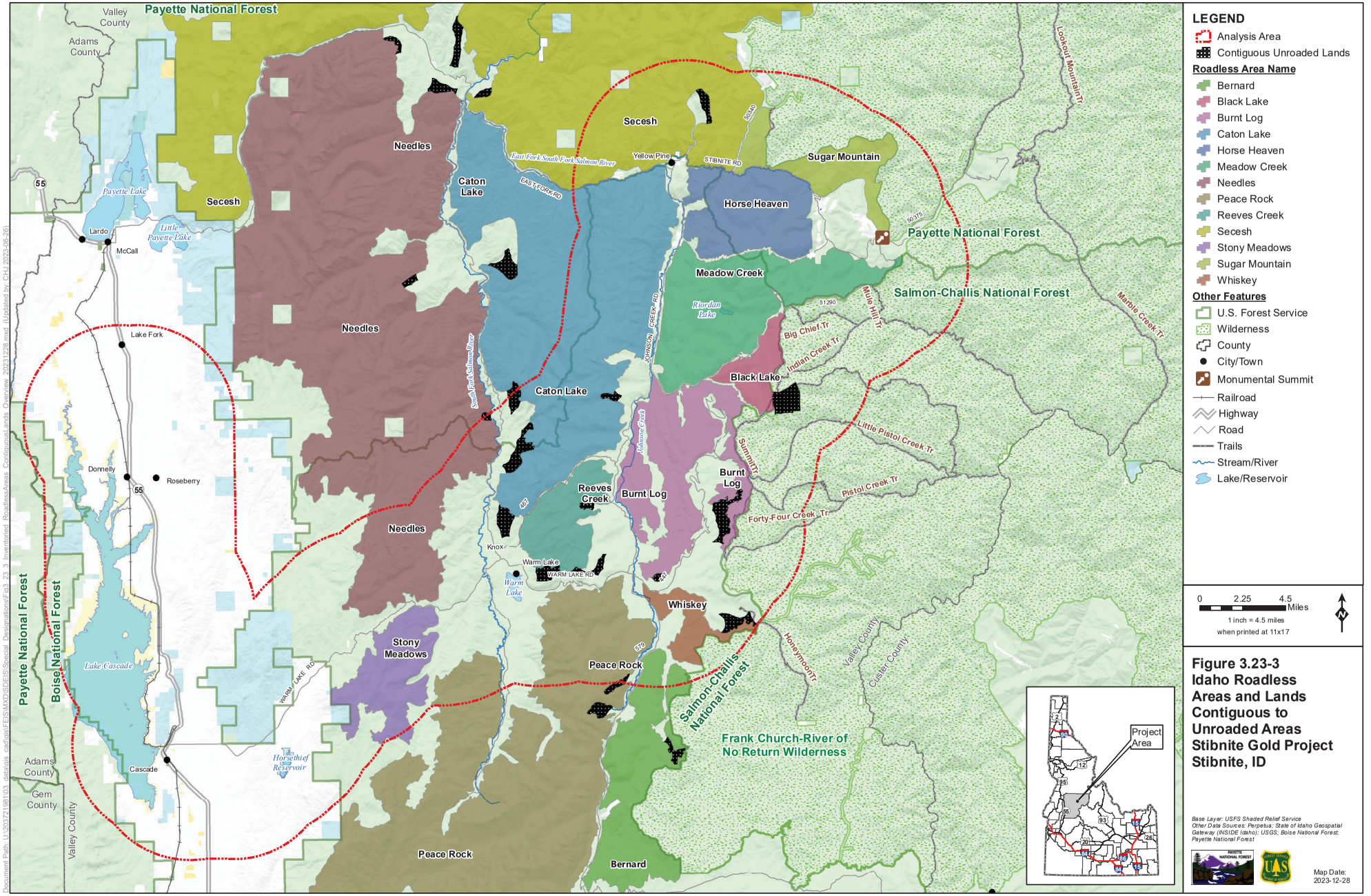
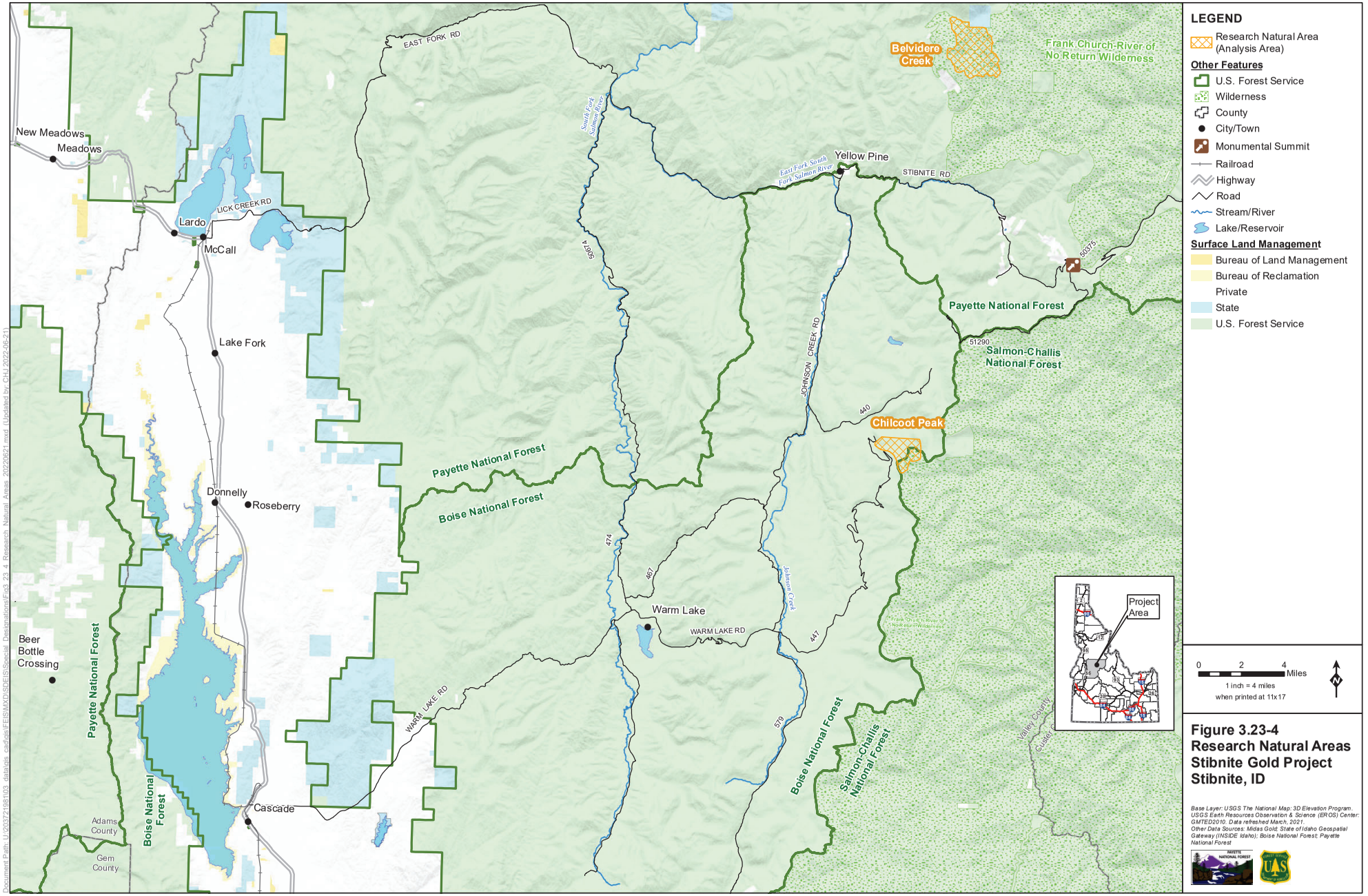


Figure 3.23-3 Idaho Roadless Areas and Lands Contiguous to Unroaded Areas Stibnite Gold Project Stibnite, ID

Base Layer: USFS Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); USGS; Boise National Forest; Payette National Forest

Map Date: 2023-12-28



Central Idaho Wilderness Act (Wilderness): On July 23, 1980, the U.S. Congress passed the Central Idaho Wilderness Act, Public Law 96-312. This act created the 2,361,767-acre River of No Return Wilderness. Senator Frank Church's name was added in 1984 by Public Law 98-231 in recognition of his efforts in passing the Central Idaho Wilderness Act.

3.23.3.2 Wild and Scenic Rivers

National Forest and Resource Management Plans (WSRs): Per the WSR Act, the Forest Service manages river segments and their corridors that are eligible or suitable for inclusion in the National System to retain their free-flowing status; water quality; WSR classification; and outstandingly remarkable values for scenery, wildlife, cultural, fish, geology, hydrology, ecological, or botanical resources, as applicable. The Payette Forest Plan and the Boise Forest Plan provide direction for managing WSRs via applicable standards and guidelines under these forest plans for providing direction and assessing impacts on eligible, suitable, and designated WSRs.

Wild and Scenic Rivers Act: The National WSR System was created by Congress in 1968 (Public Law 90-542; 16 United States Code [USC] 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition. There are four steps in the WSRs process under the Act, including Inventory, Eligibility Determination, Classification, and Suitability Determination. As discussed in more detail below, the PNF and BNF have previously performed the first three of these steps for waterways in and around the SGP area and completed Suitability Determination for the SFSR.

River Management Provisions: The WSR Act requires agencies to protect rivers that they have identified as having "outstandingly remarkable values," free-flowing condition, and associated water quality. The requirements and processes to protect these river values through coordinated federal actions are detailed in several sections of the WSR Act. Specific management prescriptions for eligible river segments include free-flowing values, outstandingly remarkable values, and classification impacts.

Section 7 of the WSR Act: Section 7(a) of the WSR Act provides a specific standard for review of developments on or directly affecting a designated WSR river segment. Development may occur if the project "will not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area as of the date of designation…" This standard applies to projects outside the designated river corridor but on the same river or a tributary. None of the streams or rivers in the analysis area are designated WSRs, and a Section 7 analysis is conducted for federal water resources projects (i.e., located below the ordinary high-water mark); therefore, it is not applicable to the Project.

Visual Management System: The Forest Service is directed by policy to inventory, classify, and manage lands for their scenic resource values. Scenic resources are managed through VQOs designed to provide measurable standards that direct levels of acceptable visual change (Forest Service 1974b). The range of VQO categories includes Preservation, Retention, Partial Retention, Modification, and Maximum Modification. Per forest-wide standards and guidelines contained in the Payette Forest Plan (Forest Service 2003a) and Boise Forest Plan (Forest Service 2010a), VQOs are assigned to eligible and suitable WSR segments based on their preliminary classification: preservation to a wild classification, retention to a scenic classification, and partial retention to a recreational classification.

WSR State Regulations (WSR): No state regulations directly address eligible, suitable, or designated WSRs. The Idaho State Water Resources Board has not designated state-protected rivers in the Salmon River basin. The Idaho Stream Channel Protection Act requires that the stream channels of the State and their environment be protected against alteration for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality. As a result of the Stream Channel Protection Act, the IDWR must approve in advance any work proposed within the bed and banks of a continuously flowing stream.

3.23.3.3 Idaho Roadless Areas

National Forest Land and Resource Management Plans (IRAs): One requirement for Wilderness is a roadless, undeveloped condition. Forest-wide guidelines from the PNF and BNF applicable to the IRAs include non-conforming uses in recommended wilderness areas and review of boundaries of IRAs during project-level planning. The Idaho Roadless Rule authorized administrative corrections to maps to address clerical or typographic errors. PNF and BNF forest-wide standards for IRAs and lands contiguous to unroaded areas provide general direction that management actions may only degrade aquatic, terrestrial, and watershed resource conditions for up to three years, and there are standards for construction of new roads in Riparian Conservation Areas. These plans also contain direction regarding application of standards and other direction to mineral activity; focused on mitigation of effects. The Salmon-Challis National Forest forest-wide standard for wilderness corridors prohibits land-disturbing activities, except legal mineral exploration, development, or other mining related activity, that would degrade the wilderness characteristics.

Wilderness Act of 1964 (IRAs): The Wilderness Act of 1964 (16 USC 1131(note), 1131-1136) gives the statutory definition of wilderness (Section 2[c]), which helps define the evaluation process for potential wilderness in this planning process.

36 CFR 219.7 Special Designations (IRAs): Subpart a of 36 CFR 219.7 Special Designations describes the process for evaluating areas that may be suitable for inclusion in the National Wilderness System, which must be identified as part of the planning process, along with recommendations for wilderness designation. Inventories of lands that may be suitable for inclusion in the National Wilderness Preservation System are conducted following direction in FSH 1909.12—Land Management Planning Handbook, Chapter 70 Wilderness, which includes size and road improvement criteria.

Idaho Roadless Rule: The Idaho Roadless Rule (36 CFR 294 Subpart C) provides state-specific direction for the conservation of IRAs in the national forest in the state of Idaho. The Idaho Roadless Rule designated 250 IRAs and established five management themes that provide prohibitions with exceptions or conditioned permissions governing road construction, timber cutting, and mineral development (73 Federal Register 201 [61456-61496]).

3.23.3.4 Research Natural Areas

National Forest Land and Resource Management Plans (RNAs): The Payette Forest Plan and Boise Forest Plan describe desired future conditions in RNAs as areas where ecological processes generally prevail and remain largely undisturbed by human uses or activities. Per the Plans, RNAs provide quality opportunities

for non-manipulative scientific research, monitoring, observation, and study. Management plans have been developed and implemented for all RNAs (Forest Service 2003a, 2010a).

Organic Administration Act of 1897 (RNA): The general provisions of the Organic Administration Act of 1897 (16 USC 551) authorize the Secretary of Agriculture to designate RNAs. Under regulations at 7 CFR 2.60(a), the Secretary has delegated this authority to the chief of the Forest Service, who, pursuant to 36 CFR 251.23, selects and establishes RNAs as part of the continuing land and resource management planning process for NFS lands (36 CFR 219.7 and FSM 1922).

Forest Service Manual 4000 Research and Development, Chapter 4060 (RNA): Chapter 4060 of FSM 4000 provides direction for RNA management as part of a national network of ecological areas designated in perpetuity for research and education and/or to maintain biological diversity on NFS lands. RNAs are managed for nonmanipulative research, observation, and study. The establishment of RNAs emerges from continuing land and resource management planning and associated environmental analyses (FSM 1920 and FSM 1950). An establishment record, indicating the purpose of establishment and description of land and resource values, is required for each RNA."

3.23.4 Affected Environment

3.23.4.1 Wilderness

The FCRNRW covers over two million acres in central Idaho (**Figure 3.23-1**) and is the largest contiguous wilderness in the continental 48 states and the largest in the NFS. As the largest block of primitive and undeveloped land outside Alaska, this wilderness is of national importance (Forest Service 2003a). Recommended wilderness in the analysis area includes areas within the PNF and BNF east of McCall and north of Warm Lake. The FCRNRW and recommended wilderness areas include seven general land types: 1) lower river canyon lands; 2) upper river canyon lands; 3) rolling basin lands; 4) low relief fluvial lands; 5) steep volcanic lands; 6) steep granitic fluvial lands; and 7) glaciated lands. Elevations in the FCRNRW and recommended wilderness range from less than 2,000 feet in the lower river canyon bottoms to over 10,000 feet on higher mountain peaks (Forest Service 2009d).

The existing conditions of wilderness within the analysis area relative to the five qualities of wilderness identified in the Wilderness Act (untrammeled, natural, undeveloped, opportunities for solitude or primitive and unconfined recreation, and other features of value) are summarized in the following sections and discussed in further detail in the SGP Special Designations Specialist Report (Forest Service 2023p).

Untrammeled

The FCRNRW and recommended wilderness within the analysis area consist of large expanses where natural forces provide a wide and constantly changing variety of habitats and conditions. Natural ecological processes prevail, and many areas are unmanipulated by human activities. Wilderness character in the FCRNRW is affected by its variety of uses; however, wilderness retains a wild, uncontrolled nature that is indicative of its untrammeled character. The FCRNRW is actively managed for control of non-native invasive plant species to help maintain native plant communities. Invasive weed sites along Big Creek and the Middle Fork Salmon River have been identified (Forest Service 2007a);

implementation of the Forest Service's noxious/invasive weed management program in the FCRNRW includes the use of herbicides and restoration of weed sites to a native plant community. The Valley County weed program identifies the presence of 18 noxious weeds and non-native invasive plant species in the FCRNRW and recommended wilderness areas (Valley County 2019d).

Natural

Natural ecological systems inside the FCRNRW and recommended wilderness have been, and continue to be, affected by conditions and actions (including human actions outside of wilderness) beyond the wilderness boundary. The tributaries to the East Fork and the Middle Fork of the Salmon River provide natural conditions that range from good to excellent in terms of water quality for domestic use, recreational use, and wildlife in the wilderness. Water quality is functioning at risk in localized areas due to sedimentation impacts from historical livestock grazing, compounded by naturally high sediment rates, discussed further in **Section 3.9** and the SGP Surface Water and Groundwater Quality Specialist Report (Forest Service 2023f).

In the FCRNRW and recommended wilderness areas, habitat alterations due to fires in the wilderness have created brush fields, lodgepole pine stands, snag patches, and variations in species and age classes of vegetation (Forest Service 2003b; Herron and Freeman 2008). Following a fire, especially in areas that burned with high intensity, the potential for noxious/invasive weed invasion increases (Brooks and Lusk 2008). Weed managers in the FCRNRW have observed the spread of noxious/invasive weeds into burned areas, especially adjacent to existing weed sites (Forest Service 2007a).

Terrestrial habitat is at or near natural functioning condition with low levels of disturbance and fragmentation (Forest Service 2010a). Non-native wildlife species introduced into the wilderness prior to designation include chukar partridge and gray (Hungarian) partridge. The FCRNRW provides habitat for native resident and anadromous fish species. California golden trout and Arctic grayling have been introduced into some lakes and streams (Herron and Freeman 2008).

The "airshed" associated with the FCRNRW (Class II airshed) consists of areas both directly above the wilderness, as well as areas above lands adjacent to its boundary. Management of air quality in the FCRNRW includes monitoring to ensure that outside influences are not degrading the air quality beyond the Clean Air Act Class II standards. Existing air quality conditions and Class II standards are discussed in Section 3.

Undeveloped

Human development in the FCRNRW and recommended wilderness is mostly associated with visitor use, such as trailheads and backcountry airstrips. Aircraft use is prevalent during the late spring and summer months; during winter, backcountry flights are generally associated with flights into established airstrips, including those on private inholdings. Along the western wilderness boundary of the FCRNRW, access roads are dirt roads with high elevation passes that are closed by snow during the winter. Access roads to the FCRNRW and recommended wilderness areas also are dirt roads, except for the SFSR Road, and are further detailed in the SGP Special Designations Specialist Report (Forest Service 2023p).

Additional human development in the FCRNRW includes a very high frequency repeater site at Artillery Dome, Forest Service guard stations and patrol cabins, Big Creek and Indian Creek public airstrips, and private airstrips.

Opportunities for Solitude or Primitive and Unconfined Recreation

The FCRNRW and recommended wilderness areas provide a wide variety of user opportunities for exploration, solitude, natural environment, risk, challenge, and primitive and unconfined recreation. Visitors use outfitter and guide services in the FCRNRW and recommended wilderness areas to take part in hiking, horseback riding, hunting, fishing, floating, and rafting.

In areas away from access roads, trailheads, administrative sites, and other areas of concentrated use, the FCRNRW and the recommended wilderness areas offer outstanding opportunities for solitude and primitive and unconfined recreation during all seasons.

Other Features of Value

The FCRNRW and recommended wilderness areas also preserve "ecological, geological, or other features of scientific, educational, scenic, or historic value," as identified in section 2(c) of the Wilderness Act. This quality captures important elements of the wilderness, such as cultural or paleontological resources, that may not be covered in the other four qualities.

3.23.4.2 Wild and Scenic Rivers

Rivers in the PNF, BNF, and nearby Sawtooth National Forest were evaluated in 1997 in order to determine their eligibility for inclusion in the National System (Forest Service 2010a). The 1997 WSR study evaluated 889 streams and identified 45 with potential ORVs. These 45 streams were segmented and assigned preliminary classifications of recreational, scenic, or wild.

The analysis area for WSRs includes the entirety of the three of the streams identified as eligible during the 1997 study including the SFSR, Burntlog Creek, and Johnson Creek. A suitability study for the SFSR was performed as part of the Payette Forest Plan in 2003, and the SFSR was determined to be suitable (Forest Service 2003a). These waterbodies and their ORVs are briefly summarized below and further discussed in the SGP Special Designations Specialist Report (Forest Service 2023p). The SGP would intersect WSR corridors at the proposed access roads and utility corridors.

South Fork Salmon River

A combined suitability study of the PNF and BNF concluded that the SFSR is suitable for WSR designation. The SGP transmission line upgrade intersects the SFSR at the Warm Lake Road crossing of the river where the existing transmission line is located (Figure 6-1 of the SGP Special Designations Specialist Report [Forest Service 2023p]). This portion of the river is within BNF MA 19 Warm Lake and is estimated at 27.5 miles.

