

1.0 PURPOSE OF AND NEED FOR ACTION

1.1 Introduction

The United States (U.S.) Department of Agriculture Forest Service (Forest Service) has prepared this supplemental draft environmental impact statement (SDEIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal laws and regulations. This SDEIS discloses the potential environmental effects of the alternatives considered for the Stibnite Gold Project (SGP or the Project) proposed by Perpetua Resources Idaho Inc. (Perpetua) in central Idaho. This document discloses the direct, indirect, and cumulative environmental effects of the Proposed Action and the Action Alternative. More than one federal agency is involved with the SDEIS for the SGP. The Forest Service, specifically the Payette National Forest (PNF), is the lead agency in the preparation of this document (40 CFR 1501.5). The Boise National Forest (BNF) is participating, as well as cooperating agencies including the U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (EPA), Idaho Governor's Office of Energy and Mineral Resources (OEMR), Idaho Department of Lands (IDL), Idaho Department of Environmental Quality (IDEQ), and Valley County, Idaho.

This SDEIS was prepared in response to a modified Plan of Restoration and Operations (Plan) for the SGP. The Forest Service received the original SGP Plan in 2016, (Midas Gold Idaho, Inc. [Midas Gold] 2016a) for review and approval in accordance with regulations at 36 Code of Federal Regulations (CFR) 228 Subpart A. A revised Plan, also known as ModPRO¹, was submitted to the Forest Service in 2019 (Brown and Caldwell 2019a). A further modified Plan, also known as ModPRO2², was initially submitted in December 2020 with a revised submittal in October of 2021 (Perpetua 2021a). Midas Gold changed their name to Perpetua Resources Ltd (Perpetua) in February 2021³. The SGP proposes mine operations on federal, state, and private lands located in Valley County, Idaho.

A draft EIS (DEIS) evaluating five alternatives based on the revised Plan was published August 2020. The further modified mine plan intends to reduce new surface disturbance and anticipated environmental impacts while providing revised descriptions and predicted environmental effects to be considered in the EIS. In addition, comments received on the DEIS recommended that a supplemental DEIS should be prepared for various reasons. Therefore, the Forest Service determined that a SDEIS is warranted and two of the previous action alternatives (August 2020 DEIS Alternatives 1 and 3) were eliminated from further consideration (see **Section 2.6** for discussion about alternatives dismissed from detailed analysis).

Additional documentation describing the rationale for developing a SDEIS, the analyses of the effects of the alternatives considered (i.e., August 2020 DEIS), public involvement, and other relevant documents may be found within the Project record located at the Forest Service's Payette National Forest Supervisor's Office, 500 North Mission Street, McCall, Idaho.

¹ Associated project documents may reference the Revised Plan as the ModPRO.

² Associated project documents may reference the Modified Plan as the ModPRO2.

³ Documents provided by Perpetua prior to the February 2021 name change will still be cited and referenced as Midas Gold.

1.2 Stibnite Mining District History

Prospecting in this region of Idaho began in the 1890s. Gold and antimony mineralization was discovered in the Stibnite area with the first mining claims staked in 1914 (Midas Gold 2016a). The claimants organized the Meadow Creek Silver Mines Company and began minor underground mining in 1919 developing what would become the Meadow Creek Mine, now referred to as the Hangar Flats area. Multiple mining companies considered the Meadow Creek Mine but found the gold/silver/antimony mineralization too difficult to process in milling circuits of the time. Underground development work continued until 1927 when the property was optioned by the Yellow Pine Company.

The Yellow Pine Company invested in a major expansion of the Meadow Creek Mine which, by 1929, included an enlarged camp and a road to connect the mine with the town of Yellow Pine. Expansion of the underground mine from its original portal continued, with other adits driven to gain underground access into other parts of the property including the North Tunnel, Monday Tunnel, and Cinnabar Tunnel. A new camp was built at the location of these two later tunnels south of the current Yellow Pine pit. Additional surface facilities were constructed at Monday Camp including housing, shops, assay facilities, an air strip, and a post office.

In order to provide power for the Meadow Creek and Monday mine camp and facilities, the Yellow Pine Company constructed a reservoir on the East Fork of Meadow Creek in 1930 and installed a wooden pipe and steel penstock between the reservoir and a hydroelectric plant built on Sugar Creek.

Ongoing metallurgical testing of the Meadow Creek Mine ore lead to the construction of a 150-ton per day pilot mill in 1931 at Meadow Creek Camp.

The Meadow Creek Mine was the largest antimony producer in the U.S. and a major gold/silver producer in Idaho. Milling and mining continued at the Meadow Creek Mine until 1938 (Midas Gold 2016a), when the Yellow Pine Company property was taken over by the Bradley Mining Company (BMC).

After 1938 BMC focused on development of an open pit mine at the Yellow Pine deposit which contained higher gold values and lower antimony grades than at the Meadow Creek Mine. Ore was extracted from pits on the east and west sides of the East Fork South Fork Salmon River (East Fork SFSR) and hauled south in trucks from the Yellow Pine open pit to the mill at the Meadow Creek Mine. The mill was expanded from 200 to 400-tons per day capacity and renamed the Stibnite Mill. Mill tailings were initially released into Meadow Creek and later into a tailings impoundment adjacent to the mill.

