

## 4.15 LAND USE AND LAND MANAGEMENT

### 4.15.1 Effects Analysis Indicators and Methodology of Analysis

The analysis of effects to land use and land management includes the following issues and indicators:

**Issue:** The Stibnite Gold Project (SGP) would cause changes in land use or land management.

**Indicators:**

- Acres of land used for SGP components by land management agency.
- Acres of total and new land disturbance within SGP area.

**Issue:** The SGP would cause changes in or create new rights-of-way (ROWs) or easements.

**Indicators:**

- Miles or acres of new or changed ROWs or easements, regardless of jurisdiction.

Land use and land management were analyzed using geographic information system spatial analyses, U.S. Forest Service (Forest Service) land and resources management plans, the Valley County Comprehensive Plan, and information and analysis documented in reports prepared for the SGP.

### 4.15.2 Direct and Indirect Effects

The following analysis of effects associated with land use and land management is considered in the context of land use in the overall SGP area that is encompassed by all action alternatives. The analysis discusses impacts to land use and land management that would result from the implementation the SGP. Where applicable, the SGP phase in which the impacts would occur also is discussed. Elements of the overall SGP context for land use and land management include:

- Land management, including National Forest System (NFS), State of Idaho, Bureau of Reclamation, and private lands, as well as patented and unpatented mining claims; and
- Land use in the SGP area (mine site, access roads, utilities, and off-site facilities), including other land uses that may occur on public and private lands.

#### 4.15.2.1 Alternative 1

Alternative 1 components and land management are shown in **Figure 2.3-1**.

### 4.15.2.1.1 LAND MANAGEMENT

Under Alternative 1, the SGP footprint would occupy approximately 3,533 acres. NFS lands would comprise approximately 2,566 acres, or 73 percent, of the total area, of which 1,645 acres would be Payette National Forest (PNF)-administered lands and 921 acres would be Boise National Forest (BNF)-administered lands. Approximately 880 acres (25 percent) would be private lands, including lands owned by Midas Gold Idaho, Inc. (Midas Gold), and 62 acres (2 percent) would be public lands administered by the State of Idaho. Approximately 25 acres (1 percent) would be federal public lands administered by the Bureau of Reclamation.

**Table 4.15-1** shows land management and acreage by major component.

**Table 4.15-1 Alternative 1 Land Management and Acreage by Component**

<b>Component Subtotal</b>	<b>Private</b>	<b>State</b>	<b>Boise National Forest</b>	<b>Payette National Forest<sup>3</sup></b>	<b>Bureau of Reclamation</b>	<b>Total Acres</b>
Mine Site Subtotal	557	0	0	1,413	0	1,970
Access Roads Subtotal	10	0	395	140	0	545
Utilities Subtotal <sup>1</sup>	288	62	523	92	25	990
Off-site Facilities Subtotal	25	0	3	0	0	28
Total <sup>2</sup>	880	62	921	1,645 <sup>4</sup>	25	3,533

Table Source: AECOM 2020

Table Notes:

- 1 Utilities acreages include upgrades to utilities that are part of the Connected Actions.
- 2 Subtotals may not add to totals due to rounding.
- 3 Approximately 65 acres associated with surface exploration pads and temporary roads (mine site component) have unknown land management breakdown, because the exact locations of these exploration areas are not yet known; however, these are included in the PNF mine site subtotal.
- 4 Approximately 5 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest.

### 4.15.2.1.2 LAND USE

#### 4.15.2.1.2.1 Mine Site

Portions of the mine site have been subject to mining activities for over a century. The mine site footprint under Alternative 1 would occupy approximately 1,970 acres, 913 acres of which is historic disturbance and 1,057 acres of which would be new disturbance. Patented and unpatented mining claims are located in the analysis area, including within the mine site and throughout other areas of the Alternative 1 footprint. Under Alternative 1, SGP construction and operations would take place on approximately 2,215 acres of patented and unpatented mining claims (**Table 4.15-2**). This area includes approximately 567 acres of patented mining claims (private land) and approximately 1,648 acres of unpatented mining claims on NFS land (**Table 4.15-2**).

**Table 4.15-2 Alternative 1 Patented and Unpatented Mining Claims**

Patented Claims (Acres)	567
% Patented Claims	26%
Unpatented Claims (Acres)	1,648
% Unpatented Claims	74%
Total Area (Acres)	2,215

Table Source: AECOM 2020

The mine site and its immediate surroundings are highly disturbed by past mining activities and show evidence of long-term mining operations as a dominant land use. However, development of the mine site has not occurred in this location at the scale proposed for Alternative 1, and the SGP footprint would extend beyond areas that have been previously disturbed from mining activity. Implementation of Alternative 1 would change the land use from an area that has been intermittently disturbed and reclaimed (in some areas), to an expanded area of industrial development.

Public access to and through the mine site is currently allowed and used for dispersed recreation, as well as access to surrounding areas for recreation. During construction and operation of Alternative 1, public use would not be allowed within the Operations Area Boundary (see **Figure 2.3-1**). As discussed in Section 4.19.2.1, Direct and Indirect Effects of Alternative 1 on Recreation, approximately 13,446 acres of NFS lands within the Operations Area Boundary would be inaccessible to dispersed recreation during construction and operation of Alternative 1. Public access to the mine site also is used for timber harvest and designated tribal uses. See Section 4.14.2.1, Direct and Indirect Effects to Timber, and Section 4.24.2, Direct and Indirect Effects, Tribal Rights and Interests, for a more detailed discussion on how public access restrictions under Alternative 1 would impact land use for these resources.

Alternative 1 would expand on the past land use of mining and would restrict public access. This change in land use would be considered a direct impact. The duration of direct impacts to land use would be the approximately 20-year life of the SGP. Following closure and reclamation of the mine, land use would be restored to its current use (except at the development rock storage facilities and tailings storage facility [TSF]), with a landscape evident of past mining activity but open for public access for dispersed recreation and access to surrounding areas.

#### **4.15.2.1.2.2 Access Roads**

During the initial 1- to 2-year construction period, access to the mine site under Alternative 1 would use the current existing route (Yellow Pine Route) until the Burntlog Route is completed. For the remainder of the life of the mine, access would be via the Burntlog Route.

An off-highway vehicle (OHV) connector trail would be constructed from an improved transmission line access road to Meadow Creek Lookout Road (National Forest System Road [FR] 51290) and would be open to all vehicles. Over-snow vehicle (OSV) trail access would be

maintained during construction through a new temporary groomed OSV trail adjacent to the western side of Johnson Creek Road (County Road 10-413) from Landmark to Trout Creek. Due to year-round access to the mine site along the Burntlog Route, an existing, approximately 11-mile groomed OSV route from Warm Lake to Landmark would be closed. The Cabin Creek Road Groomed OSV Route would be constructed with minor upgrades to approximately 10.4 miles of the existing Cabin Creek Road (FR 467), as well as a 1.5-mile segment of a groomer access trail from the Forest Service Warm Lake Project Camp.