The river has a preliminary WSR classification of recreational. Recreational segments have a designated VQO of partial retention. The SFSR is recognized for the following ORVs: recreation, scenic, geological, cultural, botanical, and fisheries (Forest Service 2003a). SFSR Road is an asphalt road that parallels the SFSR and is compatible with the recreational classification of the river.

The IDEQ has designated total maximum daily load targets for sediment on the SFSR; however, detailed baseline data for existing water quality where the SGP components intersect the SFSR at Warm Lake Road have not been compiled (IDEQ 2011).

Burntlog Creek

Burntlog Creek, located in MA 20 Upper Johnson Creek, is eligible for inclusion in the National System from its headwaters to its confluence with Johnson Creek. Burntlog Creek has an ORV for fish (Forest Service 2010a), as it is a Pacfish/Infish priority watershed that supports spawning and rearing habitat for wild Chinook salmon, steelhead, cutthroat trout, redband trout, and bull trout. From its headwaters to the crossing of Burnt Log Road, Burntlog Creek is eligible as a recreational river and is eligible as a wild river downstream of Burnt Log Road (Figure 6-2 of the SGP Special Designations Specialist Report [Forest Service 2023p]). The VQO for the recreational segment is partial retention. The VQO for the wild segment is preservation.

Burnt Log Road separates the recreational segment of Burntlog Creek upstream of the road from the wild segment downstream. The road includes turnouts and is infrequently groomed as a snowmobile route in winter and includes a culvert crossing at Burntlog Creek.

From downstream of the Burnt Log Road crossing to its confluence with Johnson Creek, the waterway has a preliminary classification as wild that is estimated to be 10.9 miles. This segment also is in the Burntlog IRA (Forest Service 2010a). There are no utility rights-of-way located in the Burntlog Creek corridor.

The upper segment of Burntlog Creek, from its headwaters to where it crosses Burnt Log Road, has a preliminary classification of recreational; this segment is approximately 1.9-miles.

Detailed baseline information on existing water quality in Burntlog Creek has not been compiled for the SGP. IDEQ has evaluated beneficial uses for the creek, rating it 2.67 on a scale where a score of 3 or higher indicates that it fully supports macroinvertebrate, fish, and aquatic habitat functioning (IDEQ 2011).

Johnson Creek

An approximately 2.9-mile segment of Johnson Creek located in BNF MA 21 that is paralleled by Johnson Creek Road is eligible for inclusion in the National System, with a preliminary classification of recreational (Figure 6-3 of the SGP Special Designations Specialist Report [Forest Service 2023p]). The VQO for Recreational WSR segments is partial retention. This reach of Johnson Creek is eligible for WSR status because of its ORV for cultural (heritage) resources. Historic properties located within the 2.9-mile eligible corridor contribute to its Heritage ORV (Forest Service 2010a).

The IDEQ lists Johnson Creek on its 303(d) list of impaired waters, due to temperature (IDEQ 2011), which routinely exceeds the 10-degrees Celsius (50-degrees Fahrenheit) guideline for bull trout spawning in the summer.

3.23.4.3 Idaho Roadless Areas

The analysis area contains portions of 13 IRAs identified in the Idaho Roadless Rule. The management themes in the 2008 Idaho Roadless Rule beginning from most to least restrictive are: Wild Land Recreation; Special Areas of Historic or Tribal Significance; Primitive; Backcountry/Restoration; and General Forest, Range, and Grassland. The themes provide an array of permitted and prohibited activities regarding timber cutting, sale, or removal; road construction and reconstruction; and mineral activities. A sixth designation, Forest Plan Special Areas, was used to identify areas managed by forest plans for specific uses, such as WSRs, RNAs, or other specific purposes identified in forest plans. These areas are managed under the Payette Forest Plan (Forest Service 2003a) and Boise Forest Plan (Forest Service 2010a); the Idaho Roadless Rule does not apply to these areas (Forest Service 2008b, 2008c). Because all activities would be conducted pursuant to the General Mining Law of 1872, it would be compliant with the Idaho Roadless Rule section 36 CFR 294, Subpart C.

Table 3.23-1 displays the acreages in the Idaho Roadless Rule management classifications for the portions of the 13 IRAs managed by the PNF and BNF.

Table 3.23-1 Management Classifications of PNF IRAs

Roadless Area Name	Primitive Acres	Wild Land Recreation Acres	Forest Plan Special Area Acres	Backcountry Restoration Acres	Total Acres
PNF IRAs					
Caton Lake	0	0	2,049	43,377	45,426
Horse Heaven	0	0	0	13,446	13,446
Meadow Creek	0	0	0	8,007	8,007
Needles	7,022	90,230	2,534	31,493	131,279
Secesh	7,720	110,255	10,545	119,568	248,088
Sugar Mountain	0	0	0	10,340	10,340
Total	14,742	200,485	15,128	226,231	456,586
BNF IRAs					
Bernard	0	469	20,422	0	20,891
Black Lake	0	82	5,253	0	5,335
Burnt Log	0	3,837	19,862	0	23,699
Caton Lake	0	177	29,396	9,531	39,104
Horse Heaven	0	0	2,180	2,121	4,301
Meadow Creek	0	149	12,874	8,258	21,281
Needles	5,857	1,185	19,493	56	29,894
Peace Rock	137,429	7,096	47,209	0	191,734
Reeves Creek	0		10,542	0	10,542
Stony Meadows	6,401		7,150	0	13,551
Whiskey	0		4,970	0	4,970
Total	149,687	12,995	179,351	19,966	365,302

Source: Forest Service 2003a, 2008a

Table 3.23-2 lists the IRA management areas and MPCs as administered by the PNF or BNF. The IRAs in the analysis area include 1,841 acres recommended for wilderness inclusion (MPC 1.2) in the Payette Forest Plan (Forest Service 2003a). MPCs for both PNF and BNF are described as follows:

- 1.2 – Wilderness Inclusion
- 2.2 – Research Natural Area
- 3.1 – Passive Restoration and Maintenance of Aquatic, Terrestrial, and Hydrologic Resources
- 3.2 – Active Restoration and Maintenance of Aquatic, Terrestrial, and Hydrologic Resources
- 4.1c – Recreation: Maintain Unroaded Character with Allowance for Restoration Activities
- 4.2 – Roaded Recreation Emphasis
- 5.1 – Restoration and Maintenance Emphasis within Forested Landscapes

Table 3.23-2 Management Areas and Management Prescription Categories for IRAs in the Analysis Area

Forest Area and MA	MPC 1.2 Acres	MPC 2.2 Acres	MPC 3.1 Acres	MPC 3.2 Aces	MPC 5.1 Acres	MPC 4.1c Acres
Payette National Forest MA 13 Big Creek/Stibnite	0	0	37,308	8,021	0	0
Payette National Forest MA 12 SFSR	1,841	0	7,392	9,036	0	0
Boise National Forest MA 18 Cascade Reservoir	0	0	0	0	0	3,058
Boise National Forest MA 13 Deadwood River	0	0	30	0	0	0
Boise National Forest MA 21 Lower Johnson Creek	0	808	9,738	25,234	20,177	0
Boise National Forest MA 17 North Fork Payette River	0	0	0	0	0	5,336
Boise National Forest MA 20 Upper Johnson Creek	0	0	52,547	5	0	0
Boise National Forest MA 15 Upper Middle Fork Payette River	0	0	0	0	5	1,659
Boise National Forest MA 19 Warm Lake	0	0	80	37,868	0	0
Total	1,841	808	107,095	80,164	20,182	10,053

Source: Forest Service 2003a, 2010a

The lands contiguous to unroaded areas are areas with acreages of less than 5,000 acres and are adjacent to an IRA or the FCRNRW boundary (Forest Service 2010a). **Table 3.23-3** lists the MPCs for the approximately 9,498 acres of lands in the analysis area that are contiguous to unroaded areas administered by the BNF or the Salmon-Challis National Forest shown on Figure 6-4 of the SGP Special Designations Specialist Report (Forest Service 2023p). Lands contiguous to unroaded areas include 882 acres

recommended for wilderness inclusion in the Boise Forest Plan (Forest Service 2010a) and 1,084 managed as Wilderness Corridor under the 1987 Salmon-Challis Forest Plan.

Table 3.23-3 Management Areas and Management Prescription Categories for Lands Contiguous to Unroaded Areas in the Analysis Area

Forest Area and MA	MPC 1.2 Acres	MPC 3.1 Acres	MPC 3.2 Acre	MPC 4.2 Acres	MPC 5.1 Acres	Wilderness Corridor Acres
Boise National Forest MA 17 North Fork Payette River	0	0	0	0	112	0
Boise National Forest MA 19 Warm Lake	0	0	2,954	592	0	0
Boise National Forest MA 20 Upper Johnson Creek	0	192	2,518	0	0	0
Payette National Forest MA 12 SFSR	882	0	2,248	0	0	0
Salmon-Challis National Forest MA 24	0	0	0	0	0	1,084
Total	882	192	7,720	592	112	1,084

Source: Forest Service 1987, 2003a, 2010a

Roadless Characteristics and Wilderness Attributes

There are nine Roadless Characteristics listed in 36 CFR § 294.22 that need to be considered for IRA analysis. These include:

(1) High quality or undisturbed soil, water, and air;

(2) Sources of public drinking water;

(3) Diversity of plant and animal communities;

(4) Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land;

(5) Primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation;

(6) Reference landscapes;

(7) Natural appearing landscapes with high scenic quality;

(8) Traditional cultural properties and sacred sites; and

(9) Other locally identified unique characteristics.

In addition, FSH 1909.12, 72.1 discusses the five wilderness attributes identified in the Wilderness Act of 1964. These five wilderness attributes are used to describe the existing conditions in the IRAs and the lands contiguous to unroaded areas (FSH 1909.12-2015 (72.1)). These include:

- Natural: The extent to which long-term ecological processes are intact and operating.
- Undeveloped: The degree to which the impacts documented in natural integrity are apparent to most visitors.
- Outstanding opportunities for solitude or primitive unconfined recreation: Solitude is a personal, subjective value defined as the isolation from sights, sounds, and presence of others and from developments and evidence of humans. Primitive recreation is characterized by meeting nature on its own terms, without comfort and convenience of facilities.
- Special Feature and values: Unique ecological, geographical, scenic, and historical features of an area.
- Manageability: The ability to manage an area for wilderness consideration and maintain wilderness attributes.

An in-depth description of the condition of each of the roadless areas in the forest and the condition and character of each of the areas is described in the FEIS for the Idaho Final Roadless Rule (Forest Service 2008b). For each IRA that occurs within or is intersected by the analysis area, the Roadless Characteristics and Wilderness Attributes are summarized below.

Bernard Roadless Area

The extreme northern portion of Bernard IRA occurs within the analysis area (**Figure 3.23-3**). This area is accessed from the Warm Lake Highway (Forest Road 22), via State Highways 21 or 55. Elevations range from about 6,000 feet along the Deadwood River to 8,203 feet atop Bernard Mountain. The southern portion of the area has characteristic moderately steep slopes, while the northern portion is dominated by glacial trough lands. Moderate to dense stands of Douglas-fir exist at the lower elevations, and stands of Engelmann spruce, lodgepole pine, and subalpine fir are found at the higher elevations.

Overall, the area is marked with steep forested slopes that give way to open alpine meadows and scattered alpine timber stands. Scenic views of the Deadwood River Canyon, Deadwood Reservoir, and the Sawtooth Mountains can be seen from ridge tops. Notable landmarks include Pilgrim Mountain (8,196 feet), and Bernard Mountain (8,203 feet).

Lands Contiguous to the Roadless Areas

This IRA includes 306 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air

quality within the IRA as a whole is primarily affected by wildfire and prescribed fire occurring outside the IRA.

Sources of public drinking water - This IRA does not supply any municipal drinking water.

Diversity of plant and animal communities – The northern portion of the Bernard IRA is dominated by glacial trough lands with moderate to dense stands of Douglas-fir at the lower elevations, and stands of Engelmann spruce, lodgepole pine, and subalpine fir found at the higher elevations. Overall, the area is marked with steep forested slopes that give way to open alpine meadows and scattered alpine timber stands.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Bernard IRA include wolverine, fisher, bald eagle, mountain quail, American three-toed woodpecker, black-backed woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area with increasing activity occurring since the augmentation program in the 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Upper Sulphur Creek and its tributaries lie within the northern portion of the roadless area. A tributary from the north supports westslope cutthroat trout. Sulphur Creek is a tributary to the Middle Fork Salmon River that supports westslope cutthroat trout and spring/summer Chinook and steelhead and is critical habitat for spring/summer Chinook salmon. The area encompasses portions of other streams in the Johnson Creek drainage that may also provide spawning and/or rearing habitat for spring/summer Chinook salmon, steelhead, and bull trout. The entire roadless area lies within an area designated as critical habitat for spring/summer Chinook salmon.

The Bernard IRA includes existing suitable habitat for Canada lynx and suitable habitat for the wolverine. Habitat also occurs for the fisher, bald eagle, American three-toed woodpecker, black-backed woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

There are populations of and habitat for Idaho Douglasia (*Douglasia idahoensis*) and Shasta sedge (*Carex straminiformis*), which are Region 4 sensitive plant species, and whitebark pine (*Pinus albicaulis*), which is listed as a federally threatened species.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – Because of the proximity of roads within the northern portion of the Bernard IRA that is in the analysis area, recreation opportunities are primarily of a roaded character, as reflected in the area's ROS classifications which in the summer are roaded modified with some semi-primitive non-motorized opportunities. In the winter, it is semi-primitive motorized.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance of the IRA is intact, and the scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: There is approximately 0.1 mile of NFS road in the IRA and historic mining sites have been located along the Deadwood River. There are 21 mining claims in the IRA.

Opportunities for Solitude and Primitive Recreation: When considered as part of the adjacent FCRNRW, the opportunities for solitude and primitive recreation are plentiful. The steep and rugged terrain provides challenges to cross-country travel.

Special Features: A segment of the Deadwood River lies adjacent to the western boundary. This river segment is eligible for Wild and Scenic River designation with a recreational classification. An estimated 500 acres of the river corridor occur within the IRA.

Manageability and Boundaries: The Bernard IRA has some very complex and irregular boundaries due to the long exclusion of the road along Sulphur Creek.

Black Lake Roadless Area

The entire Black Lake IRA occurs within the analysis area (Figure 3.23-3) and lies between the Thunder Mountain and Trapper Creek Roads (Forest Roads 440 and 440A) and adjoins the FCRNRW. The area is accessed from the Thunder Mountain Road, off the Johnson Creek Road (Forest Road 413) north of Landmark. The area is also accessed by the Summit Trail (068).

Elevations range from about 7,000 feet near the Thunder Mountain Road to 9,169 feet at Pistol Rock. The area is underlain by Cretaceous granitics of the Idaho Batholith. Steep-sided, unshaped glacial valleys are vegetated with Engelmann spruce, subalpine fir, and lodgepole pine in the higher country and Douglas fir at the lower elevations. Generally, the Black Lake area has high-elevation U-shaped glacial valleys and cirque basin topography. Prominent landmarks include Pistol Rock and Black Lake.

Lands Contiguous to the Roadless Areas

This IRA includes 793 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality as a whole is primarily affected by wildfire and prescribed fire occurring outside the IRA.

Sources of public drinking water - This IRA does not supply any municipal drinking water.

Diversity of plant and animal communities – The area consists primarily of steep-sided, unshaped glacial valleys that are vegetated with Engelmann spruce, subalpine fir, and lodgepole pine at the higher elevations and Douglas-fir at the lower elevations.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Black Lake IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, American three-toed woodpecker, black-backed woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area, with increasing activity occurring since the augmentation program in the 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Trapper and Riordan Creeks support bull trout. As the headwaters of Riordan Creek, Black Lake may also support bull trout. The entire roadless area is within area designated as critical habitat for spring/summer Chinook salmon. Spawning and rearing habitat exists for Chinook salmon and bull trout. There is an estimated 3.1 miles of stream with bull trout spawning and rearing habitat. Bull trout, Chinook summer salmon, and steelhead habitat overlaps this roadless area.

The Black Lake IRA includes existing suitable habitat for Canada lynx and suitable habitat for the wolverine, including denning habitat. Habitat also occurs for bighorn sheep, fisher, bald eagle, American three-toed woodpecker, black-backed woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

No federally endangered or Region 4 sensitive plant species are known to occur in the area. The whitebark pine, a federally threatened species, occurs in the Black Lake IRA. There have been few plant surveys conducted in the area in recent years, particularly for whitebark pine. There are no inventoried locations of noxious weeds within the Black Lake IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – Because of the proximity of roads and the small size of the Black Lake IRA, primitive recreation opportunities are limited, as reflected in the area's ROS classifications which include roaded modified and semi-primitive non-motorized in summer and semi-primitive motorized in winter.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance of the area has been affected in some locations by historic mining activity. However, overall, the area generally retains its natural appearance, and the scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: There is approximately 0.1 mile of NFS road in the IRA and historic mining sites have been located along the Deadwood River. There are 21 mining claims in the IRA.

Opportunities for Solitude and Primitive Recreation: When considered as part of the adjacent FCRNRW, the opportunities for solitude and primitive recreation are plentiful. The steep and rugged terrain provides challenges to cross-country travel.

Special Features: About 100 acres of the 1,290-acre Chilcoot Peak RNA Area lie within this IRA.

Manageability and Boundaries: The Black Lake IRA is less than 5,000 acres.

Burnt Log Roadless Area

The entire Burnt Log IRA occurs within the analysis area (**Figure 3.23-3**) and lies about one mile north of Landmark. The area is accessed by the Horn Creek and Burnt Log Roads (Forest Roads 414 and 447), via the Warm Lake-Stanley Road (Forest Road 579). The area is also accessed by the McClure (089), Burnt Log (123), and Pistol Creek (087) Trails. The area has a very irregular shape, with long fingers and a narrow section adjoining the FCRNRW.

Elevations range from about 5,400 feet at the mouth of Burnt Log Creek to about 9,000 feet near Chilcoot Peak. In the lower portion of the Burnt Log Creek drainage, flat to gently rolling terrain drops off steeply into Johnson Creek. The area is dominated by lodgepole pine and subalpine fir, though stands of ponderosa pine and Douglas-fir are found on lower, steep slopes. Overall, the Burnt Log Roadless Area is marked by flat ridge-tops and deep, steep V-shaped drainages.

Lands Contiguous to the Roadless Areas

This IRA includes 1,087 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air

quality within the IRA as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area.

Sources of public drinking water - This IRA does not supply any municipal drinking water.

Diversity of plant and animal communities – In the lower portion of the Burnt Log Creek drainage, flat to gently rolling terrain drops off steeply into Johnson Creek. The area is dominated by lodgepole pine and subalpine fir, though stands of ponderosa pine and Douglas-fir are found on lower, steep slopes.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Burnt Log IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area, with increasing activity occurring since the augmentation program in the 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Peanut Creek, a tributary to Burnt Log Creek, supports westslope cutthroat trout. Burnt Log Creek supports westslope cutthroat trout and bull trout populations and is used as spawning and rearing habitat by listed spring/summer Chinook salmon and steelhead. The roadless area encompasses portions of other streams in the Johnson Creek drainage that may also provide spawning and/or rearing habitat for listed spring/summer Chinook salmon, steelhead, bull trout, and cutthroat trout. The entire roadless area is within an area designated as critical habitat for spring/summer Chinook salmon. An estimated 15.7 miles of stream are bull trout spawning and rearing habitat.

The Burnt Log IRA includes existing suitable habitat for Canada lynx and suitable habitat for the wolverine, including denning habitat. Much of the Burnt Log IRA is relatively undisturbed that provides valuable habitat for wolverines and potentially Canada lynx. Habitat also occurs for bighorn sheep, fisher, bald eagle, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

There are populations of and habitat for Blandow's helodium, which is a Region 4 sensitive plant species and whitebark pine, which is listed as a federally threatened species within the IRA. There have been few plant surveys conducted in the area in recent years, particularly for whitebark pine. There are no inventoried locations of noxious weeds within the Burnt Log IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – Due to the proximity of roads and irregularity of the Burnt Log IRA boundaries, recreation opportunities are limited, as reflected in the area's ROS classifications which include roaded modified with semi-primitive non-motorized in summer and semi-primitive motorized in winter.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance of the IRA is intact, and the scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: The natural integrity and appearance of the Burnt Log IRA is generally intact. There are short segments of three different forest roads within the roadless area, totaling 0.6 mile.

Opportunities for Solitude and Primitive Recreation: The area is fairly large, yet the extremely irregular and complex shape limits the opportunities for solitude and primitive recreation. As a result, many portions of the IRA are less than one mile wide, while the widest portion is less than 4 miles in width. Opportunities for solitude exist due to the complex and varied terrain, while the convoluted shape restricts opportunities for challenge or primitive recreation. A very narrow segment of the area is contiguous to the FCRNRW.