Beginning in 1939, the federal government began purchasing mineral commodities, including antimony and tungsten, considered to be of strategic importance. The U.S. Geological Survey (USGS) and Bureau of Mines supported detailed exploration of the Yellow Pine deposit with the discovery of economic values of tungsten in 1941. With the federal government's wartime interest in both antimony and tungsten produced from the Yellow Pine deposit, BMC expanded mine operations and upgraded the Stibnite Mill to produce a tungsten concentrate in addition to antimony and gold/silver concentrates. Expansion of the mining at the Yellow Pine deposit included enlarging the open pit along with underground mining and diversion of the East Fork SFSR in a tunnel, called the Bailey Tunnel, which discharged the river water into Sugar Creek (Mitchell 2000). By this time, fish passage to the upward reaches of the East Fork SFSR became impassable due to the development of the Yellow Pine deposit and open pit.



Photo 1: Conveyors and Mill Buildings at Stibnite Mine in 1949
(Source: Idaho State Historical Society, Boise Idaho)

During World War II, BMC continued to expand mining and milling operations at the Meadow Creek Mine. As employment at the mine increased, the Meadow Creek camp grew into the town of Stibnite and included homes, recreational facilities, school, hospital, general store, and other commercial facilities. Two other neighborhoods were also established along lower Fiddle Creek and Midnight Creek. Idaho Power Company built a power line to Stibnite in 1943 which allowed expansion of the Stibnite Mill and provided additional power to support mining and community demands. By the end of the war, the tungsten ore in the Yellow Pine pit was exhausted and lesser tungsten mineral production continued for a time from a placer operation downstream of the Yellow Pine pit.

The tailings storage area west of the mill reached capacity in 1946. A large tailings dike was built south of the mill in the Meadow Creek valley. Meadow Creek was diverted in order to contain more tailings. Between 1946 and 1952, BMC deposited an estimated four million tons of tailings in this storage facility. In 1947 BMC constructed an antimony smelter at the Stibnite Mill to process the antimony concentrate. Subsequently, the antimony price dropped, and operations of the Yellow Pine Mine and Stibnite Mill and Smelter were shut down in the 1950s. The Bailey Tunnel diversion of the East Fork SFSR was abandoned, and the East Fork SFSR was allowed to flow over the south edge of the Yellow Pine pit forming a pit lake. Meadow Creek was rerouted over the BMC tailings impoundment, resulting in erosion of the tailings. Residents living in the valley moved out and over time the mine and town buildings in the valley were abandoned or moved to other locations (Petersen 1999). Although exploration work continued into 1955 after active mining ceased in 1952, it did not trigger the resumption of mining.

In the 1970s, the technology of cyanide heap leaching of low-grade gold/silver ores was developed by the U.S. Bureau of Mines and this raised renewed interest in many former gold production districts including Stibnite. Superior Oil Company (Superior) conducted geological, geophysical, and geochemical investigations from 1974 to 1977 to evaluate the potential for heap-leach oxide gold and silver in the West End and adjacent Stibnite deposit, which led to permitting of the open pit West End Mine with the Forest Service and mine operations by Superior commenced in 1982. An on-off, cyanide heap leach facility that included five lined leach pads, solution ponds, and a gold/silver recovery plant was built north of the former Stibnite Mill in the Meadow Creek Valley west of East Fork SFSR. Between 1982 and 1996 more than six million tons of ore were leached in this facility. After gold/silver was extracted from the ore it was rinsed of its cyanide content and removed from the leach pads. This "spent" ore was hauled to the former Stibnite Mill tailings storage facility and spread over the top of the fine-grained tailings. This area was called the Spent Ore Disposal Area (SODA) and included a diversion of Meadow Creek out of the old tailings area.

Mobile Oil Corporation purchased Superior in 1984 and suspended operations of the West End Mine in 1985 but continued to leach previously mined ore. The West End Mine and leach facilities were purchased by Pioneer Metals Corporation (Pioneer) in 1986 and were operated by Pioneer until 1991.

Between 1988 and 1992 Hecla Mining leased some of the BMC claims and developed an open pit gold mine just north of the Yellow Pine pit called the Homestake pit. Initially ore from the pit was leached at the Pioneer on-off leach facility under a tolling agreement between the companies. In 1990 Hecla constructed its own leach pad and plant near Stibnite which operated until 1992. The Hecla mine and leach areas were reclaimed between 1991 and 1993.

Beginning in 1991 the former Pioneer operations were operated by a number of other mining companies who developed other deposits including the Stibnite and Garnet Creek pits. All mining and leaching operations in the Stibnite area ceased in 1996.

1.3 Comprehensive Environmental Response, Compensation, and Liability Act Background

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, was enacted by Congress in 1980 and amended in 1986, to respond to pollution and the threats posed to human health and the environment from the release, or imminent threat of a release, of hazardous substances. The law authorizes short-term removal actions requiring prompt response and long-term remedial responses at sites, including those listed on EPA's National Priorities List (NPL). CERCLA provides that the potentially responsible parties for releases of hazardous substances pay the costs to investigate and remediate contaminated sites.