### ***Existing Roads***

Land use along the Yellow Pine Route, existing segments of the Burntlog Route, and the OSV groomed routes includes roadway uses on private and NFS land. Improvements to existing access roads could indirectly alter land use in areas adjacent to roadways through increased vehicle use and recreational access, beginning during construction (see Section 4.16, Access and Transportation, and Section 4.19, Recreation).

Closure of the existing 11-mile OSV route under Alternative 1 would convert the land use from mainly recreation to mining land use. These changes in land use would be considered direct impacts. The duration of direct and indirect impacts to land use would be experienced during construction and operation and would be reclaimed after mine closure.

### ***New Roads***

Construction of the new roads under Alternative 1 would result in a change in use of approximately 300 combined acres of NFS and private land to roadway and trail uses. The Burnt Log Road (FR 447) extension for the Burntlog Route would result in a change of approximately 239 acres of NFS land, the OHV connector trail would result in a change of approximately 5 acres of NFS land, and access roads to the very high frequency (VHF) repeater sites and cell towers would result in a change of approximately 10 acres of NFS land and less than one acre of private land. The temporary Johnson Creek groomed OSV trail and Cabin Creek Road groomed OSV trail would result in a change in use of approximately 14 acres and 31 acres of NFS lands, respectively.

The new section of Burntlog Route, OHV trail, OSV trails, and VHF access roads would be authorized under 36 Code of Federal Regulations (CFR) 228A as a part of a plan of operations. The new roadway segments are considered a direct effect to NFS land use, resulting in a total change of approximately 300 acres of NFS land.

The construction and operation of the new extension of Burnt Log Road (FR 447) for the Burntlog Route would introduce new motorized access to an area where it currently does not exist. Recreational use and recreational special use areas adjacent to new roadway segments outside of the Operations Area Boundary could expand due to increased incidental public access. Collectively, these changes in land use would be considered an indirect impact. These indirect impacts would be experienced during construction, operation, and closure and reclamation of the mine site under Alternative 1.

Both the new OHV connector and the OSV groomed trails would introduce new recreational uses to the SGP area. These new recreational land uses would be considered a direct impact. Indirect impacts may result if new areas are accessed via these routes. The duration of these impacts would be during construction and operation of Alternative 1, and these roadways would be reclaimed following closure of the mine site.

#### **4.15.2.1.2.3 Utilities**

##### ***Transmission Lines***

Alternative 1 would require upgrading existing 12.5-kilovolt (kV) and 69-kV transmission lines to a 138-kV system, and building 8.5 miles of new transmission line from the new Johnson Creek Substation to the mine site. Existing roads and approximately 4 miles of new spur roads would be used for access during construction and maintenance of the transmission line.

##### **Transmission Line Upgrade**

Approximately 63 miles of existing transmission line would require upgrading to a 138-kV system. Transmission line upgrades would involve replacement of existing structures with taller structures and widening the existing ROW to a width of 100 feet. The transmission line upgrade would result in a change of approximately 136 combined acres of land from undeveloped to utility use (**Table 4.15-3**).

Approximately 100 acres of the transmission line ROW associated with the upgrade would be on NFS lands. Idaho Power Company's (IPCo's) existing transmission line, its ROW, and access roads are currently authorized under the BNF special use permit #CAS400128. Upgrading the transmission line would require the BNF to amend the existing IPCo special use permit.

Approximately 26 acres of the transmission line ROW associated with the upgrade would be on private land in Valley County and would be associated with two Valley County land use designations: rural and city areas of impact. Construction of the transmission line upgrade on private land would require a conditional use permit from Valley County.

Approximately 8 acres of the transmission line ROW associated with the upgrade would be on state land. A new or amended easement would be required for the expansion of the ROW width to accommodate the upgraded transmission line. The existing transmission line is authorized to IPCo, and a portion of this ROW intersects State Endowment Lands. The Idaho Department of Lands (IDL) is responsible for granting or modifying the transmission line ROW on state-owned lands.

Approximately 3 acres of the transmission line ROW associated with the upgrade would be on Bureau of Reclamation land. Upgrading the transmission line would require the Bureau of Reclamation to amend the existing IPCo special use permit.

### New Electric Transmission

Between the new Johnson Creek Substation and the mine site, approximately 8.5 miles of new 138-kV transmission line would be constructed. The ROW for the new transmission line would be approximately 100 feet wide. The new ROW corridor is considered a direct effect to land use, changing these areas to a utility use during construction, operation, and closure and reclamation. The ROW required for the new transmission line segment would result in a land use change of approximately 84 acres (assuming a final ROW width of 100 feet) of NFS and private land (**Table 4.15-3**) and would cross private lands and NFS lands administered by the PNF and BNF.

**Table 4.15-3 Alternative 1 Acres of ROWs Required for Upgrading and New Transmission Line ROWs**

<b>Land Management</b>	<b>Transmission Line ROW (Existing)</b>	<b>Transmission Line ROW (Upgrade)</b>	<b>Transmission Line ROW (New)</b>
Private	102	26	10
<i>% Private</i>	32%	19%	11%
State	18	8	0
<i>% State</i>	6%	6%	0%
NFS	190	100	74
<i>% NFS</i>	59%	73%	89%
Bureau of Reclamation	11	3	0
<i>% Bureau of Reclamation</i>	3%	2%	0%
Total Area (Acres) <sup>1</sup>	321	136	84

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

ROW = right-of-way.

Approximately 74 acres of the new transmission line ROW would be required on NFS lands. The new ROW would be authorized under 36 CFR 228A, Subpart A as a part of a plan of operations. Approximately 10 acres of a new ROW on private lands in Valley County would be associated with two Valley County land use designations: rural, and city areas of impact. Construction of the new transmission line ROW on private land would require a conditional use permit from Valley County.

The authorization of a new transmission line ROW would result in a land use change in the footprint of the ROW, as lands are converted from undeveloped forest land to a managed ROW. Recreational use and recreational special use areas adjacent to a new ROW could change due to increased access from new maintenance access roads. Changes in land use because of the new transmission line ROW would result in both direct and indirect impacts to land uses under Alternative 1. Direct effects to land use would be approximately 84 acres. Indirect impacts would

be experienced through the conversion of undeveloped land in the SGP area that is commonly used for recreational, tribal, and other special uses. The duration of impacts would last through construction and operation, and continue post-closure until power is no longer needed at the mine site and the transmission line is reclaimed.