Special Features: About 700 acres of the 1,290-acre Chilcoot Peak RNA Area lies within this roadless area. A segment of Burnt Log Creek bisects the roadless area and is eligible for WSR designation. An estimated 10.5 miles of the river and 3,100 acres of the river corridor occur within the roadless area. This roadless area also supports a small population of mountain goats. Chilcoot Creek and nearby Chilcoot Lake are areas of special recreational interest.

Manageability and Boundaries: The Burnt Log IRA has very complex irregular boundaries.

Caton Lake Roadless Area

The western portion of the Caton Lake IRA occurs within the analysis area (**Figure 3.23-3**) and the South Fork Salmon River, East Fork South Fork Salmon River, Johnson Creek, and Warm Lake Roads bound the Caton Lake IRA. Several trails enter the area, but travel in much of the area is restricted by the vegetation and rugged topography.

The area rises steeply out of three major canyons through timberlands and meadows to high, glaciated granite crests. Soils derive from granitic parent materials of the Idaho Batholith and are mostly light-colored, coarse-textured, and rocky. Elevations range widely from 3,663 to 9,195 feet. Indian Ridge, Caton Lake, Log Mountain, and Thunderbolt Mountain are prominent scenic landmarks.

Lands Contiguous to the Roadless Areas

This IRA includes 989 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – Lands at lower elevations within the IRA are steep and strongly dissected by streams, with brush fields and moderate to dense stands of ponderosa pine, Douglas-fir, and western larch. Higher elevation lands are U-shaped glacial valleys with steep side slopes and gently sloping alluvial bottoms, adjacent to high peaks, rocky ridges, and cirque basins. Lodgepole pine and subalpine fir are the dominant tree species. Ground cover at the lower elevations includes pinegrass, Idaho fescue, ceanothus, bluebunch wheatgrass, snowberry, ninebark, serviceberry, elk sedge, tall huckleberry, meadow rue, thimbleberry, mountain maple, buffaloberry, queencup, and spirea. Higher-elevation ground cover includes elk sedge, low huckleberry, beargrass, and woodrush.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Caton Lake IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has also been reported in the Caton Lake IRA.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - The roadless area encompasses tributaries of the South Fork Salmon River (Fourmile Creek, Camp Creek, Phoebe Creek, Indian Creek), East Fork South Fork Salmon River (Caton Creek), and Johnson Creek. These tributaries provide or may potentially provide spawning and/or rearing habitat for spring/summer Chinook salmon, steelhead trout, and bull trout; and Region 4 sensitive westslope cutthroat trout. The entire Caton Lake IRA within the analysis area lies within designated critical habitat for spring/summer Chinook salmon. Other species within the Caton Lake IRA include resident redband rainbow trout, mountain whitefish, suckers, and sculpin.

The Caton Lake IRA includes existing suitable habitat for Canada lynx, modeled suitable habitat for the NIDGS, and suitable habitat for the wolverine, including denning habitat. Habitat also occurs for bighorn sheep, fisher, bald eagle, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

There are populations of and habitat for Blandow's helodium (a Region 4 sensitive plant species) and whitebark pine in the Caton Lake IRA. There are no inventoried locations of noxious weeds within the Caton Lake IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The southern and eastern portion of the Caton IRA is classified in summer as predominantly semi-primitive non-motorized with some semi-primitive motorized and semi-primitive motorized in winter. The IRA provides many opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type. Due to its large size, rugged terrain, and limited access, there is ample opportunity for solitude and primitive recreation.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance of the IRA is high, although appearance has been changed due to past wildfires. The scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: The natural integrity is generally high, as this is a large area with few effects from past development. The natural appearance for this area is high, although appearance has been changed by a number of large wildfires in the past. There are an estimated 1.25 miles of unauthorized road within the IRA boundary.

Opportunities for Solitude and Primitive Recreation: Due to its large size, rugged terrain, and limited access, this area has a high opportunity for solitude and primitive recreation. Steep, rugged mountains characterize the area. Roads access the edges and several trails access portions of the interior. Much of the area is open to motorized travel on designated trails.

Special Features: Scenic Caton Lake lies in the heart of the IRA and the Phoebe Meadows RNA (1,100 acres) also occurs within the IRA. Approximately 1,100 acres of land the South Fork Salmon River are considered eligible for inclusion in the Wild and Scenic River System.

Manageability and Boundaries: The Caton Lake IRA is relatively intact with defined boundaries.

Horse Heaven Roadless Area

The entire Horse Heaven IRA occurs within the analysis area (**Figure 3.23-3**) and lies southeast of Yellow Pine, between the East Fork South Fork Salmon River, Johnson Creek, and the old Thunder Mountain Roads. Access is from the Johnson Creek, South Fork Salmon River, East Fork South Fork Salmon River, old Thunder Mountain Roads, and several trails. The Stibnite mining area adjoins the eastern boundary.

Topography is generally moderate except for the canyons whose streams follow steep gradients. Soils derive from Idaho Batholith granitics and are mostly light-colored, coarse-textured, and rocky. Elevations range from about 4,700 feet near Yellow Pine to 7,722 feet along Antimony Ridge. Antimony Ridge is the prominent landscape feature. Engelmann spruce, Douglas-fir, lodgepole pine, subalpine fir and, to a lesser extent, ponderosa pine comprise the bulk of the timber stands. Common ground cover includes elk sedge, tall huckleberry, ninebark, pinegrass, and thimbleberry.

Lands Contiguous to the Roadless Areas

This IRA does not include any contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area. However, there are surrounding and adjacent roads and permitted water transmission lines in the IRA.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – Engelmann spruce, Douglas-fir, lodgepole pine, subalpine fir and, to a lesser extent, ponderosa pine comprise the bulk of the timber stands. Common ground cover includes elk sedge, tall huckleberry, ninebark, pinegrass, and thimbleberry.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - The Horse Heaven IRA encompasses tributaries of the East Fork South Fork Salmon River (No Mans Creek, Bishop Creek, and Pepper Creek) and Johnson Creek. These tributaries provide or may potentially provide spawning and/or rearing habitat for spring/summer Chinook salmon, steelhead trout, and bull trout; and Region 4 sensitive westslope cutthroat trout. The entire area lies within designated critical habitat for spring/summer Chinook salmon. Other species within the area include resident rainbow trout, mountain whitefish, suckers, and sculpin.

The Horse Heaven IRA includes suitable habitat for Canada lynx and the wolverine, including denning habitat and travel corridors. Habitat also occurs for bighorn sheep, fisher, bald eagle, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk, including winter range, and mule deer, which are both species of special interest.

No federally endangered or Region 4 sensitive plant species are known to occur in the IRA, although whitebark pine does occurs in the IRA. There have been few plant surveys conducted in the area in recent years, particularly for whitebark pine. There are no inventoried locations of noxious weeds within the Horse Heaven IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The Horse Heaven IRA provides ample opportunity for semi-primitive activities as it is predominately classified in summer as semi-primitive non-motorized with areas of roaded modified and semi-primitive motorized in winter.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – Although there are existing roads and evidence of past activities adjacent to the IRA, visitors are unaffected by human developments and the natural appearance is moderately high. The scenic quality is considered moderate.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: Surrounding roads, cherry-stem roads along the western boundary, a telephone corridor, and scattered mining claims detract from the natural integrity in some portions of the area. There is an estimated 0.2 mile of unauthorized road within the boundary. Overall, however, visitors are unaffected by human developments, and the natural appearance is moderately high.

Opportunities for Solitude and Primitive Recreation: The opportunity for solitude is high because of limited recreation use and remote location. Primitive recreation opportunities are moderate. Challenging experiences include trail bike riding and big game hunting. Roads encircle the area, but no roads and only a few trails access the interior. The area is adjacent to the community of Yellow Pine.

Special Features: An elk security area lies in the north end of the IRA.

Manageability and Boundaries: Mining development inclusions complicate managing the Horse Heaven IRA.

Meadow Creek Roadless Area

The entire Meadow Creek IRA occurs within the analysis area (**Figure 3.23-3**) and lies southeast of Yellow Pine, between the East Fork South Fork Salmon River, Johnson Creek, and the old Thunder Mountain Roads. Access is from the roads and several trails. The FCRNRW adjoins the southeastern boundary, and the Stibnite mining area adjoins the northeastern boundary.

Topography is generally moderate except for the canyons whose streams follow steep gradients. Soils derive from Idaho Batholith granitics and are mostly light-colored, coarse-textured, and rocky. Elevations range from 5,200 near Johnson Creek to 8,863 feet at the Meadow Creek fire lookout. Prominent features include Riordan Lake, Meadow Creek, and Meadow Peak. Engelmann spruce, Douglas-fir, lodgepole pine and, to a lesser extent, ponderosa pine comprise the bulk of the timber stands. Common ground cover includes elk sedge, tall huckleberry, ninebark, pinegrass, and thimbleberry.

Lands Contiguous to the Roadless Areas

This IRA does not include any contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area. However, there are an estimated 4.2 miles of unauthorized road and 3.4 miles of forest road within the IRA.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – Elevations in the Meadow Creek IRA range from 5,200 near Johnson Creek to 8,863 feet at the Meadow Creek fire lookout. Prominent features include Riordan Lake, Meadow Creek, and Meadow Peak. Engelmann spruce, Douglas-fir, lodgepole pine and, to a lesser extent, ponderosa pine comprises the bulk of the timber stands. Common ground cover includes elk sedge, tall huckleberry, ninebark, pinegrass, and thimbleberry.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Meadow Creek IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area, with increasing activity occurring since the re-introduction program in the mid1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Within the Meadow Creek IRA, tributaries of the East Fork South Fork Salmon River (Meadow Creek) and Johnson Creek (Riordan Creek, Bear Creek, and Trapper Creek) provide or may potentially provide spawning or rearing habitat for spring/summer Chinook salmon, steelhead, and bull trout; and Region 4 sensitive westslope cutthroat trout. The entire area lies within designated critical habitat for spring/summer Chinook salmon. Other species within the Meadow Creek IRA include resident rainbow trout, mountain whitefish, suckers, and sculpin. Introduced arctic grayling and golden trout are stocked in Meadow Lake.

The Meadow Creek IRA includes suitable habitat for Canada lynx and wolverine, including denning habitat and travel corridors. Habitat also occurs for bighorn sheep, fisher, bald eagle, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky

grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

There are populations of and habitat for Borsch's stonecrop (*Sedum borschii*), a PNF Forest Watch Species and whitebark pine in the Meadow Creek IRA. There have been few plant surveys conducted in the area in recent years, particularly for whitebark pine. There are no inventoried locations of noxious weeds within the Meadow Creek IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The Meadow Creek IRA is classified in summer as predominantly semi-primitive non-motorized and semi-primitive motorized with areas of roaded natural and roaded modified along its edges. It is classified as semi-primitive motorized in winter. The IRA provides many opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type. There are opportunities for solitude near Riordan Lake.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – Although there are intruding roads, a telephone corridor, and scattered mining claims in some portions of the IRA, visitors are unaffected by human developments and the natural appearance is moderately high. The scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: Surrounding and intruding roads, a telephone corridor, and scattered mining claims detract from the natural integrity in some portions of the IRA. There are an estimated 4.2 miles of unauthorized road and 3.4 miles of forest road within the boundary. Overall, however, visitors are unaffected by human developments, and the natural appearance is moderately high.

Opportunities for Solitude and Primitive Recreation: The opportunity for solitude is high because of limited recreation use and remote location. Primitive recreation opportunities are moderate. Opportunities for solitude are good around Riordan Lake, which is sheltered by extensive vegetation and small draws. Challenging experiences include trail bike riding and big game hunting. Roads encircle the area, but no roads and only a few trails access the interior.

Special Features: Riordan Lake is a special feature of the area. Meadow Creek fire lookout lies within the IRA. About 100 acres are within an eligible WSR corridor.

Manageability and Boundaries: Portions of the Meadow Creek IRA have easily defined boundaries.

Needles Roadless Area

Only the extreme southern portion of the Needles Roadless Area occurs within the analysis area (**Figure 3.23-3**) and this IRA lies between Long Valley in the west and the South Fork Salmon River in the east, and between the Lick Creek Road (Forest Road 48) in the north and the Warm Lake Road (Forest Highway 22) in the south. Access is by the surrounding roads and by trail systems into most of the major drainages; however, some places can only be reached by cross-country travel.

Soils are derived from granites of the Idaho Batholith. In general, they are light-colored, coarse-textured, and rocky. Elevations range from 3,650 feet to over 9,000 feet. Lands at lower elevations are steep and strongly dissected by streams, with brush fields and moderate to dense stands of ponderosa pine and Douglas-fir. Higher elevation lands are U-shaped glacial valleys with steep side slopes and gently sloping alluvial bottoms, adjacent to high peaks, rocky ridges, and cirque basins. Lodgepole pine and subalpine fir are the dominant tree species. Ground cover varies from ninebark, thimbleberry, currants, grouse whortleberry, and pinegrass in lower elevations to sparse clumps of elk sedge in the higher elevations.

Lands Contiguous to the Roadless Areas

This IRA includes 2,327 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are generally not impacted by sediment or contaminants associated with road prisms or road use, although there are an estimated 30.2 miles of unauthorized road and 2.7 miles of forest road within the IRA. Air quality within the area as a whole is primarily affected by wildfires occurring outside the area.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – Lands at lower elevations are steep and strongly dissected by streams, with brush fields and moderate to dense stands of ponderosa pine and Douglas-fir. Higher elevation lands are U-shaped glacial valleys with steep side slopes and gently sloping alluvial bottoms, adjacent to high peaks, rocky ridges, and cirque basins. Lodgepole pine and subalpine fir are the dominant tree species. Ground cover varies from ninebark, thimbleberry, currants, grouse whortleberry, and pinegrass in lower elevations to sparse clumps of elk sedge in the higher elevations.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Needles IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has also been reported in the Needles IRA.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - This area contains streams important to anadromous fish, as well as streams that support only resident fish. Those streams supporting anadromous fish are considered critical habitat for spring/summer Chinook salmon. Spring/summer Chinook salmon and steelhead trout are found in some area streams that drain into the South Fork Salmon River. These streams provide important spawning and rearing habitat. Threatened bull trout are in the South Fork Salmon River and native westslope cutthroat trout and redband rainbow trout are present. Brook trout and other introduced fish species are also found in some area streams.

The Needles IRA includes suitable habitat for Canada lynx, modeled suitable habitat for the NIDGS, and suitable habitat for the wolverine. Habitat also occurs for bighorn sheep, fisher, bald eagle (migrate along the South Fork Salmon River), white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest. Big game winter range occurs along the South Fork Salmon River.

There are populations of and habitat for Giant helleborine orchid (*Epipactis gigantea*), Kruckeberg's sword-fern (*Polystichum kruckebergii),* Sacajawea's bitterroot (*Lewisia sacajaweana*), and Sierra sanicle (*Sanicula graveolens),* Region 4 sensitive plant species, and whitebark pine within the IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The southern portion of the Needles IRA within the analysis area is classified in summer as semi-primitive non-motorized and semi-primitive motorized with areas roaded modified along its edges. It is classified as semi-primitive motorized and roaded modified in winter. The IRA provides some opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type. The presence of the Warm Lake Road on the south as well as many existing dirt roads in this portion of the IRA limits its ability to provide solitude or primitive experiences.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance of this IRA is high, although past wildfires have changed the appearance. The scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: The natural integrity is generally high, as this is a large area with few effects from past development. The natural appearance for this area is high, although appearance has

been recently changed past wildfires. There are an estimated 30.2 miles of unauthorized road and 2.7 miles of forest road within the IRA.

Opportunities for Solitude and Primitive Recreation: The IRA has high opportunities for solitude and primitive recreation due to its substantial size, rugged topography, and limited access. Although opportunities are somewhat limited in portions of the area adjacent to heavily used access roads and trails, much of the area may be reached only by steep trails or cross-country travel. The IRA's rugged topography also provides excellent and challenging hiking, horseback riding, rock climbing, and backcountry skiing.

Special Features: Jughandle Mountain, Nick Peak, and the Needles are a few of the scenic landmarks within the IRA. The 1,000-acre Needles RNA lies in the southern portion of the roadless area. About 2,700 acres adjacent to the South Fork Salmon River is eligible for WSR designation.

Manageability and Boundaries: The Needles IRA has some irregular boundaries.

Peace Rock Roadless Area

The extreme northern portion of the Peace Rock Roadless Area occurs within the analysis area (**Figure 3.23-3**). This IRA is accessed off the Banks-Lowman Highway (Forest Highway 17), the Scott Mountain Road (Forest Road 555), and the Middle Fork Payette River Road (Forest Road 698), via State Highways 55 or 21. The area is also accessed by several trails, including the Switchback, Middle Fork Payette, Rattlesnake, Lightning Ridge, Silver Creek Summit, Peace Creek, and Tranquil Basin Trails.

Elevations range from about 3,600 feet along the Middle Fork Payette River to 8,696 feet at Rice Peak. The dominant landforms are steep, highly dissected slopes with sharp ridge tops and v-shaped drainages. At lower elevations, scattered to dense stands of Douglas-fir and ponderosa pine predominate, while in higher areas, moderate to dense stands of subalpine fir and scattered stands of lodgepole pine prevail. Prominent features include Scott Mountain, Peace Rock, Wild Buck Peak, Lightning Creek Rock, Silver Creek Summit, Rice Peak, and several hot springs along the Middle Fork Payette River.

Lands Contiguous to the Roadless Areas

This IRA includes 1,363 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the area as a whole is primarily affected by wildfire and prescribed fire occurring outside the IRA.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – The dominant landforms in the Peace Rock IRA are steep, highly dissected slopes with sharp ridge tops and V-shaped drainages. At lower elevations,

scattered to dense stands of Douglas-fir and ponderosa pine predominate, while in higher areas, moderate to dense stands of subalpine fir and scattered stands of lodgepole pine prevail.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Peace Rock IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, whiteheaded woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, boreal owl, mountain quail, great gray owl, northern goshawk, pileated woodpecker, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area with increasing activity occurring since the augmentation program in the 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - The Peace Rock IRA within the analysis area contains portions of two major drainages that have important fisheries populations and habitats; South Fork Salmon River and Johnson Creek. The mainstem South Fork within and adjacent to the Peace Rock IRA provides spawning and rearing habitat for bull trout as well as westslope cutthroat trout, and spring/summer Chinook salmon and steelhead. Most streams in the South Fork and Johnson Creek drainages may also provide spawning and/or rearing habitat for spring/summer Chinook salmon, steelhead, and bull trout. Portions of the Peace Rock IRA within the South Fork and Johnson Creek drainages are designated as critical habitat for spring/summer Chinook salmon.

The Peace Rock IRA includes suitable habitat for Canada lynx, modeled suitable habitat for the NIDGS, and suitable habitat for the wolverine. Habitat also occurs for the bighorn sheep, fisher, bald eagle, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, boreal owl, mountain quail, great gray owl, northern goshawk, pileated woodpecker, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

Within the IRA, there are populations of and habitat for Idaho Douglasia (*Douglasia idahoensis*), Giant helleborine orchid (*Epipactis gigantea*), least moonwort (*Botrychium simplex*), Shasta sedge (*Carex straminiformis*), Sacajawea's bitterroot (*Lewisia sacajaweana*), and swamp willow-weed (*Epilobium palustre*), Region 4 sensitive plant species or Forest Watch Species, and whitebark pine.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The northern portion of the Peace Rock IRA is classified in summer as semi-primitive non-motorized, semi-primitive motorized, roaded modified, and roaded natural and semi-primitive motorized in winter. The IRA provides many opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type. The area supports a wide range of recreation opportunities.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The apparent naturalness of the IRA has generally been unaffected, with the imprint of man's work substantially unnoticeable. The scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: The apparent naturalness and natural integrity of the area have generally been unaffected, with the imprint of man's work substantially unnoticeable. The area generally appears to have been affected primarily by the forces of nature. There are five short forest road segments that are just within the roadless area boundaries totaling 2.28 miles. Most are in the Silver Creek vicinity.

Opportunities for Solitude and Primitive Recreation: The area's rugged terrain provides outstanding opportunities for primitive and unconfined recreation. Opportunities are extremely good for high-quality backpacking, remote hiking, and hunting. Opportunities for solitude are plentiful due to the large area, rugged and steep terrain, and numerous drainages.

Special Features: The jagged, rocky knobs of Peace Rock and Silver Creek Summit are notable distinct features within the IRA. Scattered high-elevation glacial basins are special features that contrast with the dry steep terrain of most of the area. The Long Fork Silver Creek with its steep canyon walls is also a special feature of the area. Rice Peak fire lookout is managed for recreational rental use.

This IRA contains segments of three different rivers that have been identified as eligible WSR: Middle Fork Payette River, South Fork Payette River, and Deadwood River. The segments total an estimated 5,800 acres and 16.2 river miles within the IRA.

Manageability and Boundaries: The Peace Rock IRA has very complex and irregular boundaries.