The Stibnite Mine Site (CERCLIS [Comprehensive Environmental Response, Compensation and Liability Information System] #9122307607, the Site) was assessed and proposed to be added to the NPL in 2001. Key state and congressional leaders supported funding the cleanup of the Site but opposed the stigma of adding the site to the NPL, thus the Site was not listed. Before 2001, some mining operators at the site conducted activities to reduce the release of hazardous substances. Since 2001, the Forest Service has conducted multiple projects under its CERCLA authority to reduce releases at the Site. The current owner of the site, Perpetua, has proposed to renew mining activities with the proposed SGP intended to address certain impacts associated with the legacy mining as described in Chapter 2 of this SDEIS. The SGP activities would be conducted under applicable mining law and regulations without connection to CERCLA.

In January 2021, Perpetua and affiliates entered into an Administrative Settlement Agreement and Order on Consent (ASAOC) with the EPA and the Forest Service under CERCLA to conduct cleanup of certain conditions at the Site, these areas are mostly outside of and not included in the proposed mining project.

As described in **Section 1.2**, the mining, milling, smelting, and leaching activities in the district left behind impacts including underground mine workings, multiple open pits, development rock dumps, mill tailings deposits, cyanidation heap leach pads, neutralized (spent) heap leach ore piles, a mill and smelter site, three town sites, camp sites, a washed-out earthen dam (with its associated erosion and downstream sedimentation), haul roads, an abandoned water diversion tunnel, an airstrip, and other disturbances.

Releases of hazardous substances at the Site are documented in multiple studies. Currently, there are ongoing releases of hazardous substances, pollutants, and contaminants to surface water and groundwater at the site including elevated concentrations of antimony, arsenic, copper, lead, mercury, and cyanide. Most notable are elevated concentrations of arsenic and antimony. Past mining activities have also caused alterations to stream configurations and habitat including formation of the Yellow Pine pit lake, sediment and tailings deposits, development rock dumps, and channel diversions.

In the early 1980s spent ore from on/off leach pads was purposely placed over fine-grained tailings deposited in the valley from earlier operations, known as the Bradley Tailings. This feature referred to as the Spent Ore Disposal Area (SODA), was intended to cover the Bradley tailings and prevent their erosion. In the 1990s the mine operator Stibnite Mine Inc. entered into an Administrative Order on Consent (AOC) with EPA to divert stream flow and stabilize the Bradley Tailings/SODA disposal area to improve water quality in Meadow Creek, but the company did not complete the AOC scope of work. In

1998, a new AOC was signed between Mobil Oil Corporation, EPA, and the Forest Service to stabilize and reclaim the Bradley Tailings/SODA area. This work included construction of two diversion channels, lining an old diversion channel to reduce seepage, closing a pond, covering exposed tailings, restoring more natural stream channel features, and reclaiming the area with vegetation. This work was completed in 1999.

Pursuant to its CERCLA authorities, the Forest Service engaged in multiple remediation projects in the district to further reduce impacts from the legacy mining activities. In 2002, the Forest Service removed tailings from a pond and soils located at the former smelter stack area. The material was placed in a repository located at the Bradley NW development rock dump. The Meadow Creek floodplain was reconstructed in the former pond area. In 2004 and 2005, the Forest Service reconstructed Meadow Creek directly downstream of Smelter Flats. This included the removal of tailings from the channel and depositing this material in a new containment cell located on the SODA. The new channel banks were revegetated with willow plants and the old channel was backfilled and reclaimed. In 2009, the Forest Service regraded and covered a portion of the remaining tailings at Smelter Flats to prevent further erosion and exposure risk.

With the signing of the 2021 ASAOC, the parties to the Agreement plan to address certain legacy mining impacts under CERCLA that would not otherwise be addressed by the proposed SGP activities by Perpetua outside the project footprint. The ASAOC includes three primary phases. Phase 1 includes several “time critical removal actions” (TCRAs) consisting of stream diversion ditches designed to avoid contact of water with sources of contamination, and removal of approximately 325,000 tons of development rock and tailings from locations in Meadow Creek or East Fork SFSR that are currently impacting water quality. Phase 1 also includes baseline studies of conditions at five historic mine adits where mine water is discharging. Implementation of removal actions to address the adits is optional under the ASAOC. The purpose of these studies is to collect information to inform potential future CERCLA removal actions at these locations. In addition, Perpetua conducted a biological assessment, Clean Water Act evaluation, and a cultural resource survey to support Phase 1 activities. Phase 1 activities would be accomplished regardless of the status and potential approval of the SGP and is scheduled to be completed between 2021 and 2025. Perpetua is providing \$7.5 million in financial assurance for the Phase 1 scope of work.