The duration of direct and indirect impacts to land use would last through construction and operation of the new transmission line. After mine closure activities requiring power are complete, the 8.5 miles of new transmission line, from the Johnson Creek Substation to the mine site, would be disassembled. The ROW from Johnson Creek Substation to the mine site and spur roads used to access power pole structures would be recontoured to match surrounding topography and revegetated. Land use in the ROW would be returned to undeveloped NFS and private lands after reclamation is complete. The upgraded transmission line from Lake Fork to the Johnson Creek substation would be retained and used by IPCo; therefore, the direct impact to land use along this ROW would continue beyond the life of the SGP until such time that IPCo decommissions the line.

### ***Electrical Substations***

The Johnson Creek substation would be built near the Johnson Creek airstrip on NFS lands, and would provide upgraded electricity to the mine site. The Mine Site substation would be constructed at the mine site to step-down voltage for distribution, and would be located on private lands (less than 1 acre within the mine site disturbance footprint). The Johnson Creek substation would be on NFS land (less than 1 acre). Construction and operation of the Johnson Creek substation would be managed under a Forest Service Special Use permit, and construction and operation of the Mine Site substation on private land may require a conditional use permit from Valley County.

Land use would change to accommodate the more industrial land use of the substations. This change in land use is considered a direct impact that would last through construction and operation, and would be reclaimed post-closure.

### ***Communication Towers and Repeater Sites***

Under Alternative 1, existing communication facilities would be expanded using a two-way, rapid communication system. The existing microwave relay tower on private land to the east of the mine site would be upgraded, but the area of disturbance would not change. The two-way radio system would be supported by a series of repeaters placed on public and private land. To maintain communications along the entire Burntlog Route, 10-foot-tall, VHF radio repeaters on 3-foot by 3-foot concrete pads would be placed near the existing Meadow Creek Lookout and Thunderbolt Lookout communication sites, the new Landmark Maintenance Facility, and on private parcels at the mine site, as needed. As an alternative to these locations, a combination of repeaters could be placed at a high point near the Trapper Creek/Burnt Log Road (FR 447) intersection, near the West End communications facility, and at the Landmark Maintenance Facility. No additional disturbance for equipment installation or access would be required. Additionally, a cell tower would be installed to facilitate safety and emergency communications. The disturbance area for the tower would be approximately 30 feet by 60 feet, including all

required equipment, and would be near the Meadow Creek Lookout, on a summit east of Blowout Creek drainage, or near the proposed transmission line alignment upslope of the proposed Hangar Flats pit.

Although these communication sites would have small disturbance footprints (less than 0.1 acre each), they would be considered changes in land use from undeveloped to utility use. This change in land use is considered a direct impact that would last throughout construction and operation. Upon closure of the mine site, any communication facilities would be decommissioned and removed, and the ground would be contoured to blend into surrounding terrain.

#### **4.15.2.1.2.4 Off-site Facilities**

The Stibnite Gold Logistics Facility would be built on private land along Warm Lake Road and would require approximately 25 acres of disturbance. It would alter land use in this area from undeveloped land to developed land. This change in land use would be considered a direct impact of Alternative 1. The duration of these impacts would be the life of the SGP (approximately 20 years), and it would be returned to undeveloped land post-reclamation or sold and repurposed.

The Landmark Maintenance Facility would be near the intersection of Warm Lake and Johnson Creek roads on approximately 3 acres of NFS land. Operation of these facilities on NFS lands would be authorized under 36 CFR 228A as a part of a plan of operations. The off-site facilities would be considered a change in land use from open space to developed land. This change in land use would last through construction and operation, and would be returned to open space post-reclamation.

#### **4.15.2.1.2.5 Other Land Uses**

Construction of new infrastructure such as the mine site (1,057 acres), access roads (431 acres), utilities (84 acres), and off-site facilities (28 acres) would result in a change of approximately 1,600 acres of previously undisturbed private, state, NFS, and Bureau of Reclamation land. The conversion of land for these mining uses in the SGP area would decrease the amount of land available for other uses such as agriculture, fisheries, timber harvests, tribal uses, and recreation. These impacts would be experienced during construction and operation, and all areas except for the upgraded transmission line would be reclaimed post-closure.

### **4.15.2.2 Alternative 2**

Alternative 2 includes modifications to the proposed operations described under Alternative 1. Modifications with the potential to impact land use and land management include rerouting a segment of the Burntlog Route, constructing a new public access road through the mine site, changing the location of the Landmark Maintenance Facility, and rerouting the transmission line in two locations. Alternative 2 SGP components and land management are shown in **Figure 2.4-1**.

### 4.15.2.2.1 LAND MANAGEMENT

Under Alternative 2, the SGP area would occupy approximately 3,423 acres. NFS lands would comprise approximately 2,473 acres, or 72 percent, of the SGP area, of which 1,542 acres would be PNF-administered lands and 931 acres would be BNF-administered lands. Approximately 854 acres (25 percent) would be private lands, including lands owned by Midas Gold, and 76 acres (2 percent) would be administered by the State of Idaho. Approximately 19 acres (1 percent) would be administered by the Bureau of Reclamation. **Table 4.15-4** shows land management and acreage by major component.

**Table 4.15-4 Alternative 2 Land Management and Acreage by Component**

<b>Component Subtotal</b>	<b>Private</b>	<b>State</b>	<b>Boise National Forest</b>	<b>Payette National Forest<sup>3</sup></b>	<b>Bureau of Reclamation</b>	<b>Total Acres</b>
Mine Site Subtotal	554	0	0	1,325	0	1,879
Access Roads Subtotal	10	0	394	125	0	529
Utilities Subtotal <sup>1</sup>	265	76	532	92	19	985
Off-site Facilities Subtotal	25	0	5	0	0	30
Total <sup>2</sup>	854	76	931	1,542 <sup>4</sup>	19	3,423

Table Source: AECOM 2020

Table Notes:

- 1 Utilities acreages include upgrades to utilities that are part of the Connected Actions.
- 2 Subtotals may not add to totals due to rounding.
- 3 Approximately 65 acres associated with surface exploration pads and temporary roads (mine site component) have unknown land management breakdown because the exact locations of these exploration areas are not yet known; however, these are included in the PNF mine site subtotal.
- 4 Approximately 5 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest.

### 4.15.2.2.2 LAND USE

#### 4.15.2.2.2.1 Mine Site

The mine site footprint under Alternative 2 would occupy approximately 1,879 acres, and would create approximately 991 acres of new disturbance at the mine site. Mining methods as outlined for Alternative 1 would not change under Alternative 2, except a Centralized Water Treatment Plant would be included in the Alternative 2 mine site footprint. Patented and unpatented mining claims in the SGP area are located both in the mine site and in the overall Alternative 2 footprint. Alternative 2 construction and operations would take place on approximately 564 acres of patented mining claims, and approximately 1,515 acres of unpatented mining claims (**Table 4.15-5**) on NFS land.

**Table 4.15-5 Alternative 2 Patented and Unpatented Mining Claims**

Patented Claims (Acres)	564
% Patented Claims	27%
Unpatented Claims (Acres)	1,515
% Unpatented Claims	73%
Total Area (Acres)	2,079

Table Source: AECOM 2020

Impacts to land use during construction, operation, and post-closure at the mine site under Alternative 2 would be the same as those described under Alternative 1.