Reeves Creek Roadless Area

The entire Reeves Creek IRA occurs within the analysis area (**Figure 3.23-3**) and lies northeast of Warm Lake within the South Fork Salmon River and Johnson Creek drainages. The area is accessed by the Johnson Creek Road from Landmark (Forest Road 413) via the Warm Lake Highway (Forest Road 22), and by roads leading from the South Fork Salmon River Road (Forest Road 474).

Elevations range from 5,280 feet in Paradise Valley to an 8,241-foot unnamed mountaintop. Slopes are moderately steep to steep and stream-cut, while many peaks and ridges have been glacially scoured and are separated by U-shaped glacial valleys. The lower slopes contain ponderosa pine and Douglas-fir, while lodgepole pine and subalpine fir are the predominant cover types in the high country.

Overall, the Reeves Creek IRA is characterized as a forested mountain ridge broken by complex drainage patterns created by creeks and drainages flowing to Johnson Creek to the east, and to the South Fork Salmon River to the west.

Lands Contiguous to the Roadless Areas

This IRA includes 788 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area.

Sources of public drinking water - This IRA does not supply any municipal drinking water.

Diversity of plant and animal communities – The lower slopes within the IRA contain ponderosa pine and Douglas-fir, while lodgepole pine and subalpine fir are the predominant tree species at the higher elevations. Overall, the Reeves Creek Roadless Area is characterized as a forested mountain ridge broken by complex drainage patterns created by creeks and drainages flowing to Johnson Creek to the east, and to the South Fork Salmon River to the west.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Reeves Creek IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl (especially at lower elevations on west and south facing slopes), pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area, with increasing activity occurring since the augmentation program in the 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Upper Cabin Creek supports bull trout populations. While lower portions of Cabin Creek, Knox Creek, and Reeves Creek provide spawning and rearing habitat for spring/summer Chinook salmon, and likely for steelhead, whereas the upper portions that are within the Reeves Creek IRA do not. The Reeves Creek IRA encompasses portions of streams on both South Fork Salmon River and Johnson Creek drainages that do or potentially may provide spawning and/or rearing habitat for federally listed fish species. The entire roadless area is within an area designated as critical habitat for spring/summer Chinook salmon. An estimated 3.1 miles of streams contain bull trout spawning and rearing habitat.

The Reeves Creek IRA includes suitable habitat for Canada lynx, modeled suitable habitat for the NIDGS, and suitable habitat for the wolverine, including denning habitat. Habitat also occurs for bighorn sheep, fisher, bald eagle, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk (including noted winter range) and mule deer, which are both species of special interest.

No federally endangered or Region 4 sensitive plant species are known to occur in the area, although the federally threatened, whitebark pine occurs in the Reeves Creek IRA. There are no inventoried locations of noxious weeds within the Reeves Creek IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The Reeves Creek IRA is classified as semi-primitive non-motorized in summer and semi-primitive motorized in winter. The IRA provides many opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance of the area is largely intact and the scenic quality of the IRA is high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the project area.

Wilderness Characteristics

Natural Integrity and Appearance: Natural integrity and appearance of the area are largely intact.

Opportunities for Solitude and Primitive Recreation: There are opportunities for solitude and primitive recreation in the area. Opportunities for solitude have been limited in some areas due to the loss of vegetative screening from past wildfires.

Special Features: There are no special features identified within the IRA.

Manageability and Boundaries: The Reeves Creek IRA has some irregular boundaries and cherry-stems roads to the east make management difficult.

Secech Roadless Area

The extreme southeast portion of Secech Roadless Area occurs within the analysis area (**Figure 3.23-3**) and is adjoined to the east by the FCRNRW and to the south by Stibnite Road. This IRA is extremely rugged, with many craggy peaks, glacial cirques, hanging valleys, and deep canyons. The soils derive from granites in the Idaho Batholith and are mainly light-colored, coarse textured, and rocky. Elevations range from 3,400 feet to over 9,200 feet.

Tree stands are dominated by lodgepole pine, Douglas-fir and ponderosa pine, with subalpine fir and whitebark pine found at higher elevations. Understory vegetation includes queencup, tall huckleberry, spirea, pinegrass, ninebark, meadowrue, buffaloberry, mountain maple, willow, thimbleberry,

serviceberry, beargrass, snowberry, bluebunch wheatgrass, Idaho fescue, and ceanothus. The area holds a high level of roadless characteristics.

Lands Contiguous to the Roadless Areas

This IRA includes 275 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are generally not impacted by sediment or contaminants associated with road prisms or road use. However, there are an estimated approximately 30 miles of unauthorized road and approximately two miles of forest road within the IRA. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – Tree stands are dominated by lodgepole pine, Douglas-fir and ponderosa pine, with subalpine fir and whitebark pine found at higher elevations. Understory vegetation includes queencup, tall huckleberry, spirea, pinegrass, ninebark, meadowrue, buffaloberry, mountain maple, willow, thimbleberry, serviceberry, beargrass, snowberry, bluebunch wheatgrass, Idaho fescue, and ceanothus.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Secesh IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - The Secesh IRA contains streams important to anadromous fish, as well as streams that support only resident fish. Those streams supporting anadromous fish are considered critical habitat for spring/summer Chinook salmon. Spring/summer Chinook salmon and steelhead are found in area streams, which provide important spawning and rearing habitat.

The Secesh IRA includes suitable habitat for Canada lynx, modeled suitable habitat for the NIDGS, and suitable habitat for the wolverine, including denning habitat and travel corridors. Habitat also occurs for bighorn sheep, fisher, bald eagle, white-headed woodpecker, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer (both species of special interest), including important winter range along the South Fork Salmon River.

No federally endangered plants occur in the Secesh IRA but Blandow's helodium, Candystick (*Allotropa virgata*), Sacajawea's bitterroot (*Lewisia sacajaweana*), short-style tofieldia (*Triantha occidentalis* ssp.

brevistyla), and Sierra sanicle (*Sanicula graveolens),* all Region 4 sensitive plant species or Forest Watch Species, occur in the Secesh IRA. Whitebark pine, a federally threatened species, occurs in the Secesh IRA. There have been few plant surveys conducted in the area in recent years, particularly for whitebark pine. There are no inventoried locations of noxious weeds within the Secesh IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The southeastern portion of the Secesh IRA that is within the analysis area is classified as predominantly semi-primitive non-motorized, with some semi-primitive motorized and roaded natural in summer and semi-primitive motorized and semi-primitive non-motorized in winter. The IRA provides ample opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The natural appearance for this area is high, although this appearance has been modified in some areas by road intrusions and recent fires. There are an estimated 32.2 miles of unauthorized road and 2.2 miles of forest road within the boundary. When visitors leave surrounding road corridors, they are not affected by human activity or developments. The scenic quality is considered high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: Although several activities have occurred along portions of the IRA boundary, the natural integrity of the area remains high. This is a large area with relatively few road corridor or other developed incursions. The natural appearance for this area is also high, although this appearance has been modified in some areas by road intrusions and past fires. There are an estimated 32.2 miles of unauthorized road and 2.2 miles of forest road within the IRA. When visitors leave surrounding road corridors, they are not affected by human activity or developments.

Opportunities for Solitude and Primitive Recreation: This area has a high opportunity for solitude and for primitive recreation because of its substantial size, rugged terrain, limited access, and the lack of large population centers nearby. The roads accessing this area pass around the outer edges and intrude in only a few places. The rugged topography and climate provide many challenging and primitive recreation opportunities.

Special Features: The Secesh River and South Fork Salmon River are eligible for WSR designation. There are 13.9 miles of the Secesh River and 10.4 miles of the South Fork Salmon River and 4,200 acres of land associated with the Secesh River and 3,600 acres of land associated with the South Fork Salmon River. Scenic landmarks include Slick Rock, Loon Peaks, and the South Fork Salmon River Canyon. Elk

winter range occurs along the East Fork South Fork Salmon River and along the South Fork Salmon River. About 2,800 acres are in RNAs in Pony Meadows and Circle End Creek.

Three potential National Natural Landmarks lie within the IRA boundaries: Slick Rock, Lick Creek Block Stream, and Rainbow Rock. There are approximately 4,300 acres of the western portion of the area that are part of the municipal watershed for the city of McCall, and an additional 700 acres in the eastern portion that are part of the Yellow Pine Water Users watershed.

Manageability and Boundaries: The Secesh IRA is relatively intact with defined boundaries.

Stony Meadows Roadless Area

Almost the entire Stony Meadows Roadless Area occurs within the analysis area (**Figure 3.23-3**). This area is accessed from Warm Lake Highway (Forest Road 22) via State Highway 55, the Clear Creek Road (Forest Road 409), and Stony Meadows Road (Forest Road 433). The area is also accessed from Tyndall Creek (107) and Alpine Creek (106) trails. Elevations range from about 5,500 feet to over 8,000 feet. Moderately steep to steep slopes are moderately dissected and are vegetated with moderate to dense stands of grand fir, lodgepole pine, and subalpine fir; and scattered stands of Douglas-fir. Curtis Lake is centrally located in this IRA.

Lands Contiguous to the Roadless Areas

This IRA includes 112 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area.

Sources of public drinking water - This IRA does not supply any municipal drinking water.

Diversity of plant and animal communities – Moderately steep to steep slopes within the IRA are moderately dissected and are vegetated with moderate to dense stands of grand fir, lodgepole pine, and subalpine fir; and scattered stands of Douglas-fir.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area, with increasing activity occurring since the augmentation program in the early 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Stony Meadow Creek in the Middle Fork Payette River drainage supports bull trout. Within the portion of the IRA that lies in the South Fork Salmon River drainage, Trail Creek, Trail Creek tributaries, and Curtis Creek and tributaries support

westslope cutthroat and bull trout. The roadless area encompasses all or portions of other streams in the South Fork Salmon River drainage that may also provide spawning and/or rearing habitat for spring/summer Chinook, steelhead, and bull trout. That portion of the roadless area that lies within the South Fork Salmon River drainage is designated as critical habitat for spring/summer Chinook salmon. An estimated 8.4 miles of streams in the area provide bull trout spawning and rearing habitat.

The Stony Meadows IRA includes existing suitable habitat for Canada lynx (federally threatened) and suitable habitat for the wolverine (federally proposed as threatened). Habitat also occurs for bighorn sheep, fisher, bald eagle, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

There are populations of and habitat for Idaho Douglasia and Sacajawea's bitterroot, Region 4 sensitive plant species, in the Stony Meadows IRA. There are no inventoried locations of noxious weeds within the roadless area.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The Stony Meadows IRA is classified as roaded natural, roaded modified, and semi-primitive non-motorized in summer and semi-primitive motorized and roaded modified in winter. The IRA provides ample opportunities for activities of semi-primitive non-motorized and semi-primitive motorized type. The presence of Warm Lake Road on one edge and FR 409 on another limits its ability to provide primitive experiences.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – The apparent naturalness of the IRA is generally intact and the scenic quality is high.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: The natural integrity and apparent naturalness of the Stony Meadows IRA are generally intact.

Opportunities for Solitude and Primitive Recreation: Opportunities for solitude and primitive recreation occur within the area. Dense vegetation and dissected terrain provide some opportunities for solitude. The irregular shape with narrow appendages and cherry stemmed road exclusions limits opportunities for primitive recreation.

Special Features: The high-elevation lakes are special landscape features. Curtis Lake is a high elevation lake of special interest.

Manageability and Boundaries: The Stony Meadows IRA has some complex and irregular boundaries.

Sugar Mountain Roadless Area

The entire Sugar Mountain Roadless Area occurs within the analysis area (**Figure 3.23-3**) and lies between the FCRNRW to the north and east, and the Profile Gap and Monumental Summit Roads (Forest Roads 340 and 412) on the west and south. These roads provide access to the edge of the area, but no interior trails exist.

Generally steep, rugged slopes typify the area. Soils derive from granitic rock of the Idaho Batholith and are mostly light-colored, coarse-textured, and rocky. Elevations range from 5,300 to 8,738 feet. Lower elevation tree species include Douglas-fir, lodgepole pine, and ponderosa pine, which then grade into spruce, subalpine fir, and whitebark pine at the higher elevations. Common lower-elevation ground cover includes pinegrass, Idaho fescue, ceanothus, bluebunch wheatgrass, snowberry, ninebark, serviceberry, tall huckleberry, mountain maple, and thimbleberry. Higher-elevation understory is mostly forbs and low shrubs, such as elk sedge, low huckleberry, and woodrush.

Lands Contiguous to the Roadless Areas

This IRA does not include any contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air – Significant exploration and some development has occurred in the past within and adjacent to this IRA. Air quality within the Project area as a whole has been affected by past activities. Approximately one mile of unauthorized road occurs within the IRA.

Sources of public drinking water - This IRA supplies a municipal drinking water source.

Diversity of plant and animal communities – Elevations in the Sugar Mountain IRA range from 5,300 to 8,738 feet. Lower elevation tree species include Douglas-fir, lodgepole pine, and ponderosa pine, which then transition into spruce, subalpine fir, and whitebark pine at the higher elevations. Common lower-elevation ground cover includes pinegrass, Idaho fescue, ceanothus, bluebunch wheatgrass, snowberry, ninebark, serviceberry, tall huckleberry, mountain maple, and thimbleberry. Higher-elevation understory is mostly forbs and low shrubs, such as elk sedge, low huckleberry, and woodrush.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Sugar Mountain IRA include wolverine, bighorn sheep, fisher, bald eagle, mountain quail, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - The Sugar Mountain IRA encompasses two tributaries of the East Fork South Fork Salmon River (Sugar Creek, Salt Creek). These tributaries provide or may potentially provide spawning and/or rearing habitat for spring/summer Chinook summer salmon and steelhead. Salt Creek probably provides rearing habitat for spring/summer Chinook salmon and/or steelhead. Salt and Sugar Creeks probably support resident populations of rainbow trout. Limited areas within the Sugar Mountain IRA may support bull trout and the entire area lies within designated critical habitat for spring/summer Chinook salmon.

The Sugar Mountain IRA includes existing suitable habitat for Canada lynx (federally threatened) and suitable habitat for the wolverine (federally proposed as threatened), including denning habitat and travel corridors. Habitat also occurs for bighorn sheep, fisher, bald eagle, Lewis's woodpecker, American three-toed woodpecker, black-backed woodpecker, dusky grouse, flammulated owl, pileated woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are both species of special interest.

No federally endangered plant species are known to occur in the area. The Borsch's stonecrop (*Sedum borschii*), a PNF Forest Watch Species and whitebark pine, a federally threatened species, occur in the Sugar Mountain IRA. There have been few plant surveys conducted in the area in recent years, particularly for whitebark pine. There are no inventoried locations of noxious weeds within this IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – The Sugar Mountain IRA is classified as semi-primitive non-motorized in summer and winter. The remoteness of this area provides ample opportunity for solitude and primitive experiences.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – Natural appearance within the IRA has been somewhat affected by past mining exploration and excavation activities, but still remains moderate to high overall. The scenic quality is considered moderate.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: Natural integrity and appearance have been somewhat affected by past mining exploration and excavation activities, but still remain moderate to high overall. There is an estimated 1.1 miles of unauthorized road within the boundary.

Opportunities for Solitude and Primitive Recreation: Opportunities for solitude and primitive recreation are high in conjunction with the Franck Church - River of No Return Wilderness. Steep, rugged, and remote, the area is seldom used. Big game hunting provides challenging experiences.

Special Features: Sugar Mountain and Missouri Ridge are prominent landmarks. A big game migration route passes near Sugar Mountain.

Manageability and Boundaries: The Sugar Mountain IRA has boundaries that may be difficult to manage due to past or future mining activity.

Whiskey Roadless Area

The entire Whiskey Roadless Area occurs within the analysis area (**Figure 3.23-3**) and adjoins the FCRNRW along the wilderness area's western boundary. The Whiskey IRA includes the headwaters of Whiskey Creek, a drainage of Johnson Creek, and lies about 6 miles south of Landmark. The area is accessed from Landmark by Whiskey Creek Road via the Warm Lake-Stanley Road (Forest Road 579). The area is also accessed by Sulphur Creek Trail (083).

Elevations range from 6,800 feet to 8,777 feet. The roadless area is generally vegetated with lodgepole pine, subalpine fir, and Engelmann spruce. Overall, the Whiskey Roadless Area is marked by low, rolling timbered hills.

Lands Contiguous to the Roadless Areas

This IRA includes 588 acres of contiguous lands.

Roadless Characteristics

High quality or undisturbed soil, water, and air - Because of its unroaded status, soil and water within the IRA are not impacted by sediment or contaminants associated with road prisms or road use. Air quality within the Project area as a whole is primarily affected by wildfire and prescribed fire occurring outside the Project area.

Sources of public drinking water - This IRA does not supply any municipal drinking water.

Diversity of plant and animal communities – The IRA is generally vegetated with lodgepole pine, subalpine fir, and Engelmann spruce. Overall, the Whiskey IRA is marked by low, rolling timbered hills.

Rare terrestrial wildlife species of concern that are known to exist, or likely exist, in the Whiskey IRA include wolverine, fisher, bighorn sheep, bald eagle, mountain quail, American three-toed woodpecker, black-backed woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog. Confirmed gray wolf activity has occurred in this roadless area with increasing activity occurring since the augmentation program in the 1990s.

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land - Sand Creek historically supported spring/summer Chinook spawning, and likely provides spring/summer Chinook and steelhead rearing

habitat. Whiskey Creek likely also provides rearing habitat for spring/summer Chinook and steelhead. These streams are tributaries to Johnson Creek, which provides spring/summer Chinook and steelhead spawning and rearing habitat outside the roadless area. The entire Whiskey IRA is within an area designated as critical habitat for spring/summer Chinook salmon. The roadless area contains an estimated 3.1 miles of streams with spring/summer Chinook or steelhead spawning and rearing habitat.

The Whiskey IRA includes suitable habitat for Canada lynx and suitable habitat for the wolverine. Habitat also occurs for the fisher, bighorn sheep, bald eagle, American three-toed woodpecker, black-backed woodpecker, boreal owl, mountain quail, great gray owl, northern goshawk, silver-haired bat, and Columbia spotted frog, all Region 4 Sensitive species. Habitat is present for Rocky Mountain elk and mule deer, which are species of special interest.

There are populations of and habitat for Shasta sedge (Carex straminiformis), a Forest Watch Species, and whitebark pine. Otherwise, there have been few plant surveys conducted in the Whiskey IRA.

Primitive, semi-primitive non-motorized, semi- primitive motorized classes of dispersed recreation – Because of the proximity of roads and the small size of the Whiskey IRA, recreation opportunities are primarily of a roaded nature, as reflected in the area's ROS classifications which include roaded modified and roaded natural, with a small area of semi-primitive non-motorized in summer and semi-primitive motorized in winter.

Reference landscapes – The IRA does not serve any research function as a reference landscape, other than as a general example of an area lacking roads.

Naturally appearing landscapes with high scenic quality – Natural appearance within the IRA is generally intact and the scenic quality is considered moderate.

Traditional cultural properties and sacred sites – Many areas across the Forest serve traditional cultural and/or sacred purposes. Specific locations associated with this are necessarily sensitive and are not disclosed in public documents. The Project has been and would continue to be reviewed by governmental representatives of Native American groups with traditional ties to the Project area.

Other locally identified unique characteristics - None are applicable within the Project area.

Wilderness Characteristics

Natural Integrity and Appearance: The natural integrity and appearance of this roadless area are generally intact.

Opportunities for Solitude and Primitive Recreation: When considered alone the Whiskey Roadless Area has limited opportunities for solitude, challenge, and primitive recreation due to the area's small size. When considered as an addition to the FCRNRW, the area would complement the current extensive opportunities for solitude and primitive recreation in the FCRNRW. Opportunities for solitude are limited in the western appendage.

Special Features: No special features identified.

Manageability and Boundaries: The Whiskey IRA has very complex and irregular boundaries.

Natural Integrity and Appearance

As described above, the natural integrity and appearance of the 13 IRAs and lands contiguous to unroaded areas (roadless expanse) are generally undisturbed from natural conditions and unaffected by human development, which is substantially unnoticeable. However, there are an estimated 32.5 miles of unauthorized roads in the IRA analysis area.

The natural appearance in the roadless expanse has been influenced by past mining activities, road intrusions, and telephone (i.e., utility) infrastructure corridors. There are designated NFS roads and numerous miles of trails that allow motorized use in the roadless expanse. During winter, there are groomed over-snow vehicle routes on roads adjacent to the boundary of the roadless expanse.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

The 13 IRAs, including the adjacent unroaded areas, provide recreation opportunities, such as camping, canoeing, cross-country skiing, fishing, hiking, hunting, picnicking, and wildlife viewing. The outstanding opportunities for solitude or primitive and unconfined recreation vary throughout the roadless expanse. Outstanding opportunities for solitude are high in areas of the roadless expanse due to the topography, vegetation, and distance to large population centers. Opportunities for solitude are good in the Meadow Creek IRA around Riordan Lake, which is sheltered by extensive vegetation and small draws. However, in the areas where the roadless expanse is adjacent to heavily used access roads and trails that allow motorized use, the outstanding opportunities for solitude are limited. Opportunities for solitude are limited in some areas due to the loss of vegetative screening from past wildfires. In areas of the roadless expanse that are narrower than 1 mile, the irregular and complex shape limits opportunities for solitude.