When all work in Phase 1 is completed, and if approvals and permits have not been obtained by Perpetua for the SGP, the company, upon approval by the agencies, may elect to perform activities in the optional Bridge Phase described in the ASAOC. These activities would potentially include additional water diversions, capping or covering of mine waste in place, and targeted removal of additional mine waste materials to improve water quality. The Bridge Phase would be completed within a year of the agencies’ acceptance of the work plan for this phase if Perpetua and the Agencies elected to implement the activities.

Optional Phases 2 and 3 would be conducted if elected by Perpetua and approved by the agencies. The work would consist of “Non-time Critical Removal Actions” (NTCRAs) and would only be performed by Perpetua if it has obtained approval for the proposed SGP. Phase 2 would consist of further planning and implementing potential removal actions at the five adits studied in Phase 1. Phase 3 would consist of a synoptic study of two reaches of the East Fork SFSR to identify areas for implementation of additional

removal actions in locations identified in the ASAOC Statement of Work and agreed to by the parties that would not be subject to mining and reclamation activities under the SGP in effect at that time. Because these phases are optional, phases 2 and 3 are not considered reasonably foreseeable by the EPA and therefore are not included as cumulative or connected actions within this environmental impact statement (EIS).

1.4 Stibnite Gold Project Overview

The 2021 Modified Mine Plan (2021 MMP) proposes use of the surface of National Forest System (NFS) lands in connection with operations authorized by the U.S. mining laws within the Operations Area Boundary. The 2021 MMP provides details for the construction, operation, reclamation, and closure of a gold, silver, and antimony mine. The following elements are integral to the 2021 MMP:

- Mine pit locations, areal extents, and mining and backfilling methods
- Transportation on existing and proposed roads
- Pit dewatering, surface water management, and water treatment
- Ore processing
- Lime generation plant
- Tailings Storage Facility (TSF) construction and operation
- TSF Buttress construction methods
- Water supply needs and uses
- Management of mine impacted water and stormwater runoff
- Electrical transmission lines
- Stibnite Gold Logistics Facility (SGLF)
- Road maintenance facility
- Surface and underground exploration
- Worker housing facility

1.5 Operations Area Boundary

The SGP Operations Area Boundary, associated access roads, and off-site facilities are located in Valley County, Idaho. The Operations Area Boundary is situated approximately 98 miles by air and 146 miles by road northeast of Boise; approximately 44 air miles and 68 miles by road northeast of Cascade; and approximately 10 air miles and 14 miles by road east of the village of Yellow Pine, Idaho (**Figure 1.5-1**). Activities described in the 2021 MMP would occur within approximately 820 acres of private lands (including approximately 535 acres of patented mining claims owned or controlled by Perpetua), approximately 2,372 acres of NFS lands, 13 acres of federal land administered by the Bureau of Reclamation, and 62 acres of public lands administered by the State of Idaho.

1.6 Purpose And Need

1.6.1 Purpose and Need for Federal Action

The Forest Service's purpose is to consider approval of Perpetua's proposed use of the surface of NFS lands in connection with operations authorized by the U.S. mining law as first described in the Plan submitted September 2016, then refined in 2019 (Brown and Caldwell 2019a), and further modified in 2021 as the 2021 MMP (Perpetua 2021a). The Forest Service's need for action is to ensure that the proposed occupancy and use of NFS lands is consistent with statutory and regulatory requirements. For purposes of this environmental analysis, the agency is assuming the proposed uses would be able to be authorized under existing regulatory authorities. However, the agency will need to evaluate the eventual applications for rights of way to make a final determination.