#### **4.15.2.2.2 Access Roads**

Under Alternative 2, access to the mine site via the Burntlog Route would be provided as described in Alternative 1, except for an approximately 5.3-mile section in the Riordan Creek drainage. This Burntlog Route segment would be relocated to the southern side of the Riordan Creek drainage and would be shortened by approximately 1.3 miles. Restriction of public access within the Operations Area Boundary also would be the same as Alternative 1, except a new public access road would be constructed through the mine site to link the Stibnite Road portion of the McCall-Stibnite Road (CR 50-412) to Thunder Mountain Road (FR 50375) using one of two options as described in Section 2.4.4.2, Public Access.

#### ***Existing Roads***

Impacts to land use along the Yellow Pine Route and the OSV groomed trails would be the same as described in Alternative 1. Impacts from improvements to existing access roads would be the same as those discussed under Alternative 1.

#### ***New Roads***

Construction of new roads under Alternative 2 would result in a land use change of approximately 301 combined acres of NFS and private land. The relocated section of Burntlog Route would result in a land use change of approximately 222 acres of NFS land, and the new public access road through the mine site would result in a land use change of approximately 18 acres of NFS and private land. The OHV connector trail, access roads to the VHF repeater sites and cell towers, temporary Johnson Creek groomed OSV trail, and Cabin Creek Road groomed OSV trail would result in the same impacts as those described under Alternative 1.

The new section of Burntlog Route, the OHV trail, public access road, temporary Johnson Creek groomed OSV trail, Cabin Creek Road groomed OSV trail, and VHF access roads would be authorized under 36 CFR 228A as a part of a plan of operations. The new roadway segments are considered a direct effect to land use, resulting in a total change of approximately 298 acres of NFS land, including 222 acres for the Burntlog Route, 5 acres for the OHV trail, 16 acres for

the public access road, 14 acres for the temporary Johnson Creek groomed OSV trail, 31 acres for the Cabin Creek Road groomed OSV trail, and 10 acres for the VHF access roads.

The duration of these impacts would be during construction and operation of Alternative 2. All new roadway segments would be reclaimed following closure of the mine site. Indirect impacts to land uses such as motorized access, recreation, and timber harvests would be the same as those described under Alternative 1.

#### **4.15.2.2.2.3 Utilities**

##### ***Transmission Lines***

Alternative 2 would include rerouting the transmission line in two locations. Approximately 5.4 miles of the upgraded transmission line would be rerouted to avoid the Thunder Mountain Estates subdivision, and approximately 0.9 mile of the upgraded transmission line would be rerouted to use an abandoned railroad grade. Approximately 8.5 miles of new transmission line would be required for Alternative 2 from the Johnson Creek substation to the mine site. The addition of the Centralized Water Treatment Plant under Alternative 2 would require the new transmission line to remain in perpetuity for Water Treatment Plant operations.

##### **Transmission Line Upgrade**

The upgraded transmission line under Alternative 2 would impact 129 total acres (**Table 4.15-6**). Approximately 33 miles of transmission line would require upgrading. Transmission line upgrades are assumed to require a total ROW width of 100 feet. The transmission line upgrade would result in a change of approximately 129 combined acres of land from undeveloped to utility use, including 20 acres of private land, 100 acres of NFS land, 7 acres of state land, and 3 acres of Bureau of Reclamation land (**Table 4.15-6**).

Approximately 100 acres of the transmission line ROW associated with the upgrade would be on NFS lands. Upgrading the transmission line would require the Forest Service to amend the existing IPCo special use permit.

Approximately 20 acres of the transmission line ROW associated with the upgrade would be on private land in Valley County and would be associated with two Valley County land use designations: rural and city areas of impact. Construction of the transmission line upgrade on private land would require a conditional use permit from Valley County.

Approximately 7 acres of the transmission line ROW associated with the upgrade would be on state land. A new or amended easement would be required for the expansion of the ROW width to accommodate the upgraded transmission line. 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.

Approximately 3 acres of the transmission line ROW associated with the upgrade would be on Bureau of Reclamation land. Upgrading the transmission line would require the Bureau of Reclamation to amend the existing IPCo special use permit.

**New Electric Transmission**

A new ROW authorization for the 8.5 miles of new transmission line is considered a direct effect to land use. The ROW required for the new transmission line segment would disturb approximately 105 acres (assuming a final width of 100 feet) of NFS, private, and state land (**Table 4.15-6**).

Approximately 80 acres of the new transmission line ROW would be required on NFS lands. The new ROW on NFS land would be authorized under 36 CFR 228A as a part of a plan of operations.

Approximately 13 acres of a new ROW on private lands in Valley County would be associated with two Valley County land use designations: rural, and city areas of impact. A ROW authorization on private land would require a conditional use permit from Valley County.

Approximately 11 acres of the new transmission line ROW would be on state-administered lands. A new easement would be required for the expansion of the ROW to accommodate the new transmission line. The IDL is responsible for granting or modifying the transmission line ROW on state-owned lands, if required.

**Table 4.15-6 Alternative 2 Acres of ROWs Required for Upgrading and New Transmission Line ROWs**

<b>Land Management</b>	<b>Transmission Line ROW (Existing)</b>	<b>Transmission Line ROW (Upgrade)</b>	<b>Transmission Line ROW (New)</b>
Private	84	20	13
<i>% Private</i>	28%	16%	13%
State	18	7	11
<i>% State</i>	6%	6%	11%
NFS	189	100	80
<i>% NFS</i>	63%	77%	77%
Bureau of Reclamation	8	3	<1
<i>% Bureau of Reclamation</i>	3%	2%	0%
Total Area (Acres) <sup>1</sup>	299	129	105

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

ROW = right-of-way.

Changes in land use from the new transmission ROW would be the same as described under Alternative 1; however, direct impacts would be experienced in perpetuity, because the transmission line would remain in operation for the Centralized Water Treatment Plant.

### ***Electrical Substations***

Land use impacts from the electrical substations in Alternative 2 would be the same as those described under Alternative 1, except the existing Cascade switching substation would be located along Warm Lake Road.

### ***Communication Towers and Repeater Sites***

Land use impacts from communication towers and repeater sites would be the same as those described under Alternative 1.

#### **4.15.2.2.4 Off-site Facilities**

Land use impacts from off-site facilities would be the same as those described under Alternative 1. Alternative 2 would include the new construction of a Burntlog Maintenance Facility; however, it would be within the disturbance limits of one of the Burntlog Route borrow sources and would not create additional changes to anticipated land use impacts.