The topography and climate in the roadless expanse provide opportunities for primitive and challenging recreational activities. Except for motorcycle or all-terrain vehicle recreation, most existing recreation use is of a primitive type (e.g., hiking, backpacking, stock use and trail riding, big and small game hunting, and primitive recreation). Locations where the roadless expanse is narrow, and there are cherry-stemmed road exclusions, limit opportunities for primitive recreation.

The physical setting of the ROS class is defined by the absence or presence of human sights and sounds, physical size of an area, and the amount of environmental modification caused by human activity (Forest Service 1982; Johnson et al. 2005). The Recreation Specialist Report (Forest Service 2023m) discusses summer and winter ROS classes in more detail. The physical setting ROS acres in the roadless expanse during summer is 129,437 acres of the roadless expanse in the analysis area meet the semi-primitive non-motorized setting and provide visitors a high probability of getting away from the sights and sounds of other people. A total of 45,000 acres of the roadless expanse meet the semi-primitive motorized setting during summer, providing visitors with a moderate probability of getting away from sights and sounds of other people.

During winter, 140,991 acres of the roadless expanse in the analysis area meet the semi-primitive non-motorized setting and 40 acres meet the primitive setting. These areas provide visitors with a high

probability of getting away from the sights and sounds of other people. There are 11,496 acres of the roadless expanse that meet the semi-primitive motorized groomed setting and 85,244 acres that meet the semi-primitive motorized setting during winter, providing visitors with a moderate probability of getting away from sights and sounds of other people.

Special Features

In the majority of the IRAs, there are locally identified unique characteristics and values. These special features include areas valued for their scientific qualities, scenic qualities, or other notable distinct features. Another special feature of the IRAs and contiguous unroaded lands, may include the exercise of treaty rights and traditional uses as these landscapes and plant resources therein generally retain a high degree of integrity (Forest Service 2008a). Additional information regarding tribal cultural, customary, and traditional use areas is provided in **Section 3.24**.

Manageability

Manageability refers to the ability to manage an area to maintain roadless characteristics. A total of 2,723 acres in the analysis area of Needles and Secesh IRAs are recommended for wilderness in the Payette Forest Plan (Forest Service 2003a) and Boise Forest Plan (Forest Service 2010a). Areas of the roadless expanse with complex and irregular boundaries from intersecting roads or private lands and small IRA areas make it more difficult to define and administer the area to maintain roadless characteristics. In addition, boundaries for parts of IRAs in the roadless expanse are difficult to identify on the ground and difficult to administer due to their remoteness.

3.23.4.4 Research Natural Areas

The system of RNAs was established with the goal of allowing natural processes to occur without the influence of human activity. RNAs preserve natural features and plant communities for research and educational purposes and contribute to a national network of ecological areas dedicated to research, education, and the maintenance of biological diversity. These conditions are ordinarily achieved by allowing natural, physical, and biological processes to prevail without human intervention. RNAs that are representative of common ecosystems in natural conditions serve as baseline or reference areas. The two RNAs in the analysis area provide on-site and extension educational opportunities (**Table 3.23-4**).

Table 3.23-4 Research Natural Areas in the Analysis Area

RNA	Forest	Management Area	Acres[1]	Elevation in Feet
Belvidere Creek	PNF	MA 14 FCRNRW	2,920	6,200–9,273
Chilcoot Peak	BNF	MA 21 Lower Johnson Creek	1,294	7,250–8,998

Source: Forest Service 1996b, 1996c
[1] Size for each RNA is based on GIS data from the PNF and BNF.

Belvedere Creek RNA was established to preserve high elevation subalpine fir habitat types, outstanding aquatic features with associated wetland plant communities, and a unique and scenic geomorphic setting. Chilcoot Peak RNA was established to preserve diverse subalpine forest habitats, including subalpine fir, Douglas-fir, and whitebark pine habitat types.

Complete descriptions of the RNAs are found in the establishment records (Forest Service 1995, 1996a-f) and are further detailed in the SGP Special Designations Specialist Report (Forest Service 2023p). Fire is an ecosystem process within these RNAs and is consistent with the values for which they are established. No formal studies have been conducted documenting if characteristic versus uncharacteristic fire has occurred; the evidence is based on field observations and indicates primarily characteristic fire behavior.

3.24 Tribal Rights and Interests

3.24.1 Introduction

This section considers the rights and interests of federally-recognized American Indian Tribes (the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes [Tribes]) whose treaty fishing and hunting rights traditional subsistence range (or "traditional use area," meaning, geographic areas commonly used for the provision of food, clothing, shelter, spiritual, and other purposes) includes the SGP area to determine the extent that tribal members would experience adverse effects to their tribal rights and interests as a result of the SGP. The locations of the associated reservations in relation to the SGP are shown on **Figure 3.22-1**.

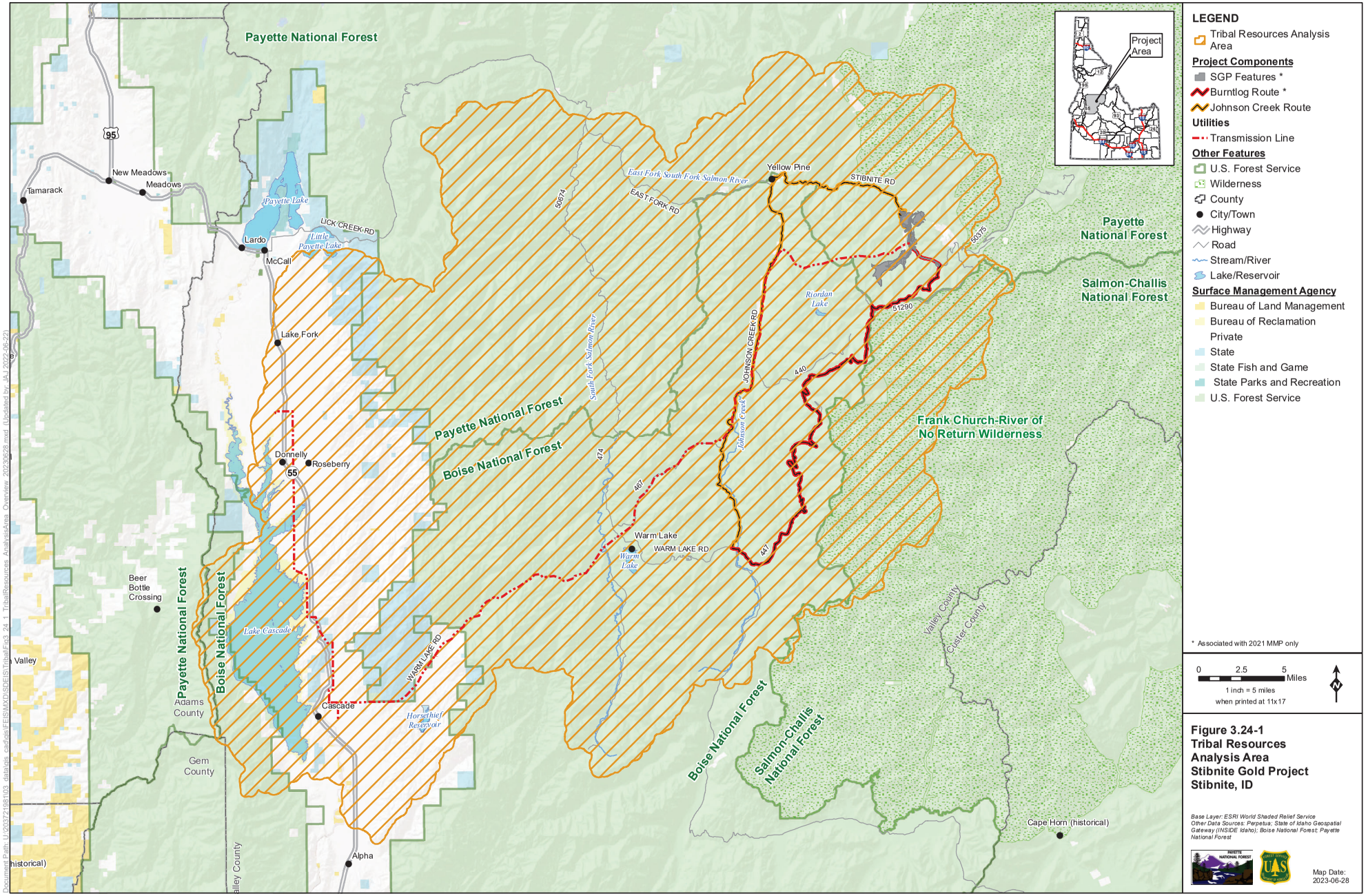
"Tribal rights" refer to rights legally accruing to a tribe by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order (EO), or agreement, and which give rise to legally enforceable remedies.

"Tribal resources" is defined as natural resources retained by, reserved by, or for Indian tribes through treaties, statutes, judicial decisions, executive order, or agreement and that are protected by a fiduciary obligation on the part of the United States and in certain instances constitute interests in real property. In this report, tribal resources include the traditional fish, wildlife, and plants of importance to ancestral and modern descendant tribes, as well as the areas, sites, or waterways that have or support such resources. Tribal resources also include sacred sites used for spiritual and religious activities, traditional cultural properties (TCPs), and cultural landscapes (CLs).

"Interests" is used herein to refer to the concerns that individual tribes assert in particular places or concerns that certain activities could affect the landscape and resources within their traditional subsistence range.

3.24.2 Tribal Rights and Interests Resources Area of Analysis

The analysis area for tribal rights and interests includes the area where effects (direct/indirect and cumulative) may be caused by the proposed activities (FSH.1909.15, 15.2a). The analysis area for tribal rights and interests is the geographic area within which the SGP may directly or indirectly impact tribal real property interests or cause alterations in the character of tribal resources and in a tribe's ability to exercise their rights for off-reservation tribal hunting, gathering, and pasturing activities, fishing in usual and accustomed places, access streams and fountains, and their ability to practice spiritual and religious activities that also are protected under federal laws (**Figure 3.24-1**). Although the tribal communities (Duck Valley Indian Reservation, Fort Hall Reservation, and Nez Perce Reservation) are located more than 100 miles from the analysis area, tribal members have long-established cultural, ceremonial, and subsistence use relationships with the analysis area and surrounding federal lands.


Payette National Forest
Boise National Forest
Salmon-Challis National Forest
Frank Church-River of No Return Wilderness
Project Area
LEGEND
Tribal Resources Analysis Area
Project Components
SGP Features *
Burntlog Route *
Johnson Creek Route
Utilities
Transmission Line
Other Features
U.S. Forest Service
Wilderness
County
City/Town
Highway
Road
Stream/River
Lake/Reservoir
Surface Management Agency
Bureau of Land Management
Bureau of Reclamation
Private
State
State Fish and Game
State Parks and Recreation
U.S. Forest Service
* Associated with 2021 MMP only
0 2.5 5 Miles
1 inch = 5 miles when printed at 11x17
N
Figure 3.24-1
Tribal Resources Analysis Area
Stibnite Gold Project
Stibnite, ID
Base Layer: ESRI World Shaded Relief Service
Other Data Sources: Perpetua; State of Idaho Geospatial Gateway (INSIDE Idaho); Boise National Forest; Payette National Forest
Map Date: 2023-06-28
Yellow Pine
Stibnite
New Meadows
Tamarack
Payette Lake
Little Payette Lake
Lardo
McCall
Lake Fork
Donnelly
Roseberry
Lake Cascade
Cascade
Warm Lake
Horsethief Reservoir
Riordan Lake
Johnson Creek
South Fork Salmon River
East Fork South Fork Salmon River
Beer Bottle Crossing
Adams County
Gem County
Valley County
Custer County
Alpha
Cape Horn (historical)
LICK CREEK RD
EAST FORK RD
STIBNITE RD
JOHNSON CREEK RD
WARM LAKE RD
55
95
51290
440
447
467
474
50674
50376

The Cascade Reservoir, Johnson Creek, Gold Fork River, Lower East Fork South Fork Salmon River (East Fork SFSR), Upper East Fork SFSR, and Upper South Fork Salmon River HUC10 watersheds would be the areas where the majority of SGP activity would take place. The Burntlog Route access road would be contained within the Johnson Creek and Upper East Fork SFSR watersheds. Because of the route's proximity to the FCRNRW, the Upper Indian Creek subwatershed (which is part of the Upper Middle Fork Salmon watershed) plus the Upper Little Pistol Creek and Upper Pistol Creek watersheds are also included in the analysis area.

3.24.3 Relevant Laws, Regulations, Policies, and Plans

The interests of the Nez Perce Tribe, the Shoshone-Bannock Tribes, and the Shoshone-Paiute Tribes go beyond spiritual, cultural, and economic to the unique legal relationship that the U.S. Government has with American Indian tribal governments (Forest Service Manual 1563.1b(1), Forest Service Manual 1563.8(b)). Federally recognized tribes are sovereign nations who work with the federal government, and its agencies, through the process of government-to-government consultation. The federal trust relationship with each tribe was recognized by, and has been addressed through, the U.S. Constitution, treaties, EOs, statutes, federal policy, tribal requirements, and court decisions. In general, these mandates protect and enhance the ability of the tribes to exercise rights and cultural practices off-reservation. Cultural interests and uses on National Forest System (NFS) lands are protected through various federal statutes.

Many of the treaties and EOs signed by the U. S. government in the mid-1800s reserved homelands for the tribes. Additionally, the treaties with the Nez Perce Tribe and Shoshone-Bannock Tribes reserved certain rights outside the established reservations, such as fishing, hunting, gathering, and pasturing, on what are now NFS land. Tribes still protect and exercise those rights throughout the analysis area.

These reserved tribal rights as defined by statute, treaty, Executive Order, or court decision are protected. The United States holds many of these interests in trust for tribes and their members. The federal trust doctrine was first described by the Supreme Court in Cherokee Nation v. Georgia 30 U.S. (5 Pet.) 1 (1831). The United States holds the underlying title or interest to many of these reserved rights for the benefit of the tribe or tribes. The Forest Service manages NFS lands consistent with other federal laws and the protection of off-reservation rights.

The following excerpts from the treaties with the Nez Perce Tribe and Shoshone-Bannock Tribes, and the EO with the Shoshone-Paiute Tribes characterize the rights that the tribes have and where they can exercise those rights. Certain federal laws that pertain to the exercise of religion at Indian sacred sites also are included in this section. This is followed by a summary of Forest Service directives and plans pertaining to tribal rights.

Nez Perce Tribe Treaties (1855 and 1863): In 1854, Isaac Stevens, governor of the Washington Territory, began negotiations with area tribes. The Nez Perce Tribe Treaty of 1855, a Stevens treaty, established a 7.5-million-acre reservation and reserved rights to fish, hunt, gather, and pasture. Article 3 of the treaty identifies the following rights for the Nez Perce Tribe:

> *The exclusive right of taking fish in all the streams where running through or bordering said reservation is further secured to said Indians: as also the right of taking fish at all usual and accustomed places in common with citizens of the Territory, and of erecting*

> *temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land (Nez Perce Tribe Treaty of 1855, Article 3).*

The Nez Perce Tribe Treaty of 1863 Article 8 secures the same rights as the 1855 treaty and expressly states:

> *…as set forth in the eighth article of the treaty of June 11, 1855; and further, that all the provisions of said treaty which are not abrogated or specifically changed by any article herein contained, shall remain the same to all intents and purposes as formerly, - the same obligations resting upon the United States, the same privileges continue to the Indians outside of the reservation…*
>
> *…The United States also agree to reserve all springs or fountains not adjacent to, or directly connected with, the streams or rivers within the lands hereby relinquished, and to keep back from settlement or entry so much of the surrounding land as may be necessary to prevent the said springs or fountains being enclosed; and, further, to preserve a perpetual right of way to and from the same, as watering places, for the use in common of both whites and Indians… (Nez Perce Tribe Treaty of 1863, Article 8).*

The Stevens treaty secured three types of rights including hunting, gathering, and pasturing on open and unclaimed lands, fishing in usual and accustomed places, and through the additional Treaty of 1863, access to springs and fountains.

Shoshone-Bannock Tribes Treaty (1868): The Shoshone-Bannock Tribes entered into the Fort Bridger Treaty in 1868. The Fort Hall Reservation in southeastern Idaho was established under the terms of the Fort Bridger Treaty for the Eastern Shoshone, including the Lemhi and the Bannock. It also reserved rights outside of established reservations, including hunting rights:

> *The Indians herein named agree, when the agency house and other buildings shall be constructed on their reservations named, they will make said reservations their permanent home, and they will make no permanent settlement elsewhere; but they shall have the right to hunt on unoccupied lands of the United States so long as game may be found thereon, and so long as peace subsists among the whites and Indians on the borders of the hunting districts (Fort Bridger Treaty of 1868, Article 4).*

Additionally, on June 6, 1900, President McKinley signed the Fort Hall concession of lands (Idaho Centennial Commission Native Americans Committee [ICCNAC] 1992). This cession affirmed the off-reservation rights of the Fort Bridger Treaty stating, in Article IV of the concession agreement or Act, that:

> *So long as any of the lands ceded, granted, and relinquished under this treaty remain part of the public domain, Indians belonging to the above-mentioned tribes, and living on the reduced reservation, shall have the right, without any charge therefore, to cut timber for their own use, but not for sale, and to pasture their livestock on said public land, and to hunt thereon and to fish in the streams thereof.*

Shoshone-Paiute Tribes Executive Order (1877): After 1868, reservations were established through presidential executive order (Shoshone-Paiute Tribes 2021). The Shoshone-Paiute Tribes EO of 1877, signed by United States President Rutherford B. Hayes, set aside the Duck Valley Reservation for several Western Shoshone bands who traditionally lived along the Owyhee River of southeastern Oregon, in

southwestern Idaho, and along the Humboldt River of northeastern Nevada (Thomas et al. 1986). Later, they were joined by Paiute from the lower Weiser country of Idaho and independent Northern Paiutes from the Fort McDermitt, Camp Harney, and Quinn River areas, as well as from the Owyhee region of southwestern Idaho. The aboriginal Northern Paiute territory includes portions of southwestern Idaho, eastern Oregon, and northwestern Nevada.

Land and Resource Management Plan: Forest Service Manual 1563 directs the Forest Service to implement programs and activities consistent with and respecting tribal rights and to fulfill legally mandated trust responsibilities to the extent they are determined applicable to NFS lands. Treaty rights and trust responsibilities are defined in Forest Service Manual 1500, Chapter 1560 as:

> *Those rights or interests reserved in treaties for the use and benefit of Tribes. The nature and extent of treaty rights are defined in each treaty. Only Congress may abolish or modify treaties or treaty rights. Trust responsibilities arise from the U.S.'s unique legal and political relationship with Indian tribes. It derives from the Federal Government's consistent promise in the treaties that it signed, to protect the safety and well-being of the Indian tribes and tribal members. The federal trust responsibility is a legally enforceable fiduciary obligation on the part of the U.S. to carry out the mandates of federal law with respect to all federally recognized American Indian and Alaska Native tribes and villages (Forest Service 2016a:51).*

The Payette National Forest Land and Resource Management Plan (Forest Service 2003a) and the Boise National Forest Land and Resource Management Plan (Forest Service 2010) also provide as part of the desired conditions that:

> *Federal agencies take a more proactive role on the tribes' behalf, especially in areas of treaty interest, rights, traditional and cultural resources, and ecosystem integrity. Federal agencies provide opportunities for traditional American Indian land uses and resources. The presence of healthy habitats is fundamental to the achievement of both useable and harvestable levels of resources significant to American Indians, as well, as to ecosystem integrity (Forest Service 2003a:III-71; Forest Service 2010: III-73).*

Forest Service Manual 1500, Chapter 1560 also summarizes the Forest Service responsibility to protect tribal cultural resources and sacred sites, as codified in legislation, regulations, and other statutory authorities. These apply to sites of historical importance and to sacred sites held sacred because of religious or spiritual importance.

American Indian Religious Freedom Act (1978): The American Indian Religious Freedom Act (42 United States Code 1996) promotes federal agency consultation with tribes on activities that may affect their traditional religious rights and cultural practices. These include, but are not limited to, access to sacred sites, freedom to worship through ceremonial and traditional rights, and use and possession of objects considered sacred. These rights and practices may be associated with, and lend significance to, a property. The American Indian Religious Freedom Act directs agencies to consult with Native American traditional religious leaders in a cooperative effort to develop and implement policies and procedures that will aid in determining how to protect and preserve Native American cultural and spiritual traditions.

National Historic Preservation Act: The National Historic Preservation Act (NHPA) of 1966, as amended through December 16, 2016 (Public Law [P.L.] 89-665, as amended by P.L. 96-515; 54 United States Code [USC] 300101 *et seq*.) is the principal federal law protecting historic properties.