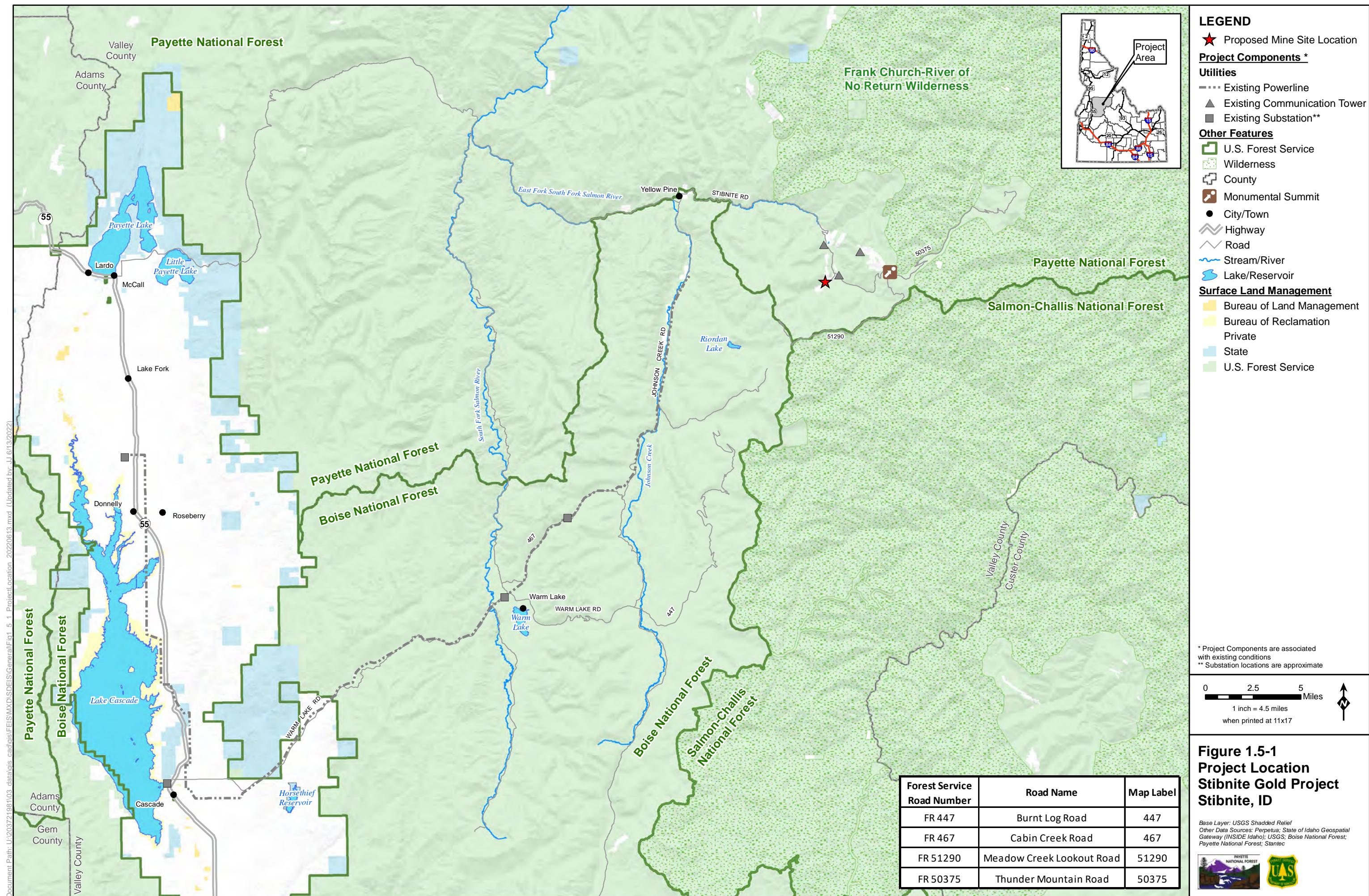
The need for action is to:

- Consider approval of Perpetua's 2021 MMP for development of the SGP to mine gold, silver, and antimony deposits that, where feasible, would minimize adverse environmental impacts on NFS surface resources; and ensure that measures are included that provide for mitigation of environmental impacts and reclamation of the NFS surface disturbance.

1.6.2 USACE'S Purpose and Need

Perpetua's 2021 MMP includes the discharge of dredge and fill material into waters of the U.S. (WOTUS), including wetlands. Accordingly, the USACE, pursuant to Section 404 of the Clean Water Act (CWA), will review the SGP and render a decision to either issue, issue with special condition, or deny a permit for the Project. As a cooperating agency the USACE intends to use this EIS process and document for evaluating compliance with its responsibilities under NEPA and the CWA Section 404(b)(1) Guidelines. As part of its review, the USACE is required by the CWA to independently consider and express the activity's underlying purpose and need from Perpetua's (the applicant) and the public's perspectives (33 CFR 325).

From the USACE's perspective, the basic purpose for the SGP is to extract gold, silver, and antimony from ore. Under the CWA Section 404(b)(1) Guidelines (40 CFR 230), the USACE uses the basic project purpose to determine if a project is "water dependent." A project is water dependent if it must be located in, or be close to, a special aquatic site, including wetlands, to fulfill its basic purpose. The USACE has determined that mining gold, silver, and antimony ore is not a water-dependent activity. The overall project purpose is to mine gold, silver, and antimony from ore deposits associated with the SGP. This overall project purpose will be used for evaluating practicable alternatives under the 404(b)(1) guidelines. The 404(b)(1) analysis will be completed by the USACE following the receipt of public comments on both this SDEIS and Perpetua's application for a Department of the Army (DA) permit for the SGP.



1.7 Federal Decision Framework

The U.S. mining laws (30 U.S.C. 21-54), govern the exploration and development of minerals on public lands. Locatable minerals operations on NFS lands are subject to regulations found at 36 CFR 228 subpart A. Locatable mineral operations are to be conducted so as to, where feasible, minimize adverse environmental impacts on National Forest surface resources (36 CFR 228.8). In prospecting, locating, and developing the mineral resources, all persons must comply with the rules and regulations covering the National Forests (16 U.S.C. 478). All functions, work, and activities on NFS lands in connection with prospecting, exploration, development, mining, or processing of mineral resources and all uses reasonably incident thereto, including roads that are constructed and maintained in connection with development and mining of mineral resources, are operations authorized by the U.S. mining laws (36 CFR 228.3(a)).

The Forest Service is the lead agency in the preparation of this document (40 CFR Part 1501.5). The USACE is a federal cooperating agency with decisions to be made based on this environmental analysis consistent with the NEPA. Other federal, state, and local agencies are also participating in this review as cooperating agencies as noted in **Section 1.1**.