#### **4.15.2.2.5 Other Land Uses**

Alternative 2 direct and indirect impacts to other land uses would be the same as those discussed under Alternative 1; however, construction of new infrastructure such as the mine site (991 acres), access roads (431 acres), utilities (105 acres), and off-site facilities (30 acres) would result in an overall change of 1,557 acres of previously undisturbed private, state, NFS, and Bureau of Reclamation land.

### **4.15.2.3 Alternative 3**

Alternative 3 includes modifications to the proposed operations as described under Alternative 1. Modifications with the potential to impact land use and land management include relocating the Meadow Creek TSF and Hangar Flats development rock storage facility to the East Fork South Fork Salmon River drainage, which would require relocating all associated facilities, the worker housing facility, and a portion of the new transmission line. The Burntlog Route would remain as the mine access road and a segment would be rerouted through Blowout Creek valley to accommodate the TSF relocation. Alternative 3 SGP components and land management are shown in **Figure 2.5-1**.

#### **4.15.2.3.1 LAND MANAGEMENT**

Under Alternative 3, the SGP area would occupy approximately 3,610 acres. Approximately 833 acres (23 percent) would be private lands, including lands owned by Midas Gold, and 62 acres (2 percent) would be administered by the State of Idaho. NFS lands would comprise approximately 2,689 acres, or 74 percent, of the SGP area (1,754 acres on PNF-administered lands and 935 acres on BNF-administered lands). Approximately 25 acres (1 percent) would be

administered by the Bureau of Reclamation. **Table 4.15-7** shows land management and acreage by major component.

**Table 4.15-7 Alternative 3 Land Management and Acreage by Component**

<b>Component Subtotal</b>	<b>Private</b>	<b>State</b>	<b>Boise National Forest</b>	<b>Payette National Forest<sup>3</sup></b>	<b>Bureau of Reclamation</b>	<b>Total Acres</b>
Mine Site Subtotal	511	0	0	1,560	0	2,071
Access Roads Subtotal	10	0	408	102	0	521
Utilities Subtotal <sup>1</sup>	287	62	524	92	25	990
Off-site Facilities Subtotal	25	0	3	0	0	28
Total <sup>2</sup>	833	62	935	1,754 <sup>4</sup>	25	3,610

Table Source: AECOM 2020

Table Notes:

- 1 Utilities acreages include upgrades to utilities that are part of the Connected Actions.
- 2 Subtotals may not add to totals due to rounding.
- 3 Approximately 65 acres associated with surface exploration pads and temporary roads (mine site component) have unknown land management breakdown because the exact locations of these exploration areas are not yet known; however, these are included in the PNF mine site subtotal.
- 4 Approximately 19 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest.

#### **4.15.2.3.2 LAND USE**

##### **4.15.2.3.2.1 Mine Site**

The mine site footprint under Alternative 3 would occupy approximately 2,071 acres, and would create approximately 1,227 acres of new disturbance at the mine site. Alternative 3 would relocate the TSF and Hangar Flats development rock storage facility from the Meadow Creek drainage, to the East Fork South Fork Salmon River drainage. Impacts to land management is not expected from this relocation because both locations are on NFS land, partially managed as inventoried roadless areas (IRAs).

Patented and unpatented mining claims in the SGP area are located both within the mine site and in the overall Alternative 3 footprint. Alternative 3 mining operations would take place on approximately 520 acres of patented mining claims, and approximately 1,770 acres of unpatented mining claims (**Table 4.15-8**).

Impacts to land use during construction, operation, and post-closure at the mine site under Alternative 3 would be the same as those described under Alternative 1.

**Table 4.15-8 Alternative 3 Patented and Unpatented Mining Claims**

Patented Claims (Acres)	520
% Patented Claims	23%
Unpatented Claims (Acres)	1,770
% Unpatented Claims	77%
Total Area (Acres) <sup>1</sup>	2,291

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

### **4.15.2.3.2.2 Access Roads**

Under Alternative 3, the Burntlog Route would remain as the mine access road, but an approximately 3.2-mile-long segment would be rerouted through Blowout Creek valley. There would be no public access through the mine site during operations, but the Burntlog Route would connect to Meadow Creek Lookout Road and could provide access around the mine site. The OHV Connector from the Horse Heaven/transmission line route to Meadow Creek Lookout Road would not be constructed. The temporary Johnson Creek groomed OSV trail, Cabin Creek Road groomed OSV trail, and Yellow Pine Route would be the same as described for Alternative 1.

#### ***Existing Roads***

Impacts to land use along the Yellow Pine Route, existing segments of the Burntlog Route, and the OSV groomed trails would be the same as described in Alternative 1. Impacts from improvements to existing access roads also would be the same as those discussed under Alternative 1.

#### ***New Roads***

Construction of the new roads under Alternative 3 would result in a land use change of approximately 386 combined acres on NFS and private land. The rerouted Burntlog Route segment would result in a land use change of approximately 331 acres of NFS land. Access roads to the VHF repeater sites and cell towers would result in a land use change of approximately 10 acres of private and NFS land. Improvements to the temporary Johnson Creek groomed OSV trail and Cabin Creek Road groomed OSV trail would result in a change of approximately 14 acres and 31 acres of NFS land; respectively.

The new section of the Burntlog Route, temporary Johnson Creek groomed OSV trail, VHF access roads, and Cabin Creek Road groomed OSV trail would be authorized under 36 CFR 228A as a part of a plan of operations. The new roadway segments are considered a direct effect to NFS land use, resulting in a total change of approximately 386 acres of NFS lands.

The duration of these impacts would last through construction and operation of Alternative 3. The roadway segments would be reclaimed following closure of the mine site. Indirect impacts to land uses such as motorized access, recreation, and timber harvests would be the same as those described under Alternative 1.

#### **4.15.2.3.2.3 Utilities**

##### ***Transmission Line***

Alternative 3 would realign approximately 2.5 miles of the new transmission line from the Johnson Creek substation to the mine site through an existing corridor between the Horse Heaven and Meadow Creek IRAs.

##### **Transmission Line Upgrade**

The upgraded transmission line under Alternative 3 would result in the same acreage impacts as Alternative 1 (**Table 4.15-9**).

##### **New Electric Transmission**

Approximately 10.8 miles of new transmission line would be constructed for Alternative 3. The new ROW corridor is considered a direct effect to land use. The ROW required for the new transmission line segment would result in a change of approximately 101 acres (assuming a final width of 100 feet) of NFS and private land (**Table 4.15-9**). The new ROW on NFS land would be authorized under 36 CFR 228A as a part of a plan of operations.

Approximately 11 acres of a new ROW on private lands in Valley County would be associated with two Valley County land use designations: rural, and city areas of impact. The ROW authorization on private land would require a conditional use permit from Valley County.

Changes in land use because of the new transmission ROW would be the same as described under Alternative 1. The duration of direct impacts and reclamation efforts also would be the same as those described under Alternative 1.