Section 106 of the NHPA (54 USC 306108) directs all federal agencies to consider the effect of their undertakings (i.e., actions, financial support, and authorizations) on any historic properties. The Advisory Council on Historic Preservation (ACHP) regulations at 36 CFR 800 implement Section 106. Procedures are outlined for identifying resources; evaluating their significance; assessing effects; implementing measures to mitigate adverse effects; and consulting with the ACHP, State Historic Preservation Offices (SHPOs,) Tribal Historic Preservation Offices, and other interested parties. The National Register of Historic Places (NRHP) is used as a planning tool under these regulations to help federal agencies evaluate the significance of cultural resources. Additionally, the NHPA requires federal agencies to consult with Indian tribes to determine whether there are properties of traditional religious and cultural importance to Indian tribes that may be eligible for listing on the NRHP (54 USC 302706).

Federal agencies are directed to identify an Area of Potential Effects (APE) when assessing the potential impacts to historic properties resulting from an undertaking that falls under the purview of Section 106. Per 36 CFR 800.16(d), an APE is defined as "...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking…" The APE defines that area within which the identification of historic properties will occur. While the APE is a NHPA-specific tool for assisting with identifying the potential effects of an undertaking it is also useful in identifying resources that may also require consideration in the context of tribal interests.

Native American Graves Protection and Repatriation Act (NAGPRA) (1990): The Native American Graves Protection and Repatriation Act (NAGPRA) became law in 1990; the regulations implementing the statute were completed and went into effect in January 1996. This law formally affirms the rights of Indian tribes, Native Alaskan entities, and Native Hawaiian organizations to custody of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony with which they have a relationship of cultural affiliation. NAGPRA gives even stronger custody rights to lineal descendants when such a close relationship can be documented. In addition, the law and regulations describe procedures designed to ensure that all Americans can derive educational, historical, and scientific value from the remains and objects covered by the statute through public interpretation, documentation, and study. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.

Executive Order 13007 (1996): EO 13007 (Indian Sacred Sites) states that federal land managing agencies shall, to the extent practicable, accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. It also requires agencies to develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites.

Sacred sites are defined in EO 13007 as, "any specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the Indian tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site."

Executive Order 13175 (2000): This EO (Consultation and Coordination with Indian Tribal Governments) establishes regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes. This order revokes the preceding EO 13084 – Consultation and Coordination with Indian Tribal Governments.

Secretarial Order 3206 (1997): This Order (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act) clarifies the responsibilities of federal agencies when actions taken under authority of the ESA and associated implementing regulations affect, or may affect, Indian lands, tribal trust resources, or the exercise of American Indian tribal rights. It acknowledges the trust responsibility and treaty obligations of the United States toward Indian tribes and tribal members. Accordingly, federal agencies will carry out their responsibilities under the ESA in a manner that harmonizes the federal trust responsibility to tribes, tribal sovereignty, and statutory missions and strive to ensure that Indian tribes do not bear a disproportionate burden for the conservation of listed species.

Secretarial Order 3403 (2021): This Order (Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Water) seeks to protect the treaty, religious, subsistence, and cultural interests of federally recognized Indian Tribes. It directs federal agencies to ensure all decisions relating to federal stewardship of lands, waters, and wildlife under their jurisdiction consider the interests of any Indian Tribes and how to safeguard those interests.

Memorandum of Understanding Regarding Interagency Coordination and Collaboration for the Protection of Indigenous Sacred Sites: This Memorandum of Understanding (November 2021) affirms eight agencies' (USDI, USDA, USDOT, USDOE, USEPA, CEQ, ACHP, and Tennessee Valley Authority) commitment to improve the protection of, and access to, Indigenous sacred sites through increased collaboration with Tribes to ensure stewardship and access to sites, and incorporate Traditional Ecological Knowledge into management, treatment, and protection procedures.

Presidential Memorandum – Memorandum on Uniform Standards for Tribal Consultation (2022): The purpose of this Presidential memorandum is to establish uniform minimum standards to be implemented across all agencies regarding how Tribal consultations are to be conducted, as well as improve and streamline the consultation process for both Tribes and Federal participants, and ensure more consistency in how agencies initiate, provide notice for, conduct, record, and report on Tribal consultations. Consultation will ensure that applicable information is readily available to all parties, that Federal and Tribal officials have adequate time to communicate, and that after the Federal decision, consulting Tribal Nations are advised as to how their input influenced that decision-making.

3.24.4 Affected Environment

The analysis area is in the traditional subsistence range of the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes. Historically, their lifeways were shaped by seasonal travel and resource harvesting and gathering. They spent winter in the warmer lower areas along the river valleys, and summer and early fall higher in the mountains to take advantage of the cooler temperatures and to gather plants, harvest fish, and hunt small and large game animals (Forest Service 2015c). The Nez Perce Tribe's aboriginal territory and lifeways are associated with the Columbia Plateau, whereas the Shoshone-Bannock Tribes and Shoshone Paiute Tribes aboriginal territories and lifeways are associated with the Great Basin. The Columbia Plateau is characterized by arid tablelands, intermontane basins, dissected lava plains, and scattered low mountains (USGS 2016). The Great Basin is characterized by north-south trending mountain ranges with large basins between. A brief tribal history for each Tribe, beginning with the ethnohistoric period around the time of contact, and leading up to contemporary issues and interests is provided below. This information is summarized from publicly available sources. Although the Tribes each provided an ethnographic study, those documents contain confidential information and therefore are not disclosed to the public.

3.24.4.1 Nez Perce Tribe

Ancestors of the Nez Perce (*Niimi'ipuu*) were the aboriginal inhabitants of this region of Idaho. The *Niimi'ipuu* had one of the largest territories in present day Idaho, as their aboriginal territory covered parts of present-day north-central Idaho, northeast Oregon, southeast Washington, and western Montana. This area included several major river basins: the Columbia, the Salmon, the Snake, and the Clearwater (Indian Claims Commission 1961). The settlement and subsistence patterns of the *Niimi'ipuu* were varied and linked to resource distribution and environmental features (Churchill 1983). The *Niimi'ipuu* formed composite bands generally based on familial ties, language, and territory (ICCNAC 1992; Walker 1982). These bands lived in villages along the riverways and tributaries but traveled seasonally for subsistence. When travel was less frequent in the winter, the *Niimi'ipuu* lived in pit houses and longhouses. Teepees and wikiups were used during more active traveling seasons such as spring and summer. *Niimi'ipuu* engaged in fishing, hunting, and gathering across their vast aboriginal territory, and these activities still play a major role in the culture, religion, subsistence, and commerce of The Nez Perce Tribe and their tribal members (Nez Perce 2017). Steelhead, several species of salmon, lamprey eels, and several other fish species were harvested for use and for drying as winter stores (Greiser Aff. 1998).

This lifeway was disrupted in the early to mid-1800s by Euroamerican fur-trapping, exploration, and settlement which occurred within *Niimi'ipuu* homelands and eventually the Nez Perce Tribe's territory. Territorial governor Issac Stevens representing the U.S. government negotiated the Nez Perce Treaty of 1855 reserving land for the Nez Perce Tribe, centered in the Lapwai area of northern Idaho. Euroamerican miners and settlers continued to encroach on treaty reserved lands, and when gold was discovered in Orofino, Idaho in the early 1860s, the problem intensified. Another treaty was drafted in 1863 claiming more Nez Perce territory for the U.S. government, which was ratified by the U.S. Congress in 1867. Much of the land claimed was in the Wallowa country of Oregon. This was the home of Chief Joseph's band who had not been part of the 1863 treaty negotiations. A period of unrest and struggle between Chief Joseph's band and the settlers followed, leading to the Nez Perce War in the 1870s. By 1877, most of Chief Joseph's band was forced onto an Oklahoma reservation far from their homeland. A period of

government control followed with the goal of assimilating Native Americans into the white population by suppressing native cultures and languages.

Despite this pressure to acculturate, the Nez Perce Tribe and *Niimi'ipuu people* were determined to keep their culture and traditions. Additional laws were enacted that further reduced tribal lands, such as the Dawes Act of 1887 that allowed the government to divide communally held lands into individual parcels allowing each male tribal member an allotted number of acres. When the original allotment holder passed the land was divided among descendants. Any "leftover" land not allotted to a male tribal member was sold as surplus to Euroamerican farmers and cattle ranchers. The Dawes Act systematically fragmented tribal ownership of reservation lands and consumes Bureau of Indian Affairs resources for land ownership tracking. By the 1930s, this practice had debilitated tribal finances and caused the loss of millions of acres of treaty reserved lands and is an issue that continues to impact tribes (ICCNAC 1992; Nez Perce Tribe 2020a).

The Indian Reorganization Act of 1934 was passed to rehabilitate tribal economies and to further self-government. The act ended the issuance of further allotments and allowed the Secretary of the Interior authority to create new reservations for tribes with no previous federal land designation and to restore lands not already sold to tribal ownership. In 1935, The Nez Perce Tribe opted not to reorganize their government and constitution based on this Act. The Tribe, therefore, continued to be governed by its prior Constitution, which established a nine member Nez Perce Executive Council. The Constitution was amended in 1948 and again in 1961.

The elected Tribal Executive Committee remains the governing body of the Nez Perce Tribe. The goals of the Nez Perce Tribe today are to manage natural resources to meet the demands of modern society while providing cultural protection and economic stimulus (Nez Perce Tribe 2020a). The Nez Perce Tribe now manages a wide array of natural resources including timber and salmon fisheries within their 750,000-acre reservation, as well as within off-reservation treaty rights areas (Nez Perce Tribe 2020a).

Article 3 of the treaty reserves to the Tribe the right to fish at all usual and accustomed fishing places, and hunt, gather, and pasture horses and cattle on open and unclaimed land. The analysis area is located within the area claimed to have been exclusively used and occupied by the Nez Perce Tribe, as adjudicated by the Indian Claims Commission (Indian Claims Commission 1961).

In 1998, the United States filed federal reserved water rights claims as trustee for the Nez Perce Tribe. That filing attached an expert report documenting usual and accustomed fishing places reserved for the Tribe by the 1855 Treaty. Based on these usual and accustomed fishing places, the United States asserted federal reserved water rights. The United States documented Nez Perce sites used during and before 1855 including village sites, fishing locations, named usual and accustomed fishing places from Nez Perce oral tradition based on depositions and affidavits of Nez Perce elders given in 1997 and 1998, and archaeological sites that predate most historical records that contain riverine/aquatic resources or evidence of use of such resources. These sites are all evidence of Nez Perce usual and accustomed fishing places and include usual and accustomed fishing places within the Operations Area Boundary, including the East Fork SFSR to the headwaters and likely all streams in the area (Greiser 1998).

Fishing, hunting, and gathering across the vast Nez Perce Tribe aboriginal territory and at their traditional places, including areas within and surrounding the SGP, and in waters directly downstream of the SGP, continues to be vital to the culture, religion, subsistence, and commerce of the Tribe (Nez Perce 2019). Anadromous fish, such as Chinook salmon; roots, such as camas; and a variety of game were, and continue to be, important subsistence resources (Hunn et al. 1998; Nez Perce Tribe 2019, 2020). Principal plant resources included camas, cous, wild onion, balsam root, and bitterroot. Noted tribal resources of concern include spring/summer Chinook salmon, steelhead, bull trout, westslope cutthroat trout, redband rainbow trout, mountain whitefish, western pearl shell, Rocky Mountain bighorn sheep, North American wolverine, fisher, gray wolf, Clark's nutcracker, whitebark pine, limber pine, bent-flower milkvetch, Sacajawea's bitterroot, and Idaho Douglasia. Some of their traditional-use resources of concern include huckleberries, serviceberry, elk thistle, yarrow, wild onion, wild tobacco, Indian hemp, tule, elderberry, chokecherry, Indian tea, Oregon grape, thimbleberry, alder, birch, kowskows, elk, mule deer, moose, and white-tailed deer. Further, the Nez Perce Tribe utilized Ponderosa Pine and Lodgepole Pine as a food resource (Churchill 1983). Through their ethnographic study, the Tribe has presented historical presence and continued use by tribal members in the analysis area.

The SGP is outside of the boundaries of the reservations recognized in either the Treaty of 1855 or the Treaty of 1863 reservations but is within the Nez Perce Tribe's traditional use area and ceded lands. The Nez Perce Tribe continues to be active in fisheries management and habitat restoration along the Salmon River watershed (Nez Perce Tribe 2019). As the fisheries in their aboriginal territory are of such importance to their lifeway, the Nez Perce Tribe has a Department of Fisheries Resource Management (DFRM) that works to restore Chinook salmon in the East Fork SFSR and the SFSR watersheds. This program began in the early 1980s and includes hatchery supplementation, fishery research, and watershed restoration. Current activities in the analysis area include fish harvesting in the mainstem SFSR, as well as Secesh, Lick Creek, Johnson Creek, and EFSR. The Tribe's ethnography identifies No Man's Creek, Meadow Creek, and Sugar Creek as traditional fishing areas within the Operations Area Boundary. Other locations identified as traditional fishing areas in the tribal resources analysis area include: East Fork SFSR (to the headwaters), Johnson Creek, Cabin Creek, Warm Lake Creek, Warm Lake, Riordan Creek, No Man's Creek, Tamarack Creek, Stibnite Creek, Salt Creek, Pepper Creek, Secesh River, Buckhorn Creek, Camp Creek, Cougar Creek, Fourmile Creek, Blackmare Creek, Penney Creek and Springs, Dollar Creek, Six-bit Creek, Two-bit Creek, Trail Creek, Bear Creek, and Lodge Pole Creek (Greiser 1998; Battaglia 2018, 2023). Harvest activities in the SFSR focus on hatchery returns to an adult weir and trap located in the vicinity of Warm Lake (Nez Perce 2019).

The Nez Perce Tribe have conveyed in their ethnography and during tribal consultations that the Thunder Mountain Road and Johnson Creek Road are part of a traditional tribal travel route system used by the Tribe (Battaglia 2023).

3.24.4.2 Shoshone-Bannock Tribes

The Shoshone-Bannock Tribes of Fort Hall comprise the eastern and western bands of the Northern Shoshone and the Bannock or Northern Paiute bands who occupied a vast region that included most of southern Idaho, Oregon, western Wyoming and Montana, and areas south into Nevada and Utah (ICCNAC 1992; Murphy and Murphy 1986; Walker 1982). The Northern Paiutes left the Nevada and Utah regions for southern Idaho in the 1600s and traveled with the Shoshones in pursuit of buffalo; they

became known as Bannocks (Shoshone-Bannock 2021). The northern portion of their territory in Idaho included present day Adams and Valley counties. The Shoshone-Bannock Tribes also traveled in and collected resources throughout central Idaho's Salmon River Mountains, among other areas (Forest Service 2003a; Murphy and Murphy 1986:286). The four Northern Shoshone Bands divisions included: (1) the Western Shoshone (Waareekas), including the Boise and the Bruneaus; (2) the Mountain Lemhi Shoshone, including the Dukudeka (Sheepeaters) and the Agaidikas (Salmoneaters); (3) the Northwestern Shoshone, including the Bear Lakes, Cache Valley, Bannock Creek and Weber Ute; and (4) the Pohogue (Fort Hall) Shoshone (Forest Service and BLM 1997).

The Shoshone (*Newe*) and the Bannock are two separate tribes with different languages, but these two groups formed into bands of shifting composition and leadership. The Shoshone speakers were the majority, but the chieftainship was sometimes held by a Bannock (Murphy and Murphy 1986). The two intermixed on hunting trips and eventually enough intermarriage occurred that the two Tribes became known as the Shoshone-Bannock Tribes. The Shoshone-Bannock Tribes traveled seasonally to collect plants and to hunt. Important animals and plants for subsistence included salmon, deer, elk, moose, mountain sheep, buffalo, various nuts, seeds, berries, and roots such as camas. Small game animals also were used extensively including groundhog, jack rabbit, porcupines, and prairie dogs (ICCNAC 1992; Walker 1982; Walker 2019). These resources are still important to the Shoshone-Bannock Tribes. Travel was by foot until horses were acquired in the early 1700s. With horses came increased mobility and hunting opportunities. The first contact with Euroamericans was with Lewis and Clark and their Corps of Discovery in the early 1800s which was aided by Lemhi Shoshone Sacajawea. Euroamerican and Shoshone-Bannock tensions significantly rose when Nathaniel Wyeth established the first trading post at Fort Hall, Idaho in 1834. As Fort Hall became a significant stopover for explorers, trappers, and settlers on their way to the west coast, thousands of Euroamericans traveled through the Shoshone-Bannock Tribes' territory, causing loss of natural resources of critical importance to the Shoshone-Bannock Tribes (ICCNAC 1992). Fort Hall was later incorporated into the Fort Hall Indian Reservation (Shallat 1995).

The U.S. government negotiated the Fort Bridger Treaty with the Eastern Band of Shoshoni [*sic*] and Bannocks in 1868, with the Shoshone-Bannock Tribes retaining the right to use all unoccupied land in the U.S. The U.S. government later consolidated the three Bannock bands and the Western Shoshone onto the Fort Hall Reservation. The Bannocks were promised their own reservation in the future, but that reservation was never established. The Bannock Tribe has contested the lack of their own reserved lands, which were promised in the 1868 treaty (Forest Service and BLM 1997; ICCNAC 1992).

In the northern part of the territory were the Mountain Lemhi Shoshone, who wintered along the Lemhi River, a tributary of the SFSR. The Lemhi depended heavily on salmon runs in the Salmon River system for their subsistence. Fish were harvested either individually by harpoon or utilizing weirs across stream channels, basket traps, or seines and hand nets (Murphy and Murphy 1986). The central Idaho and western Montana gold discoveries of the 1860s brought thousands of prospectors into Lemhi territory leading to increased resource competition, tribal displacement, rising tensions, and other hardships for the Lemhi, who were parties to an unratified treaty in 1868. The Lemhi Shoshone living on a small reservation, succumbed to U.S. government pressure in 1907 to move to the Fort Hall Reservation. The Dukudeka or the Mountain Shoshone lived in the mountains of central Idaho. Unlike the Lemhi and other Shoshone bands, this band did not acquire horses early on in the 1700s. Once the Dukudeka had horses, they joined with the Mountain Lemhi Shoshone (Forest Service and BLM 1997; Madsen 1999).

The Indian Reorganization Act of 1934 enabled the Shoshone-Bannock Tribes to establish a system of government operating under a constitution approved in 1936 (ICCNAC 1992; Shoshone-Bannock Tribes 2020). Today the Shoshone-Bannock Tribes are self-governed by the Fort Hall Business Council. This council consists of seven elected tribal members who serve two-year terms and maintain authority over all business procedures and matters of self-government. Today 97 percent of the 544,000 acres of lands on the Fort Hall Reservation are owned by the Shoshone-Bannock Tribes or by individual tribal members (Forest Service and BLM 1997; Shoshone- Bannock Tribes 2020).

Article 4 of the Fort Bridger Treaty affords off-reservation rights to the Shoshone-Bannock Tribes on "unoccupied lands" of the United States. The Shoshone-Bannock Tribes exercise their off-reservation treaty rights by organizing hunting and fishing expeditions in "unoccupied lands" such as the analysis area and in adjoining western states beyond Idaho (State of Montana 2020). The Supreme Court has upheld tribal rights to hunt on unoccupied lands of the United States (Herrera vs. Wyoming 2019). The Shoshone-Bannock Tribes manage fish and wildlife populations, their habitats including watersheds such as the Salmon River basin through rehabilitation and hatchery programs that help reestablish fish runs decimated by mining, logging, forest fires, irrigation, and overgrazing (Polissar et al. 2016; Shoshone-Bannock Tribes 2020; Walker 1993).

The SGP lies outside of the Fort Hall Reservation but within the Shoshone-Bannock Tribes' traditional use area. During tribal consultations, tribal members have conveyed the cultural significance of the analysis area for their people. Undeveloped portions of the Boise and Payette National Forests are considered unoccupied federal lands on which the Shoshone-Bannock Tribes exercise their tribal treaty rights. It is the Shoshone-Bannock Tribes' philosophy that the protection and enhancement of their culture is directly tied to the exercising of tribal treaty rights, such as on and off reservation hunting and fishing, as it is through these activities traditional knowledge such as prayers, songs, stories, and practices are transmitted from generation to generation (Shoshone-Bannock 2015).

Landscapes and natural resources play an integral part in tribal spirituality, culture, and religious ceremonies. Items such as sweet sage and tobacco made from a variety of plants are used in ceremonies. The Shoshone-Bannock Tribes gather many plants for medicinal purposes, including chokecherry, sagebrush, and peppermint. A myriad of other plants are gathered for food and to provide shelter. Plants, rocks, clays, and other resources are also used for ceremonies, ornamentation, and shelter. The Shoshone and Bannock bands hunt and utilize buffalo, elk, deer, bighorn sheep, moose, upland game birds, and small mammals. Salmon fishing is an integral part of Shoshone-Bannock history and culture. Geysers, thermal pools, and other water features are also utilized heavily by the Shoshone-Bannock peoples (Probert 2004).