1.7.1 Forest Service Decisions

The Payette Forest Supervisor, as the responsible official acting on behalf of the lead agency, has determined that preparation of an EIS is required because approving the 2021 MMP may have significant impacts on the human environment (40 CFR Part 1501). The Payette Forest Supervisor will make the following decisions:

- Whether to approve the 2021 MMP as submitted, or any alternative considered in detail in the final EIS (FEIS).
- Whether to amend⁴ the Payette Forest Plan (FEIS and Record of Decision for the Revised Payette Land and Resource Management Plan, 2003 is incorporated by reference). One or more project-specific amendments to the forest plan would be required.

The Boise Forest Supervisor will make the following decisions:

- Whether to amend the Boise Forest Plan (FEIS and Record of Decision for Revised Boise Land and Resource Management Plan, 2010 is incorporated by reference). One or more project-specific amendments to the forest plan would be required.

The Payette and Boise Forest Plans provide direction relevant to the 2021 MMP and its alternatives through forest-wide plan components and management areas. Management Areas (MAs) in the SGP area include the following:

Payette National Forest

- Management Area 13 Big Creek/Stibnite

⁴ Forest plan amendments are evaluated under the 2012 Planning Rule per 36 CFR Part 219.17(b)(2), which requires all forest plan amendments initiated after May 9, 2012, to use the 2012 Planning Rule.

Boise National Forest

- Management Area 17 North Fork Payette River
- Management Area 19 Warm Lake
- Management Area 20 Upper Johnson Creek
- Management Area 21 Lower Johnson Creek

Amendments to the Payette and Boise Forest Plans would be required to approve the 2021 MMP or the Johnson Creek Route Alternative. A forest plan may be amended at any time. The responsible officials (Boise and Payette Forest Supervisors) have the discretion to determine whether and how to amend the plan(s) and to determine the scope and scale of any amendment. A plan amendment is required to add, modify, or remove one or more plan components. The proposed removal of the below identified forest plan Standards would be one-time amendments to the current forest plans and would be project-specific and apply only to the SGP. These amendments would be made according to the 2012 Planning Rule (36 CFR Part 219.13) and will comply with the direction in both forest plans relating to Standards.

Opportunities for public participation and notification regarding the forest plan amendments will be combined with the public participation and notification processes used for project planning at 36 CFR Part 218 for this EIS (36 CFR 219.13). The project-specific amendments for the SGP may have effects directly related to 2012 planning rule's substantive requirements regarding sustainability (Section 219.8), plant and animal community diversity and persistence of native species (Section 219.9), multiple use (Section 219.10), timber (Section 219.11), and others.

Forest Plan amendments, summarized in **Table 1.7-1**, could be needed in four resource topics, depending on the action alternative selected, to allow the SGP to be consistent with the Payette and Boise Forest Plans.

Table 1.7-1 Forest Plan Amendments

Resource	Plan Component	Current Forest Plan Component Text
General Management Actions	PNF Standard 1301 PNF Standard 1306 BNF Standard 2010 BNF Standard 2113 BNF Standard 1919 BNF Standard 2005	Management actions, including salvage harvest, may only degrade aquatic, terrestrial, and watershed resource conditions in the temporary time period (up to 3 years), and must be designed to avoid resource degradation in the short term (3-15 years) and long term (greater than 15 years).
Total Soil Resource Commitment	PNF Standard SWST03	Management activities that may affect Total Soil Resource Commitment (TSRC) shall meet the following requirements: <ul style="list-style-type: none">• In an activity area where existing conditions of TSRC are below 5 percent of the area, management activities shall leave the area in a condition of 5 percent or less TSRC following completion of the activities.• In an activity area where existing conditions of TSRC exceed 5 percent of the area, management activities shall include mitigation

Resource	Plan Component	Current Forest Plan Component Text
		and restoration so that TSRC levels are moved back toward 5 percent or less following completion of activities. • To estimate TSRC it is essential that the glossary definitions for “activity area, detrimental soil disturbance and total soil resource commitment” are clearly understood.
Visual Quality Objectives	PNF and BNF Standard SCST01	All projects shall be designed to meet the adopted Visual Quality Objectives (VQOs) as identified in Management Area direction and represented on the Forest VQO map.
	BNF Standard 1767 (MA 17)	Meet the visual quality objectives as represented on the Forest VQO Map, and where indicated in the table below as viewed from the following areas/corridors: FSH 22.
	BNF Standard 1983 (MA 19)	Meet the visual quality objectives as represented on the Forest VQO Map, and where indicated in the table below as viewed from the following areas/corridors: FSH 22 and Forest Road (FR) 467.
Visual Quality Objectives continued	BNF Standard 2052 (MA 20)	Meet the visual quality objectives as represented on the Forest VQO Map, and where indicated in the table below as viewed from the following areas/corridors: FR 413.
	BNF Standard 2155 (MA 21)	Meet the visual quality objectives as represented on the Forest VQO Map, and where indicated in the table below as viewed from the following areas/corridors: FR 413, FR 416 W to Hennessey Meadow, and FR 440.
Fish	PNF Standard SWST09	In fish-bearing waters, do not authorize new surface diversions unless they provide upstream and downstream fish passage and, if needed, include either fish screens or other means to prevent fish entrapment/entrainment.