##### ***Electrical Substations***

Land use impacts from electrical substations in Alternative 3 would be the same as those described under Alternative 1.

##### ***Communication Towers and Repeater Sites***

Land use impacts from communication towers and repeater sites would be the same as those described under Alternative 1.

**Table 4.15-9 Alternative 3 Acres of ROWs Required for Upgrading and New Transmission Line ROWs**

<b>Land Management</b>	<b>Transmission Line ROW (Existing)</b>	<b>Transmission Line ROW (Upgrade)</b>	<b>Transmission Line ROW (New)</b>
Private	102	26	11
<i>% Private</i>	32%	19%	11%
State	18	8	<1
<i>% State</i>	6%	6%	0%
NFS	190	100	90
<i>% NFS</i>	59%	73%	89%
Bureau of Reclamation	11	3	0
<i>% Bureau of Reclamation</i>	3%	2%	0%
Total Area (Acres) <sup>1</sup>	321	136	101

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

ROW = right-of-way.

#### **4.15.2.3.2.4 Off-site Facilities**

Land use impacts from off-site facilities would be the same as those described under Alternative 1.

#### **4.15.2.3.2.5 Other Land Uses**

Alternative 3 direct and indirect impacts to other land uses would be the same as those discussed under Alternative 1; however, construction of new infrastructure, such as the mine site (1,227 acres), access roads (517 acres), utilities (101 acres), and off-site facilities (28 acres) would result in an overall change of 1,873 acres of previously undisturbed private, state, NFS, and Bureau of Reclamation land.

### **4.15.2.4 Alternative 4**

Alternative 4 includes modifications to the proposed operations described under Alternative 1. Modifications with the potential to impact land use and land management include not constructing the Burntlog Route, using Yellow Pine Route throughout the life of the mine, not constructing the OHV Connector trail or access roads to the communications towers, and relocating the maintenance facility. Alternative 4 SGP components and land management are shown in **Figure 2.6-1**.

#### **4.15.2.4.1 LAND MANAGEMENT**

Under Alternative 4, the SGP area would occupy approximately 3,219 acres. Approximately 884 acres (27 percent) would be private lands, including lands owned by Midas Gold, and

4 ENVIRONMENTAL CONSEQUENCES  
 4.15 LAND USE AND LAND MANAGEMENT

62 acres (2 percent) would be administered by the State of Idaho. NFS lands would comprise approximately 2,247 acres, or 70 percent, of the SGP area (1,553 acres on PNF-administered lands and 694 acres on BNF-administered lands). Approximately 25 acres (1 percent) would be administered by the Bureau of Reclamation. **Table 4.15-10** shows land management and acreage by major component.

**Table 4.15-10 Alternative 4 Land Management and Acreage by Component**

<b>Component Subtotal</b>	<b>Private</b>	<b>State</b>	<b>Boise National Forest</b>	<b>Payette National Forest<sup>3</sup></b>	<b>Bureau of Reclamation</b>	<b>Total Acres</b>
Mine Site Subtotal	560	0	0	1,429	0	1,989
Access Roads Subtotal	11	0	168	38	0	217
Utilities Subtotal <sup>1</sup>	288	62	522	86	25	984
Off-site Facilities Subtotal	25	0	4	0	0	29
Total <sup>2</sup>	885	62	694	1,553	25	3,219

Table Source: AECOM 2020

Table Notes:

- 1 Utilities acreages include upgrades to utilities that are part of the Connected Actions.
- 2 Subtotals may not add to totals due to rounding.
- 3 Approximately 65 acres associated with surface exploration pads and temporary roads (mine site component) have unknown land management breakdown because the exact locations of these exploration areas are not yet known; however, these are included in the PNF mine site subtotal.

#### **4.15.2.4.2 LAND USE**

##### **4.15.2.4.2.1 Mine Site**

The mine site footprint under Alternative 4 would occupy approximately 1,989 acres. Alternative 4 would create approximately 1,070 acres of new disturbance at the mine site. Mining methods as outlined for Alternative 1 would not change under Alternative 4. Patented and unpatented mining claims in the SGP area are located both within the mine site and in the overall Alternative 4 footprint. Alternative 4 mining operations would take place on approximately 570 acres of patented mining claims, and approximately 1,481 acres of unpatented mining claims (**Table 4.15-11**).

Impacts to land use and during construction, operation, and post-closure under Alternative 4 would be the same as those discussed under Alternative 1.

**Table 4.15-11 Alternative 4 Patented and Unpatented Mining Claims**

Patented Claims (Acres)	570
% Patented Claims	28%
Unpatented Claims (Acres)	1,481
% Unpatented Claims	72%
Total Area (Acres)	2,051

Table Source: AECOM 2020

#### **4.15.2.4.2.2 Access Roads**

Under Alternative 4, the Burntlog Route would not be constructed, and the Yellow Pine Route would be used for access during mine construction, operations, closure and reclamation. Public access would be provided through the mine site similar to that described in Alternative 2. The temporary Johnson Creek groomed OSV trail from Trout Creek to Landmark would be used during mine construction, operation, and closure and reclamation (it would only be used during construction of the Burntlog Route under Alternatives 1, 2, and 3). Access roads for cell tower and VHF repeater sites in IRAs managed for Backcountry /Restoration would not be constructed under Alternative 4, and instead the sites would be accessed via helicopter. This would minimize changes to land use by requiring fewer new ROW corridors. The Cabin Creek Road groomed OSV trail would be the same as described under Alternative 1.

#### **Existing Roads**

Impacts to land use along the Yellow Pine Route, Johnson Creek groomed OSV trail, and the Cabin Creek Road groomed OSV trail would be the same as described in Alternative 1, except major improvements (i.e., widening and upgrading) to the Yellow Pine Route would impact land use on approximately 155 acres of private and NFS lands. This acreage includes development of borrow sources along the Yellow Pine Route for use in upgrading and maintaining the road throughout the life of the mine.

#### **New Roads**

Construction of the new roads under Alternative 4 would result in a land use change of approximately 78 combined acres on NFS and private land. The new public access road through the mine site would result in a change in use of approximately 21 acres of NFS and private land. Access roads to the VHF repeater sites and cell towers outside of IRAs would result in a land use change of approximately 4 acres of NFS and private land. Improvements to both the OSV trails would result in a land use change of approximately 53 acres of NFS land.

The new ROW for the public access road, Johnson Creek groomed OSV trail, and Cabin Creek Road groomed OSV trail would be authorized under 36 CFR 228A as a part of a plan of operations. The new ROW corridor is considered a direct effect to NFS land use, resulting in a total change in use of approximately 74 acres, including approximately 17 acres for the public

access road, 22 acres for the Johnson Creek groomed OSV trail, 31 acres for the Cabin Creek Road groomed OSV trail, and 4 acres for the VHF access roads.