The Shoshone-Bannock have conveyed in their ethnography and during tribal consultations that the Thunder Mountain Road and the Burntlog Route are part of a traditional tribal travel route system used by the Tribes (Shoshone Bannock Tribes 2020). Historically, the Middle Fork of the Salmon River is a significant area and the tributaries of the East Fork SFSR were utilized for many activities and provided a communication network between the Weiser Band and the Lemhi.

3.24.4.3 Shoshone-Paiute Tribes

Ancestral bands of Western Shoshone and Northern Paiute traveled in small groups over a vast territory centered around southern Idaho, northern Nevada, and southeastern Oregon (Fowler and Liljeblad 1986; Thomas et al.1986). The core subsistence areas of the Northern Paiute/Northern Shoshone-Bannock and the Western Shoshone were separated by the high ground dividing the Snake and Humboldt river drainages. Formerly each group travelled throughout different yet overlapping regions.

The Northern Paiute lived in two major bands in territories centering on the upper Snake and Owyhee Rivers, respectively. They used many of the same fishing and camas collection areas as the Shoshone-Bannock Tribes. The arid Paiute territory contained fewer subsistence resources than the Shoshone-Bannock Tribes' territory, except in the river valleys (Walker 1982). They necessarily relied more on plant foods such as sunflowers, wada seeds, currants, and huckleberries, plus small animals and insects. These traditional resources are still important to the Shoshone-Paiute Tribes. Much time was spent pursuing food based on seasonal cycles. In May, they left winter villages to gather roots and prepare salmon traps. At the end of the salmon runs, people dispersed to hunt and gather plants and insects. Communal rabbit and antelope drives, and wada seed gathering occurred in early fall. By November, food had been stored and the people returned to the winter villages. Homes were typically conical frame structures with tule mat coverings, but domed earth covered such as pit house structures were used as well, along with temporary shelters in the summer such as tripodal framed structures or wikiups and caves (Walker 1982, 2019).

The Western Shoshone were composed of various bands who traveled in small groups over a vast territory centered around southern Idaho and northern Nevada following seasonal routes to procure food. The bands were often named for their principal foods. Camps were shared, and bulkier items would be left in the camps or winter villages for communal use. Both the Western Shoshone and the Paiute were somewhat isolated by the Rocky Mountains and the Great Basin and did not encounter Euroamericans in their territory until the 1820s, but by the 1840s Euroamericans were traversing Shoshone and Paiute territory to reach the California gold mines. At first relationships were amicable, but conflicts ensued as use of the California Trail increased and the Shoshone-Paiute Tribes' lands were depleted of traditional animal and plant resources (ICCNAC 1992; Shoshone-Paiute Tribes 2020). Travelers using the California Trail urged Congress to provide protection, and the U.S. government responded by sending agents to make treaties with the Shoshone, the Paiute, the Bannock, the Ute, and the Goshute. However, this did not solve the conflict, because the first treaty in 1855 was not ratified by Congress and was never recognized. Frustrated and lacking needed resources, the Western Shoshone and the Paiute fought back, and the U.S. government established military forts at Fort Halleck, Fort Ruby Valley, and Fort McDermitt. In 1863, the Western Shoshone signed the Treaty of Ruby Valley but did not cede lands to the U.S. government as part of this peace treaty.

The creation and subsequent expansions of the Duck Valley Indian Reservation relocated bands of Northern Paiute, Northern Shoshone, and Bannock people. In 1877, the Duck Valley Reservation was set aside by EO for several Western Shoshone bands who traditionally lived along the Owyhee River of southeastern Oregon, in southwestern Idaho, and along the Humboldt River in northeastern Nevada. At that time, Shoshone leader Captain Sam said this location was ideal as it was plentiful with game and fish, there was good farmland, and abundant timber (Shoshone-Paiute Tribes 2010). Later, they were joined by

Paiute from the lower Weiser country of Idaho and independent Northern Paiutes from Fort McDermitt, Camp Harney, and Quinn River and from the Owyhee region of southwestern Idaho, who settled on the reservation and took up farming and ranching. The reservation was expanded on the north side by another EO in 1886 to include a Northern Paiute group, Paddy Cap's Band, who arrived in 1884 after being released from the Yakama Reservation (Forest Service and BLM 1997). A third expansion occurred in 1910 (Shoshone-Paiute Tribes 2020). The Shoshone and Paiute united at Duck Valley under the Indian Reorganization Act of 1934 and formed a tribal government through a constitution and bylaws which was adopted in 1936 (Shoshone-Paiute 2021).

Today, the Duck Valley Reservation encompasses approximately 294,000 acres. A lack of water on the reservation was an issue for farming, and the need for a dam and reservoir was recognized as early as the 1880s. Requests were ignored by the federal government for many years, and construction of a dam and reservoir (Wildhorse Reservoir) was not completed until 1937 as part of the Duck Valley Irrigation Project. The Shoshone-Paiute Tribes are governed by a Tribal Business Council made up of seven elected tribal members who serve three-year terms (Forest Service and BLM 1997; Shoshone-Paiute Tribes 2020). The SGP lies outside of the Duck Valley Reservation but within the Shoshone-Paiute Tribe's traditional use area.

Various ratified and unratified treaties were made with ancestral bands of the Duck Valley Reservation, which have led to currently unresolved land claims and off-reservation rights (McDonald 2009). Many Shoshone-Paiute tribal members today have ancestors in more than one aboriginal group and many are multilingual (Forest Service 2003b). Individuals therefore maintain interests in the territories of more than one group. Management of resources, such as water, fish, and wildlife, are of importance to the Shoshone-Paiute Tribes (Harrison 2015; Shoshone-Paiute Tribes 2020).

3.24.4.4 Tribal Interests

The existing conditions in the context of Native Americans refers to the reserved rights tribes have in the analysis area and how these rights are being exercised. Each of the federally recognized tribes with interests in the analysis area bring their own language, traditions, and religion to the area. Since time immemorial, access to and availability of natural resources has been crucial to the survival of indigenous communities, and these resources still have a major role in the subsistence, culture, religion, and economy of the tribes. Many places were visited during a yearly cycle of seasonal migrations to collect food, medicines, and other materials for sustenance, as well as for religious practices and social gatherings.

The gathering of these resources is still a significant part of the individual cultures of the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes. Tribes maintain an active role in the protection and restoration of various species of plants, wildlife, and fish and their habitats. In NFS lands of Idaho, resource use of forest products is tied to personal, traditional, economic, and spiritual purposes, including fishing, particularly for anadromous fish, hunting big game, gathering plants for consumption and for basketry, as well as roots, berries, and harvesting wood products for teepee poles, firewood, and sweat lodges (Forest Service 2003b).

Ethnographic studies undertaken by individual Tribes for the SGP (Nez Perce Tribe [Battaglia 2018, 2023]; Shoshone-Bannock Tribes [Lahren 2020]; Shoshone-Paiute Tribes [Walker 2019]), public scoping

comments and documents, comments on the DEIS, and government-to-government consultation between the Forest Service and Tribes have identified existing conditions and tribal concerns in the analysis area.

Many fish, wildlife and plant species were and are traditionally utilized by regional tribes and bands of this region for subsistence, ceremonial, medicinal, and other uses (Battaglia 2018, 2023; Hunn et al. 1998; Lahren 2020; Walker 2019). Culturally important species of fish, wildlife, and plants are present in the analysis area, and the Forest Service is continuing to consult with the Tribes about these tribal resources of concern. Known resources of interest to the Tribes are presented in the following sections.

Tribal Historical/Archaeological Sites

A number of historical and archaeological sites that may have importance to Tribes have been identified within the SGP analysis area. For purposes of the Section 106 consultation and to provide a framework within which to identify potential heritage resources of importance, two APEs were developed for the SGP; a physical effects APE which generally constitutes those areas where ground disturbing activity may occur and a visual, auditory, and vibratory APE which comprises a broader area in which non-physical, or indirect effects may occur. These APEs are wholly contained within the tribal analysis area.

Project-specific heritage resource inventories have been conducted in the APE for physical disturbances to identify historical and archaeological sites. Additional previously recorded heritage resource data was gathered from the Idaho SHPO to identify historic properties within both the physical APE and the visual, auditory, and vibratory APE. This information is presented in detail in **Section 3.17**. In summary, 42 heritage sites with archaeological components have been identified within the APE and thus the tribal analysis area.

Sacred Sites or Places, Traditional Cultural Properties, Cultural Landscapes

Consideration for non-archaeological tribal resources including sacred sites or places, TCPs, and CLs, is also a component of review during the NEPA process and is the responsibility of the lead federal agency when evaluating an undertaking. The Forest Service continues to consult with the Tribes regarding potential sacred sites or places in the analysis area.

A TCP, as defined in the NHPA, is a property that is eligible for inclusion on the NRHP "because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community" (Parker and King 1994). Stated another way, a significant TCP is defined as a property with "significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices" (Parker and King 1994).

The NPS defines a CL as a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values. CLs are generally one of four types: vernacular, designed, historic site, or ethnographic (NPS 2021). Ethnographic studies have been completed for the SGP by the Nez Perce Tribe (Battaglia 2018, 2023), the Shoshone-Paiute Tribes (Walker 2019), and the Shoshone-Bannock Tribes (Lahren 2020) to assist in identifying TCPs and CLs, as defined by the NPS. The Forest Service is in ongoing consultation with Tribes regarding potential TCPs and CLs in the analysis area.

Landscape features noted in the Nez Perce Tribe's ethnographies (Battaglia 2018, 2023) as having specific significance include: viewsheds and soundscapes, water and waterways, minerals, culturally modified trees, hot springs, trails, and travel corridors. The Nez Perce Tribe's ethnographies identify places of tribal cultural importance located within the analysis area (Battaglia 2018, 2023).

The South Fork Salmon River and broader area is described in the Shoshone-Bannock Tribes' ethnography (Lahren 2020) as a tribal cultural landscape that supports the hunting of salmon, gathering food, collecting berries, harvesting medicinal plants, and hunting big and small game, among other cultural practices.

Landscape features noted in the Shoshone Paiute Tribes' ethnography (Walker 2019) as having specific significance include: buttes; rock features and rock alignments; springs and hot springs; trails and travel routes; river and stream canyons; rock structures; valleys; caves and rock shelters.

The Payette National Forest continues to consult with the Tribes to determine whether areas of tribal cultural importance should be formally documented and evaluated as potential TCPs or CLs.

Traditional Use Sites

In addition to the tribal use and management of fish, wildlife, and plant resources, there are areas throughout the PNF and the BNF that have traditional, cultural, and spiritual significance to the Tribes (Battaglia 2018, 2023; Walker 2019; Lahren 2020). usual and accustomed fishing places have been documented throughout the area (Greiser Aff. 1998). The use and protection of these areas by the Tribes is a way of maintaining the link between their continuing culture and their ancestors. Areas with more than one type of significance to the Tribes often include locations such as hot springs, waterfalls, trails, rock art panels, and traditional gathering areas; it has been identified that the interconnectedness of these resources across the landscape is important. Other landscape features of importance include high points, such as mountain tops and ridgelines that have religious significance and are used for spiritual practices. Archaeological findings, information gathered during tribal consultations, and ethnographic studies from the Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes convey and identify that traditional use sites are located in the analysis area, although exact locations are not public information (Battaglia 2018, 2023; Lahren 2020; Walker 2019).

Tribally significant travel corridors and waterways have been identified in the analysis area including portions of the historic Old Thunder Mountain Road route (FR 440), portions of Johnson Creek Road (FR413), portions of the historic Burnt Log Road route (FR 414), the East Fork SFSR watershed and its tributaries, and the Riordan Lake shore. Traditional plant gathering and natural mineral site locations or collection areas within the analysis area also were cited as important to the Nez Perce Tribe in their ethnographies, but exact locations of these gathering areas have not been shared.

Named places of importance to the Nez Perce Tribe as identified in the ethnographies (Battaglia 2018, 2023) include: East Fork SFSR and Stibnite Mine; Johnson Creek; Yellow Pine, Idaho; Riordan Lake; Middle Fork of the Salmon River; South Fork of the Salmon River; Buckhorn Creek; Camp Creek; Cougar Creek; Fourmile Creek; Blackmare Creek; Penny Springs/Creek; Dollar Creek; Six-bit Creek; Two-bit Creek; Trail Creek; Bear Creek; Lodge Pole Creek; Poverty Flats; Phoebe Creek; Profile Creek; Caton Creek; Reagan Creek; Parks Creek; No Man's Creek; Stibnite Creek/Meadow Creek; Salt Creek;

Pepper Creek; Sugar Creek and Cane Creek; Lemhi Creek; Tamarack Creek; Warm Lake; Elk Meadow; and Long Valley.

Places of importance identified in the Shoshone-Bannock Tribes' ethnography (Lahren 2020) include: South Fork Salmon River; Bear Creek; Blackmare Creek; Buckhorn Creek; North Fork Buckhorn Creek; East Fork SFSR; Johnson Creek; Burntlog Creek; Riordan Creek; Sand Creek; Trapper Creek; Profile Creek; Elk Creek; West Elk Creek; Fitsum Creek; and North Fork-Fitsum Creek.

Places of importance identified in the Shoshone-Paiute Tribes' ethnography (Walker 2019) include: South Fork Salmon River; Middle Fork of the Salmon River; Bear Creek; Blackmare Creek; Buckhorn Creek; North Fork of Buckhorn Creek; East Fork SFSR; Profile Creek; Johnson Creek; Burntlog Creek; Riordan Creek; Sand Creek; and Trapper Creek.

Land Status and Access

Much of the SGP is on NFS land administered by the PNF and BNF and is mostly unoccupied federal lands; therefore, most lands are available for treaty rights use as stated in the various treaties and executive orders. usual and accustomed fishing places are also available. There are tribal concerns regarding the loss of unoccupied federal land which diminishes the area available to exercise treaty rights as well as loss of access to usual and accustomed fishing places.

The SGP Operations Area Boundary is composed of lands administered by the Forest Service and private lands; it includes both patented and unpatented mining claims. The SGP Operations Area Boundary currently contains over 850 acres of previous mining disturbance in the form of open pits, tailings, and development rock storage facilities. Some restoration and remediation activities have taken place, but extensive disturbance remains. Long-term mine operations have been the dominant land use within the Operations Area Boundary.

The transportation network in the analysis area includes State Highway (SH) 55, Valley County roads, and NFS roads. Valley County maintains Warm Lake (CR 10-579), Johnson Creek (CR 10-413), and McCall-Stibnite (CR 50-412) roads on NFS lands through easements. Additional details regarding access and the transportation system are provided in **Section 3.16**.

Public access through the SGP area is currently allowed and used for dispersed recreation and access to surrounding areas for recreation. The Burntlog Route would include the existing 20 miles of Burnt Log Road, which currently does not extend into the SGP area. The Johnson Creek Route would include the Johnson Creek Road and the Stibnite portion of the McCall-Stibnite Road. There are tribal concerns about continued access to usual and accustomed places in which Tribes exercise their rights. Currently, there are no tribal access restrictions on the Forest Service lands in the SFSR watershed. Tribes access their usual and accustomed fishing places, hunting areas, and plant gathering areas consistent with their reserved rights.

Water Resources

The analysis area includes lands in the East Fork SFSR watershed. These waters support fisheries in area streams and rivers. A detailed discussion of water resources is located in **Section 3.9**. The Nez Perce Tribe's Article 3 of the 1855 Treaty reserves to the Tribe the right to fish at all usual and accustomed

fishing places, and hunt, gather, and pasture horses and cattle on open and unclaimed land. The 1863 Treaty with the Nez Perce Tribe reserved the use of springs and fountains as well as perpetual rights-of-way to and from them. The definition of fountain is "a spring or source of water; the source or head of a stream"[1]. Tribal concerns include access to treaty resources including water. Further, impacts to water quality and or quantity affect wildlife, fisheries, and plants, and therefore treaty resources. The Nez Perce Tribe's ethnographic study identifies traditional fishing areas within and adjacent to the Operations Area Boundary (Battaglia 2018).

The Greiser Affidavit (1998) identifies streams with usual and accustomed fishing places in a region that includes the analysis area. In the vicinity of the Operations Area Boundary and disturbance associated with access roads under the 2021 MMP and Johnson Creek Route Alternative, the following identifications were made:

- Johnson Creek was identified as a usual and accustomed fishing place. The identification in upstream portions of Johnson Creek was based on archeological, ethnographic, and historical references while the portions of Johnson Creek near its confluence with the East Fork SFSR were based on identification by Nez Perce elders.
- Sugar Creek was identified as a usual and accustomed fishing place based on identification by elders.
- The East Fork SFSR to the headwaters and nearby reaches in the Operations Area Boundary were identified as usual and accustomed fishing places based on identification by elders.
- There are more than 100 seeps and springs in the Operations Area Boundary that are not contiguous with the creek locations. These springs were not identified as usual and accustomed fishing locations. These locations are shown in **Figure 3.8-6**.

Greiser Affidavit (1998) specifically states that usual and accustomed fishing places "likely extend both upstream and downstream from any of the specified locations." This is supported by Elmer Paul Crow, Jr., Silas Caleb Whitman, and Rudolph "Rudy" Carter, all enrolled members of the Nez Perce Tribe, whose affidavits were appended to the Greiser Affidavit (1998). The Crow Affidavit (1998) states: "I consider a 'usual and accustomed place,' as it says in the 1855 Treaty, to be anywhere the Nez Perce were camped. I consider these places to be areas, not specific sites." The Whitman Affidavit (1998) states: "My understanding of the phrase 'usual and accustomed fishing places' from the 1855 Treaty is that we reserved the right to go to every river and stream within our aboriginal territory to take fish. And we were not limited to just specific sites along those stream and river systems." The Carter Affidavit (1998) states: "We fish the whole stream, not just specific sites. The entire stream we call a fishing place." Considering this information, the usual and accustomed places identified within and adjacent to the Operations Area Boundary likely include historical fishing in all streams in the area.

Wetlands

Numerous wetland resources were identified in the Operations Area Boundary and adjacent areas throughout the analysis area, as described in **Section 3.11**. Wetlands provide important ecological functions for associated streams and rivers. Related riparian areas not only shade stream corridors and

[1] "fountain." Dictionary.com. 2022. https://www.dictionary.com/browse/fountain. Accessed April 2022.

improve water quality, but they also provide migratory corridors for wildlife and important habitat for terrestrial and avian wildlife. Tribal concerns include impacts to wetland and riparian areas are impacts to fisheries, wildlife, and vegetation habitat and therefore treaty resources.

Fisheries

Culturally important fish species in the analysis area include Chinook salmon (*Oncorhynchus tshawytscha*), steelhead trout (*Oncorhynchus mykiss*), bull trout (*Salvelinus confluentus*), westslope cutthroat trout (*Oncorhynchus clarki lewisi*), mountain whitefish (*Prosopium williamsoni*), Pacific lamprey (*Lampetra tridentata*), longnose dace (*Rhinichthys cataractae*), speckled dace (*Rhinichthys osculus*) and western pearlshell mussel (*Unionida*) (Battaglia 2018, 2023; Walker 2019).

Tribal salmon harvest areas include the mainstem SFSR, Secesh River, Lick Creek, Johnson Creek, and the East Fork SFSR and other tributaries with traditional fishing locations (Battaglia 2018, 2023; Nez Perce Tribe 2019). The Nez Perce Tribe expends millions of dollars annually restoring Chinook salmon runs in the East Fork SFSR and the SFSR through hatchery supplementation, fishery research, and watershed restoration. Imperiled stocks of spring/summer Chinook salmon, steelhead, and bull trout, and designated Critical Habitat including the upper East Fork SFSR up to the Yellow Pine pit lake at Stibnite, are of particular interest (Nez Perce Tribe 2019). The Tribes' concerns regarding fisheries extend to their restoration efforts being disrupted by the SGP and associated activities, including reduced access to perform fishery restoration.

Further, the Shoshone-Bannock Tribes, in conjunction with federal agencies, have developed fishery and wildlife projects that are being implemented within the Salmon and Upper Snake River sub-basins, including a conservation hatchery and satellite facility to expand chinook salmon and steelhead supplementation projects, among others (Shoshone-Bannock Tribes 2020b). The Salmon River Habitat Enhancement Project's goal is to monitor Chinook salmon and steelhead populations and evaluate their response to habitat actions in the Salmon River Basin (Shoshone-Bannock Tribes and FCRPS Action Agencies 2008). Specific information regarding fisheries is presented in **Section 3.12**.

Tribal concerns include salmon runs, salmon habitat, and tribal subsistence. The Tribes are concerned that the SGP would undo their fisheries restoration efforts and further jeopardize fish populations. Concerns include the loss of traditional fishing grounds and loss of harvest amounts.