For further information pertaining to meeting forest plan consistency requirements, please see the Forest Plan Consistency Analysis by resource in Chapter 4. Substantive requirements (219.8 through 219.11) that are directly related to plan direction being modified through proposed Forest Plan amendments are described in **Appendix A**. Determinations can be based on adverse, as well as beneficial, effects (36 CFR 219.13(b) (5)(i)). Plan amendments that apply to a specific project can use the analysis prepared for the project as documentation (36 CFR 219.13 (b)(1)). For each proposed amendment described in **Appendix A**, the location of the relevant analysis in the SDEIS is identified.

1.7.2 USACE Decisions

The USACE, under Section 404 of the CWA, will review the Project and either issue, issue with special conditions or deny a permit for the Project. The USACE regulates the discharge of dredged and/or fill material into WOTUS, including wetlands (Section 404 of the CWA). The 2021 MMP would place dredged and/or fill material in WOTUS as regulated under Section 404 of the CWA. A CWA Section 404 permit is required for the discharge of dredged and/or fill material into jurisdictional WOTUS (33 CFR Part 323).

In accordance with the CWA Section 404(b)(1) guidelines (40 CFR Part 230), the USACE may permit only the least environmentally damaging practicable alternative while considering cost, logistics, and technology. The USACE has determined that potentially jurisdictional WOTUS, including wetlands, are

present that may be impacted by the Project. These waters are described in the “Wetlands and Riparian Resources” section of Chapter 3.

1.7.3 Key Permits Necessary to Implement the Plan of Operations

To implement the 2021 MMP and activities described in this EIS, Perpetua would need to obtain (or renew) permits and licenses. **Table 1.7-2** is a list of the key permits likely required to implement the 2021 MMP or the action alternative.

Table 1.7-2 Key Permits, Approvals, and Regulation Compliance Likely Required

Agency	Permit or Authorization
U.S. Forest Service	<ul style="list-style-type: none"> • Approved Plan of Operations (meeting the requirements of the Payette and Boise Forest Plans) • New Special Use Permit (SUP) for extension of the transmission line (PNF) • Revised SUP for the upgrade of transmission line 328 (BNF) • Timber Sale Permit(s) and Contract(s)
USACE Regulatory Division	<ul style="list-style-type: none"> • DA authorization pursuant to CWA Section 404
U.S. Environmental Protection Agency	<ul style="list-style-type: none"> • CWA Section 404 Permit Review • Spill Prevention Control and Countermeasures Plan (SPCC)
U.S. Fish and Wildlife Service	<ul style="list-style-type: none"> • Incidental Take Permit pursuant to Section 7 of the Endangered Species Act (ESA) • Protection of migratory birds under the Migratory Bird Treaty Act • Protection of bald and golden eagles under the Bald and Golden Eagle Protection Act
U.S. Department of Transportation	<ul style="list-style-type: none"> • Hazardous Materials Transportation Permit
U.S. Bureau of Reclamation	<ul style="list-style-type: none"> • Updated Land Use Authorization for upgrade of existing transmission line 328
National Oceanic and Atmospheric Administration National Marine Fisheries Service	<ul style="list-style-type: none"> • Incidental Take Permit pursuant to Section 7 of the ESA
Mine Safety and Health Administration	<ul style="list-style-type: none"> • Issue a mine identification number • Legal Identity Report • Approval of Ground Control Plan • Approval of Mine Health and Safety Training Plan
Federal Communications Commission	<ul style="list-style-type: none"> • Radio Authorizations
Treasury Department (Bureau of Alcohol, Tobacco, Firearms and Explosives)	<ul style="list-style-type: none"> • High Explosives Permit • Explosives Manufacturing Permit (ammonium nitrate and fuel oil [ANFO])
State Historic Preservation Officer	<ul style="list-style-type: none"> • Section 106 Consultation under the National Historic Preservation Act (NHPA)

Agency	Permit or Authorization
Idaho Department of Lands	<ul style="list-style-type: none"> • Mine and Reclamation Plan Permit and Permanent Closure Plan under the Mined Land Reclamation Act • Compliance with Best Management Practices for Mining in Idaho
Idaho Department of Water Resources	<ul style="list-style-type: none"> • Stream Channel Alteration Permits • Water Well Drilling Permits • Mine Tailings Impoundment Approval for Construction • Water Right Permits
Idaho Department of Environmental Quality	<ul style="list-style-type: none"> • Air Quality Permit to Construct under Rules for the Control of Air Pollution in Idaho • Section 401 Certification under the CWA • Application for Point of Compliance under the Ground Water Quality Rule • Compliance with the Rules for Ore Processing by Cyanidation • Compliance with the Idaho Rules for Public Drinking Water Systems • Compliance with the Water Quality Standards • Compliance with the Solid Waste Management Rules • Compliance with the Rules and Standards for Hazardous Waste • Compliance with the Individual/Subsurface Sewage Disposal Rules • Compliance with the Wastewater Rules • Compliance with the Recycled Water Rules • Stormwater General National Pollutant Discharge Elimination System Permit(s) (construction or multi-sector) • Wastewater Discharge Permit under Idaho Pollutant Discharge Elimination System Rules
State Fire Marshal	<ul style="list-style-type: none"> • Compliance with the International Fire Code
Office of Emergency Management	<ul style="list-style-type: none"> • Tier II Reporting under the Emergency Planning and Community Right to Know Act (EPCRA) • TRI Reporting under the EPCRA and Pollution Prevention Act
Valley County	<ul style="list-style-type: none"> • Conditional Use Permit • Building Permits • Compliance with Valley County Liquefied Petroleum Gas Systems Ordinance • Compliance with Valley County Public Road Easement Stipulations