The duration of these impacts would last through construction and operation of Alternative 4. The new roadway segments would be reclaimed following closure of the mine site, except for the Yellow Pine Route which would remain as improved under Alternative 4. Indirect impacts to land uses such as motorized access, recreation, and timber harvests would be the same as those described under Alternative 1.

#### **4.15.2.4.2.3 Utilities**

##### ***Transmission Lines***

Alternative 4 would be the same footprint (321 acres) for existing transmission lines as Alternative 1. Land use impacts from upgraded (136 acres) and new (84 acres) transmission lines under Alternative 4 also would be the same as described under Alternative 1.

##### ***Electrical Substations***

Land use impacts from electrical substations in Alternative 4 would be the same as those described under Alternative 1.

##### ***Communication Towers and Repeater Sites***

Land use impacts from communication towers and repeater sites would be the same as those described under Alternative 1.

#### **4.15.2.4.2.4 Off-site Facilities**

The maintenance facility under Alternative 4 would be relocated to the west of Landmark on the southern side of Warm Lake Road; however, this location would remain on NFS land and would require the same footprint (3 acres) as Alternative 1. Therefore, land use impacts from off-site facilities would be the same as those described under Alternative 1.

#### **4.15.2.4.2.5 Other Land Uses**

Alternative 4 direct and indirect impacts to other land uses would be the same as those discussed under Alternative 1. The construction of new infrastructure, such as the mine site (1,070 acres), access roads (233 acres), utilities (84 acres), and off-site facilities (29 acres) would result in an overall change of 1,416 acres of previously undisturbed private, state, NFS, and Bureau of Reclamation land to mining uses.

#### **4.15.2.5 Alternative 5**

Under Alternative 5, the SGP would not be implemented. The reclamation of historic mining areas associated would not occur under Alternative 5. The Golden Meadows Exploration Project would occur near and within the analysis area and would include exploration activities to better define mineral potential in the area. The proposed exploration drilling areas would occur on NFS

lands for a period of at least 3 years. No changes to land use or land management would be expected under Alternative 5.

### 4.15.3 Mitigation Measures

Mitigation measures required by the Forest Service and measures committed to by Midas Gold as part of design features of the SGP are described in **Appendix D**, Mitigation Measures and Environmental Commitments; see **Table D-1**, Preliminary Mitigation Measures Required by the Forest Service, and **Table D-2**, Mitigation Measures Proposed by Midas Gold as Project Design Features, respectively. The preceding impact analysis has taken these mitigation measures into consideration, as well as measures routinely required through federal, state, or local laws, regulations or permitting, such that the identified potential impacts of the SGP are those that remain after their consideration.

Mitigation measures may be added, revised, or refined based on public comment, agency comment, or continued discussions with Midas Gold and will be finalized in the Final EIS.

### 4.15.4 Cumulative Effects

The cumulative effects analysis area for land use and land management would be the same as the analysis area for direct and indirect effects.

Cumulative effects associated with the SGP consider the range of existing and foreseeable activities and their potential effects with respect to land use and management. Past and present actions that have, or are currently, affecting land use and land management include ongoing and planned mining activities, exploratory drilling (e.g., Golden Meadows Exploration Project), reclamation and closure of mining and processing facilities, road and airstrip maintenance, infrastructure management and development, noxious weed control, recreation and tourism, water diversion projects, firewood and timber harvest on public and private lands, wildlife conservation and rehabilitation plans, creek restoration, trail construction and maintenance, and hydroelectric projects. Reasonably foreseeable future actions that could cumulatively contribute to land use and land management impacts in the analysis area include: (briefly described in **Table 4.1-2**)

- South Fork Restoration and Access Management Plan
- East Fork Salmon River Restoration and Access Management Plan
- Wildlife Conservation Strategy
- Granite Meadows
- Big Creek Hazardous Fuel Reduction
- State Highway 55 Banks Beach Parking Study
- State Highway 55 Smiths Ferry Improvements
- Morgan Ridge Exploratory Drilling

#### **4.15.4.1 Common to All Action Alternatives**

Cumulative effects associated with the action alternatives would occur in combination with past, present, and future actions if these actions result in changes in land use and land management, or if additional ROW or easements were authorized by federal, state, or local entities.

Land use would be impacted by the action alternatives from construction and operations of the mine site and construction of associated facilities (access roads, utilities, and off-site facilities). The conversion of these lands to mine uses, combined with past, present, and planned mining activities, would result in a larger portion of the analysis area being used for mining land uses. Other activities that could change land management include ongoing and planned mining activities, exploratory drilling, reclamation and closure of mining and processing facilities, road and airstrip maintenance, infrastructure management and development, noxious weed control, recreation and tourism, water diversion projects, firewood and timber harvest on public and private lands, wildlife conservation and rehabilitation plans, creek restoration, trail construction and maintenance, and hydroelectric projects. Land use in the analysis area would change from existing conditions as a result of the action alternatives and land management activities associated with the reasonably foreseeable future actions.

#### **4.15.4.2 Alternative 5**

Cumulative impacts to land use and land management under Alternative 5 would result from the current ongoing activities combined with past and present actions, as well as the reasonably foreseeable future actions in the cumulative impacts analysis area. These include ongoing and planned mining activities, exploratory drilling, reclamation and closure of mining and processing facilities, road and airstrip maintenance, infrastructure management and development, noxious weed control, recreation and tourism, water diversion projects, firewood and timber harvest on public and private lands, wildlife conservation and rehabilitation plans, creek restoration, trail construction and maintenance, and hydroelectric projects.

### **4.15.5 Irreversible and Irretrievable Commitments of Public Resources**

#### **4.15.5.1 Common to All Action Alternatives**

Land use would be altered permanently in the mine site. An area that has been historically used for mining would, after the closure of the mine and reclamation of the site, no longer be used for mining; this would be considered an irreversible commitment of land use. Areas where specific land uses for the action alternatives would be converted from their original land uses, such as recreational (including special uses), tribal, and timber harvests, to mining uses would be considered an irretrievable commitment of land use, because these areas would not be available for other land uses during the life of the SGP for any of the action alternatives.

### **4.15.5.2 Alternative 5**

Under Alternative 5, the SGP would not be undertaken. There would be no irretrievable and irreversible commitment of public resources expected under Alternative 5.

## **4.15.6 Short-term Uses versus Long-term Productivity**

### **4.15.6.1 Common to All Action Alternatives**

Land use would change if any of the action alternatives are implemented. Long-term changes in land use could impact how the area is used for agriculture, fisheries, timber harvests, tribal, recreational, and other uses. However, on reclamation of the action alternatives, it is expected many of the original uses would be restored to areas impacted by the SGP.

### **4.15.6.2 Alternative 5**

The SGP would not be implemented, and there would not be any impacts from short-term uses on long-term productivity associated with Alternative 5.