Vegetation

Specific information regarding vegetation in the SGP area can be found in **Section 3.10**. Some of the culturally important plant species of interest for the analysis area include Huckleberry (*Vaccinium* sp.), Bitterroot (*Lewisia rediviva*), Grouseberry (*Vaccinium scoparium*), Camas (*Camassia quamash*), chokecherry (*Prunus* spp.), Gooseberry (*Ribes oxyacantthoides saxosum*), Thimbleberry (*Rubus parviflorus*), elderberry (*Sambucus racemosa*), currants (*Ribes* spp), Kinnickinick (*Arctostaphylos uva-ursi*), Beargrass (*Xerophyllum tenax*), Dog bane (*Apocynum cannabinum*), subalpine fir (*Abies lasiocarpa*), Yampah (*Perideridia gairdneri*), whitebark pine (*Pinus albicaulis*), limber pine (*Pinus flexilis*), lodgepole pine (*Pinus contorta*), bent-flowered milkvetch (*Astragalus Vexilliflexus*), Horsetail (*Equisetum* sp.), Pinemoss (*Alectoria* spp.), Lomatia (*Lomatium cous*), wild onion (*Allium* spp.), yarrow (*Achillea millefolium*), Indian Tea (*Rhododendron groenlandicum*), Mariposa Lily (*Calochortus*), Elk

thistle (*Cirsium geyeri*), Penstemon sp., Biscuitroot (*Eriogonum* sp.), Oregon grape (*Mahonia aquifolium*), Mormon tea (*Ephedra viridis*), rabbitbrush (Chrysothamnus nauseosus), sagebrush (*Artemisia* spp.), Syringa (*Philadelphus lewissi*), and wild carrot (*perideridia* sp.) (Battaglia 2018, 2023; Walker 2019; EWMP 2014).

Whitebark pine is currently a federally threatened species. Approximately 2,069 acres of occupied whitebark pine habitat were identified within the analysis area for vegetation resources. Limber pine habitat has also been documented as it is often coterminous with the whitebark pine habitat; both species thrive at high elevations and in harsh conditions. Mature limber pine trees are uncommon in the surrounding Forests, and this may be the only documented population of this species on the PNF (Forest Service 2023g). Lodgepole pine and subalpine fir are common in the vegetation analysis area.

There is one known occurrence of sweetgrass, a Forest Service sensitive species, located along the Burntlog Route, as well as one known occurrence of bitterroot, also a Forest Service sensitive species, located in the transmission line corridor. Sweetgrass rarely occurs on the Boise and Payette National Forests. Both sweetgrass and bitterroot are traditional and culturally significant plants for the Plateau and Great Basin tribes.

Plants and trees not only provide food and medicine but are utilized for shelters, baskets, and firewood. Sweetgrass (*Hierochloe odorata*), is utilized in traditional plant medicine practices, and as a structural material in weaving and basketry by the Northern Shoshone and Northern Paiute (Stevens 2002; Turnbaugh 1986; Lowie 1909). Other plants, such as camas (*Camassia quamash*), is a major food source and trade item of the Nez Perce, Northern Shoshone, and Northern Paiute tribes (Fellows et al 2023; Chalfant 1974; Scrimsher 1967). Berries such as currants, grouseberry, gooseberry, thimbleberry, chokecherry, and elderberry are harvested in early summer through fall. Root crops such as wild carrots, camas, biscuitroot, yampah, and elk thistle are harvested in spring through summer; wild onions are harvested from summer to fall. Other plants, such as Indian tea, can be gathered year-round. Teepees and sweat lodges are constructed from lodgepole pines. Tribal concerns include that traditionally gathered plant species documented in the SGP and surrounding area would be negatively impacted by the SGP including reduced ecosystem and plant community health or loss of habitat to treaty resources.

Noxious Weeds and Invasive Species

There is Tribal concern about non-native vegetation replacing native vegetation. Noxious weeds and non-native plant species have been documented in the SGP area and surrounding area in Valley County, Idaho. Noxious weeds and non-native plants are commonly found along roads and in other areas disturbed by soil movement or vegetation clearing. Detailed information on noxious weeds and invasive species in found in **Section 3.10**.

Wildlife

Detailed information regarding wildlife resources can be found in **Section 3.13**. Culturally important wildlife species in the analysis area include bighorn sheep (*Ovis canadensis*), North American wolverine (*Gulo gulo*), gray wolf (*Canus lupus*), elk or wapiti (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), moose (*Alces alces*), black bear (*Ursus americanus*), coyote (*canis latrans*), and a wide array of raptors, owls, waterfowl, upland game birds,

small mammals, invertebrates, and other species (Battaglia 2018, 2023; Walker 2019). Tribal restoration efforts have included improving suitable habitat for bighorn sheep and gray wolf populations (Nez Perce Tribe 2019).

Bighorn sheep occupy rugged canyons, foothills, and mountainous terrain in the analysis area. Wolverines have been documented in the PNF and BNF in general and the analysis area. The Shoshone-Paiute Tribes during tribal consultations have conveyed the specific cultural significance of wolverines. Gray wolves are habitat generalists with large pack territories; their range is related to availability of prey species, including deer, elk, and, less commonly, moose, bighorn sheep, and domestic stock. Gray wolves are also well documented in the analysis area including in the FCRNRW. Mule deer have been observed frequently in and near the analysis area.

Tribal concerns include direct impacts to wildlife populations and habitat loss as a result of the proposed SGP activities and there are indirect impact concerns regarding increased public access to currently "inaccessible" areas which could affect wildlife and other tribal resources, as well as impact solitude.

Treaty Rights Access

The Tribal interpretation of "access" to exercise treaty rights goes beyond the concept of simple entry into an area by vehicle or foot. "Access" also includes continued availability of the traditional natural resources in an area. Therefore, the tribal interpretation of loss of access extends to the exclusion, limitation, or unavailability of the traditional resources due to mining disturbance, associated infrastructure, and road construction. It would also presumably apply to the displacement of wildlife in those areas.

The Tribes are concerned with fish, wildlife, and plant populations' health, retaining access on federal lands, continued availability of resources of concern, and access to their usual and accustomed fishing areas in order to exercise Tribal treaty rights. The Tribes assert their authority and responsibility to advocate for species and habitat health as well as preserving their treaty rights for future use of lands and resources to ensure future opportunity.

Noise

Ambient noise levels in the analysis area are generally low. Rural communities or unpopulated lands are generally quiet but noise can be sporadically elevated by activities such as road traffic, air traffic, gunshots from hunting, or blasting from mining or avalanche hazard mitigation. Noise levels in the analysis area are highest in the urban areas (i.e., Cascade) adjacent to major transportation routes (i.e., SH 55). Along transmission lines, noise can include corona noise in the sound form of crackling or hissing. Additional details about noise and ambient noise levels around components of the SGP is presented in **Section 3.6**. Tribal concerns regarding noise include noise health stressors affecting wildlife as well as noise impacts to tribal experiences in traditional use areas.

Visual Resources

The analysis area is characterized as a mountain landscape broken occasionally by wide valleys with flat or hilly floors below mountain crests. In most instances, the valleys are narrow, rugged gorges. Tall, dense evergreen trees create a dark green visually dominant color throughout the area. Light grey rock

outcroppings and boulder fields are scattered throughout the landscape at higher elevations. Historical mining and human development are discernable and have impacted visual resources in the analysis area.

Human development is noticeable throughout the analysis area including roads, trails, fences, utility lines, and airstrips. Other structures include cabins, residences, barns, and outbuildings. Historic mining disturbances, such as access roads, historic mining pits, waste rock disposal areas, heap leach pads, and a spent ore disposal area, are present at the SGP. The East Fork SFSR flows through the mine site and forms a human-made lake at the bottom of the existing Yellow Pine pit with riparian vegetation along some areas of the pit wall. Additional details about visual resources in the analysis area is presented in **Section 3.20**. Tribal concerns include visual impacts as a result of the SGP that would impact tribal experiences in traditional use areas.

Recreation

Summertime recreation opportunities such as hunting, fishing, hiking, paddle boating, camping, and horseback riding are popular throughout the analysis area with opportunities available at developed facilities, such as campgrounds and trails, and at dispersed locations, such as dispersed camping areas and specially designated areas including Idaho roadless areas, the nearby FCRNRW, and suitable Wild and Scenic Rivers. Warm Lake is a destination for water-related recreation, such as boating and swimming. Backpacking and pack trips are popular in the Big Creek area and from trailheads into the FCRNRW. Fishing opportunities are available throughout the analysis area, particularly at Johnson Creek, Warm Lake, SFSR, and East Fork SFSR, for species such as salmon, steelhead, whitefish, and trout. There are numerous trails open to motorized use including in Idaho roadless areas. Snowmobiling is popular in the winter with groomed over-snow routes branching off plowed main roads. Additional details about recreation opportunities and facilities are presented in **Section 3.19**.

Tribal hunting, fishing, pasturing, and gathering rights, reserved by the respective treaties and executive orders, need no state regulations or permits to be exercised by tribal members. Federal agencies recognize that the Tribes regulate their own tribal members for hunting and fishing. Tribal members are not required to secure state hunting or fishing permits within Forest Service lands.

Air Quality

Specific data regarding air resources is located in **Section 3.3**. All lands within the air quality analysis area have been designated Class II for National Ambient Air Quality Standards (NAAQS). The air quality in the vicinity of the SGP is good to excellent because of its remote location, and relatively limited industrial activity in the area. Air quality is designated as in attainment for all NAAQS and Idaho Ambient Air Quality Standards.

Tribal concerns in relation to air quality include environmental and human health issues caused by air pollution, as well as concerns that air pollution reduces visibility which can impair cultural and ceremonial practices and reduce enjoyment of traditional use sites and special places.

Socioeconomics

Baseline information regarding socioeconomics is presented in **Section 3.21**. There is limited available published information on use of the analysis area by tribal members. A 2015 economic study (Peterson

2015) reported the impacts of five Tribes on Idaho's economy, including the Nez Perce Tribe, the Shoshone-Bannock Tribes, and the Shoshone-Paiute Tribes. The study notes that the Nez Perce Tribe's Fisheries Restoration Program is the largest in the U.S. (Peterson 2015). However, the report contains few other details relevant to the analysis area. The Nez Perce Tribe's DRFM operates Fisheries Restoration Programs in the vicinity of the SGP such as the Johnson Creek Artificial Propagation Enhancement Project and its associated research program. Annual funding for the project and research is approximately $1.5 million from a total annual operating budget of $22 million and utilizes DRFM's staff labor from the total group of 200 employees (Nez Perce Tribe 2020a). The project produces up to 110,000 Chinook salmon smolts annually for direct release into Johnson Creek while the research program examines smolt-to-adult return rates and the utilization of hatchery rearing of wild fish to supplement fish populations. There are additional tribal fisheries restoration efforts that include translocation of adult Chinook salmon from the SFSR to Meadow Creek. Spawning-ready adult Chinook salmon are periodically translocated from the SFSR to upstream of the Yellow Pine pit lake barrier with support from the Nez Perce Tribe.

Traditional tribal land use occurs throughout the analysis area. The Tribes' concerns include direct and indirect socioeconomic impacts from the loss of treaty-reserved rights as well as the losses resulting from the inability to engage in on-going fishery restoration activities in the area and restricted or denied harvest opportunities.

Environmental Justice

Environmental justice is considered to determine whether any disproportionately high and adverse human health or environmental effects to low-income, racial minority, and tribal populations may occur as a result of a federal action, in accordance with EO 12898. All three tribal reservations meet the definition of an environmental justice minority community based on their American Indian population and total minority population, which are meaningfully greater than Idaho's statewide averages (**Table 3.24-1**). They also represent a community with environmental justice concerns because the percentage of their residents with annual incomes below the federal poverty level is meaningfully greater than Idaho's statewide average (**Table 3.24-1**).

Table 3.24-1 Tribal Reservation versus State of Idaho Demographics

Geography	American Indian and Alaska Native	Total Minority[1]	Below Federal Poverty Level
State of Idaho	1.1%	18.0%	8.1%
Nez Perce CCD[2], Nez Perce County, Idaho	35.2%	48.4%	19.8%
Duck Valley Reservation[3]	83.9%	93.2%	32.3%
Fort Hall Reservation[3]	58.4%	73.4%	21.9%

Source: Census 2017 (most recent data for Nez Perce CCD, Duck Valley Reservation, Fort Hall Reservation), Census 2019 (State of Idaho)

[1] Total minority equals total population minus the Non-Hispanic White population.

[2] CCD = Census County Subdivision – A county subdivision delineated cooperatively by the Census and local government authorities.

[3] Census identified American Indian Reservation areas and populations.

EO 12898 directs federal agencies to consider patterns of subsistence hunting and fishing when an agency action may affect fish or wildlife. Communities of color, low-income communities, tribes, and other indigenous peoples depend on healthy aquatic ecosystems and the fish, aquatic plants, and wildlife that these systems support to a greater extent and in different ways than does the general population (National Environmental Justice Advisory Committee [NEJAC] 2002). These resources are important not only for subsistence but are vital for cultural, traditional, or religious reasons (NEJAC 2002). Contamination or depletion of streams, rivers, and associated resources can impact these groups' subsistence, economic, cultural, traditional, and religious practices. Details of the affected environment for wildlife and fish can be found in **Section 3.13 and 3.12**, respectively. Tribal harvest activities occur along the mainstem SFSR, Secesh River, Lick Creek, Johnson Creek, and the East Fork SFSR (Nez Perce Tribe 2019). There are tribal concerns that the wildlife and fisheries impacts would disproportionately affect the Tribes compared to the general population.

Traditional Land Uses and Features

Tribal lifeways are intrinsically place-based. Watersheds, rivers, tributaries, plant-community and mineral gathering areas, and campsites have been described in the Tribes' ethnographic studies (Battaglia 2018, 2023; Lahren 2020; Walker 2019). The ethnographies identify some point specific "traditional use sites" and during tribal consultations only a few specific sites have been identified. This is due mostly to privacy issues. It is known that the NFS lands were, and are, used for traditional subsistence practices such as hunting, fishing, and gathering and for traditional activities such as ceremonies and religious practices. To protect the privacy of the Tribes, these activities are discussed and analyzed in general terms.

Traditional activities are still practiced today across the Forests and central Idaho. Fish harvest occurs in the SFSR and its tributaries, including the Secesh River, Johnson Creek, and the East Fork SFSR. Within the Operations Area Boundary portions of the East Fork SFSR and Sugar Creek have been identified as usual and accustomed fishing places (Greiser 1998). Nez Perce Tribe harvest activities in the SFSR focus on hatchery returns to an adult weir and trap located in the vicinity of Warm Lake (Nez Perce 2017). Other tributaries in the SFSR and East Fork SFSR watersheds have been identified as usual and accustomed fishing areas. Many tribal members hunt, fish, and gather plants for subsistence and medicine, in addition to collecting algae, minerals, driftwood, and other Forest resources to maintain their traditional way of life, customs, and culture (Battaglia 2018, 2023; Lahren 2020; Walker 2019).

Traditional campsites have been identified in the ethnographic studies; these sites are often utilized for subsistence purposes and are located in the analysis area. These campsites often contain historic material culture or artifacts and are often recorded by Forest archaeologists as historic properties eligible for listing on the NRHP. Place names in Sahaptin or Numic languages are often associated with these types of sites along with other traditional locations, watershed, travel routes, and features on the landscape (Battaglia 2018, 2023; Lahren 2020; Walker 2019).

Culturally significant topographical features are not limited to, but include ridges, prominent points, and summits, such as Thunderbolt Mountain (8,658 feet amsl), Thunder Mountain (8,530 feet amsl) and the Meadow Creek Lookout area (8,830 feet amsl), where one can see the vast expanse of the landscape, including the rivers, creeks, and mountains. Undisturbed viewsheds and soundscapes are a critical component for tribal members' religious experiences that occur in these landscapes. Other notable

features identified in the ethnographies include rock features and structures and springs and hot springs (Battaglia 2018, 2023; Lahren 2020; Walker 2019).

The Tribes use the Salmon River and its tributaries for travel and sustenance. Prior to Euro-American contact, the Tribes utilized specific travel routes or trails through the area. Some of these traditional travel routes were later used by Euro-Americans and became part of the network of trails between historic mining districts and boom towns. Some of these trails have become a part of the Forest Service trail system, while others have been further developed into roads, such as the Old Thunder Mountain Road (FR 440), Johnson Creek Road (FR 413), and the Burnt Log Road (FR 414) (Battaglia 2018, 2023; Lahren 2020; Walker 2019).

3.24.4.5 Consultation to Date

The government-to-government relationship between federal agencies and federally-recognized tribes is a special relationship based on Tribal Sovereignty. The Forest Service is conducting government-to-government consultation regarding the SGP with the following federally-recognized tribes: the Nez Perce Tribe; Shoshone-Bannock Tribes; and the Shoshone-Paiute Tribes. This consultation process was initiated with the Tribes through a notification letter from the Forest Service offering opportunities to participate in formal government-to-government consultation, to participate in the NEPA process as a cooperating agency, to participate in the NHPA Section 106 programmatic agreement process, and/or to routinely receive information about the SGP.

The intergovernmental consultation process serves as the primary means for the federal agencies to carry out the United States' unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. Consultation is not a single event, but instead is an informed process leading to a decision. Although consultation is a formal legal process, consultation means different things to different tribes. It can be either a formal process of negotiation, cooperation, and policy-level decision-making between tribal governments and the federal government, or a more informal process. Tribal rights, ideas, and interests are discussed and considered or incorporated into the decision. Tribal consultation is an on-going relationship between agencies and Tribes, characterized by consensus-seeking approaches to reach mutual understanding and resolve issues. It may concern issues and actions that could affect the government's decision-making processes, or other tribal interests.

Consultation minimally serves five purposes:

- To identify and clarify issues;
- To provide for an exchange of existing information and identify where information is needed;
- To identify and serve as a process for conflict resolution;
- To provide an opportunity to discuss and explain the decision; and
- To recognize the unique legal relationship with Indian Tribal governments.

Because Native American tribes can be affected by the policies and actions of the Forest Service in managing the lands and resources under its jurisdiction, the Forest Service consults with them on matters affecting their interests. Because of this government-to-government relationship, efforts were made to involve local tribal governments and to solicit their input regarding the SGP.

The Forest Service first notified Nez Perce Tribe cultural resource staff about the SGP on March 1, 2017. Formal consultation with the Nez Perce Tribe was requested and initiated on May 23, 2017. The Nez Perce Tribe formalized opposition to the SGP in a resolution passed by the Nez Perce Tribal Executive Committee (the governing body of the Tribe) on October 9, 2018, and announced opposition in a press release the same day. Despite formal opposition to the SGP, the Tribe continues to participate in the project-specific informal consultation process, including discussion on ways to avoid, reduce, or mitigate impacts.

The Forest Service introduced the SGP to Shoshone-Paiute Tribes tribal leadership during the Wings and Roots Program meeting (government-to-government consultation) on April 13, 2017. The Shoshone-Paiute Tribes do not conduct informal consultation; however, they have meetings between the Tribal Business Council Chair and the Forest Service Line Officers, with other members of the Council and/or tribal staff occasionally attending as well.

The SGP was formally presented to the Shoshone-Bannock Tribes Fort Hall Business Council and also informally to tribal staff on July 26, 2017. The Shoshone-Bannock Tribes expressed interest in the Project. As a result, the Payette National Forest has engaged in formal and informal consultation on numerous occasions regarding aspects of the SGP and responded to Tribal comments on the DEIS and SDEIS.

Cultural studies also referred to as ethnographies were conducted by the Tribes to aid identification of historic properties, sacred sites or places, TCPs, and CLs in the analysis area and potentially to mitigate impacts to historic properties, sacred sites or places, TCPs, CLs, and other cultural resources of tribal interest (Battaglia 2018, 2023; Lahren 2020; Walker 2019).

Updates are provided to each of these Tribes in an ongoing basis during project-specific ad hoc staff to staff consultation meetings; and the Forest Service will continue to engage in government-to-government consultation throughout the NEPA process.

The structure of formal government-to-government consultation is between tribal governing bodies (Executive Committee, Tribal Councils, Tribal Chairperson, traditional Chiefs, or those identified formally by a Tribe's governing body as 'representative' of that Tribe's interests) and Forest Service Line Officers. Staff-to-staff meetings usually include Forest Service technical specialists, tribal liaisons, and technical specialists.

USACE has been represented in an informal capacity in one or more project-specific Forest Service consultation meetings with each of the Tribes, to offer information on the Clean Water Act Section 404 permitting process.

The Nez Perce Tribe, Shoshone-Paiute Tribes, and Shoshone-Bannock Tribes were invited on April 30, 2020, to participate in development of a project-specific programmatic agreement (PA) and associated

historic properties treatment plan and historic properties management plan, which are being prepared to mitigate potential impacts to heritage resources and address compliance with Section 106 of the NHPA.

In January 2022, the Nez Perce Tribe and the Shoshone-Paiute Tribes held respective government-to-government meetings with the Forest Service to discuss the tribal interests analysis area, areas of potential effect for the Section 106 of the NHPA, the PA process, the project timeline, and current status.

There have been ongoing staff to staff and government to government meetings between the Forest Service and the Tribes. A table summarizing consultation and coordination efforts from the beginning of the NEPA process, including communications associated with Section 106 of the NHPA, is provided in Appendix A of the SGP Tribal Rights and Interests Specialist Report (Forest Service 2023q).

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