## **4.15.7 Summary**

For all action alternatives, the SGP would primarily occupy NFS-managed lands, with the majority of impacts on PNF lands. The largest amount of NFS lands would be used under Alternative 3 at 2,689 acres (935 acres BNF; 1,754 acres PNF), and the lowest amount of private lands at 833 acres. Alternative 4 would be comprised of the least NFS acreage at 2,247 acres (694 acres BNF; 1,553 acres PNF), and the most private land acreage at 885 acres. Lands administered by the State of Idaho and Bureau of Reclamation combined would occupy less than 100 acres of the total SGP area for each action alternative.

Land use would be impacted by expansion of the mine site and associated mining activities and facilities (access roads, utilities, and off-site facilities). Other land uses (agriculture, fisheries, timber harvests, tribal, and recreational and special uses) would be impacted by the conversion of land to mine uses. **Table 4.15-12** shows the total acreage impacts from each mine component that would result from each action alternative.

Alternative 3 would require the greatest footprint with 3,610 total acres. Alternative 1 would require 77 acres fewer, and Alternative 2 would require 187 acres fewer than Alternative 3. Alternative 4 would have the smallest footprint at 3,219 acres, 391 acres fewer than Alternative 3.

All action alternatives would require new mine infrastructure to be built on previously undisturbed private, state, NFS, and Bureau of Reclamation lands. **Table 4.15-13** shows the acreage of impacts from the mine components, broken out by alternative.

**Table 4.15-12 Total Mine Component Acreage Impacts by Alternative**

<b>Mine Component</b>	<b>Alternative 1 (acres)</b>	<b>Alternative 2 (acres)</b>	<b>Alternative 3 (acres)</b>	<b>Alternative 4 (acres)</b>
Mine Site	1,970	1,879	2,071	1,989
Access Roads	545	529	521	217
Utilities	990	985	990	984
Off-site Facilities	28	30	28	29
Total <sup>1</sup>	3,533	3,423	3,610	3,219

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

**Table 4.15-13 New Mine Infrastructure Acreage Impacts on Previously Undisturbed Land by Alternative**

<b>Mine Component</b>	<b>Alternative 1 (acres)</b>	<b>Alternative 2 (acres)</b>	<b>Alternative 3 (acres)</b>	<b>Alternative 4 (acres)</b>
Mine Site	1,057	990	1,227	1,070
Access Roads	431	431	517	233
Utilities	84	105	101	84
Off-site Facilities	28	30	28	29
Total <sup>1</sup>	1,600	1,557	1,873	1,416

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

Alternative 3 would impact the largest amount of previously undisturbed land at 1,873 acres. Alternative 1 would require 273 acres fewer, and Alternative 2 would require 316 acres fewer than Alternative 3. Alternative 4 would impact the smallest amount of previously undisturbed land at 1,416 acres, 457 acres fewer than Alternative 3.

The action alternatives also would require new ROWs or easements to accommodate the construction of new and upgraded access roads and transmission lines. These impacts would be located on private and NFS lands; new transmission line ROW would not cross any state or Bureau of Reclamation lands for any action alternatives. New ROW on NFS lands is considered a direct effect to land use and would be authorized under 36 CFR 228A as a part of a plan of operations. ROW authorizations on private lands in Valley County would require a conditional use permit, and ROW authorizations on lands owned by the State of Idaho would require coordination with IDL. **Table 4.15-14** provides the acreage of new ROW required for each alternative.

**Table 4.15-14 New Acres of ROW Required by Alternative**

<b>New ROW</b>	<b>Alternative 1 (acres)</b>	<b>Alternative 2 (acres)</b>	<b>Alternative 3 (acres)</b>	<b>Alternative 4 (acres)</b>
Roads	431	431	517	233
Transmission Lines	84	105	101	84
Total <sup>1</sup>	515	536	618	317

Table Source: AECOM 2020

Table Notes:

1 Subtotals may not add to totals due to rounding.

ROW = right-of-way.

Alternative 3 would require the largest amount of new ROW at 618 acres. Alternative 2 would require 82 acres fewer, and Alternative 1 would require 103 acres fewer. Alternative 4 would require the smallest amount of new ROW at 317 acres, 301 acres fewer than Alternative 2.

**Table 4.15-15** provides a summary comparison of land use and land management impacts by issues and indicators for each alternative.

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**Table 4.15-15 Comparison of Land Use and Land Management Impacts by Alternative**

<b>Issue</b>	<b>Indicator</b>	<b>Baseline Conditions</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5</b>
The SGP would cause changes in land use or land management.	<i>Acres of land used for SGP components by land management agency.</i>	<i>(Analysis area)</i> Private: 925 acres State: 77 acres BNF: 1,027 acres PNF: 2,373 acres BoR: 25 acres	Private: 880 acres State: 62 acres BNF: 921 acres PNF <sup>1</sup> : 1,645 acres <sup>2</sup> BoR: 25 acres	Private: 854 acres State: 76 acres BNF: 931 acres PNF <sup>1</sup> : 1,542 acres <sup>2</sup> BoR: 19 acres	Private: 833 acres State: 62 acres BNF: 935 acres PNF <sup>1</sup> : 1,754 acres <sup>3</sup> BoR: 25 acres	Private: 885 acres State: 62 acres BNF: 694 acres PNF <sup>1</sup> : 1,553 acres BoR: 25 acres	No changes in land management would result.
	<i>Acres of total and new land disturbance within SGP area.</i>	<u>Existing disturbance acreage within analysis area:</u> 1,554 acres (includes historic mine disturbance, existing roads and utilities)	<u>Disturbance acreage impacts:</u> 3,533 total acres 45% (1,600 acres) of total is new disturbance	<u>Disturbance acreage impacts:</u> 3,423 total acres 45% (1,557 acres) of total is new disturbance	<u>Disturbance acreage impacts:</u> 3,610 total acres 52% (1,873 acres) of total is new disturbance	<u>Disturbance acreage impacts:</u> 3,219 total acres 44% (1,416 acres) of total is new disturbance	No changes in land use would result.
The SGP could cause changes in or create new ROWs or easements.	<i>Miles or acres of new or changed ROWs or easements, regardless of jurisdiction.</i>	<u>Total existing ROW (transmission lines and roads):</u> 666 acres	<u>Total new ROW (transmission lines and roads):</u> 515 acres	<u>Total new ROW (transmission lines and roads):</u> 536 acres	<u>Total new ROW (transmission lines and roads):</u> 618 acres	<u>Total new ROW (transmission lines and roads):</u> 317 acres	No changes in or new ROWs or easements would result.

Table Notes:

- 1 Approximately 65 acres associated with surface exploration pads and temporary roads (mine site component) have unknown land management breakdown because the exact locations of these exploration areas are not yet known; however, these are included in the PNF mine site subtotal.
- 2 Approximately 5 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest.
- 3 Approximately 19 acres of land listed under the PNF is administered by the PNF but is within the boundary of the Salmon-Challis National Forest.

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