Table Source: Perpetua 2021a

1.8 Tribal Participation

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 with these federally recognized tribes: the Nez Perce Tribe, the Shoshone-Paiute Tribes, and the Shoshone-Bannock Tribes. The Forest Service requested scoping input from the tribes through letters dated May 31, 2017 (Shoshone-Paiute Tribes), June 1, 2017 (Shoshone-Bannock Tribes), and June 6, 2017 (Nez Perce Tribe). The Forest Service presented the SGP and initiated consultation during government-to-government meetings (Nez Perce Tribe May 23, 2017; Shoshone-Bannock Tribes July 26, 2017; and Shoshone-Paiute Tribes April 13, 2017). The Forest Service offered the Tribes cooperating agency status but the Tribes declined. Since then, numerous meetings, calls, and communications have occurred. Government-to-government consultation will continue throughout the process. Details of this consultation are included in Chapter 6 of this SDEIS.

1.9 Scoping and Public Engagement

The Forest Service published a notice of intent (NOI) to prepare an EIS for the SGP in the Federal Register June 5, 2017. The NOI initiated a 45-day scoping period which ended July 20, 2017. During this time period, the Forest Service conducted five public meetings, including in-person meetings in Cascade, McCall, Yellow Pine, and two in Boise, Idaho. A legal notice was published in *The Idaho Statesman*, Boise, Idaho (the newspaper of record), and *The McCall Star News*, McCall, Idaho June 1, 2017.

The PNF received a total of 536 submissions during public scoping. The Scoping and Issues Summary Report can be viewed here: <https://www.fs.usda.gov/project/?project=50516>.

A notice of availability (NOA) for the DEIS was published in the Federal Register August 20, 2020. The NOA initiated a 60-day comment period; in response to requests for extension, a 15-day extension was granted for public comments on the DEIS. In total, approximately 10,000 submissions were received during the 75-day comment period in response to the DEIS. During that time, a virtual, on-line Project information room provided SGP data for review such as posters, documents, and figures; due to the COVID-19 pandemic, in-person public meetings were not held. In addition, DEIS reference documents were available via a linked document on the Project webpage, except for information held as confidential per Forest Service procedures. The issues evaluated in this SDEIS are derived from public comments originally made during the public scoping period and summarized in the SGP Scoping and Issues Summary Report issued in January 2018 (AECOM 2018). In that document, the comments received during scoping from agencies and the public were summarized into categories, which became the basis for defining issues and indicators. After the public comment period for the SGP DEIS, Midas Gold (now Perpetua) revised the Plan to address potential impacts and public concerns. The comments received on the SGP DEIS were reviewed as additional scoping input during development of this SDEIS.

Additional details regarding public involvement and public scoping are provided in Chapter 6, **Section 6.1, Public Participation Summary**.

1.10 Issues

Using the comments from public and agency scoping, the Forest Service, in coordination with cooperating agencies, developed a list of resource concerns and topics to address in this SDEIS. For each issue, indicators were created to describe, compare, and contrast the effects of the Proposed Action and alternatives carried forward for detailed analysis.

1.10.1 Significant Issues

The regulations implementing NEPA require federal agencies to develop and evaluate alternatives to Proposed Actions that involve unresolved conflicts concerning alternative uses of available resources (40 CFR 1501.2). Significant issues are those which are used to formulate alternatives to the Proposed Action and to develop mitigation measures. The following significant issues were identified for the SGP and are listed below with indicators which measure and compare potential effects. Significant issues are analyzed in depth in the EIS (40 CFR 1501.7(a)(2)) and may be a cause/effect relationship between the Proposed Action and a significant impact (Forest Service Handbook [FSH] 1909.15 chap. 12.41 [Forest Service 2015a]).

1.10.1.1 Fish Resources and Fish Habitat

Construction and operation of mine infrastructure may impact the quality and quantity of water, habitat for Chinook salmon, steelhead, and bull trout. SGP activities may also affect fish behavior and reproductive success and may result in injury or mortality of Chinook salmon, steelhead, and bull trout in the analysis area.

Indicators:

- Changes in stream and lake habitat directly impacted by channel removal (kilometers [km]).
- Change in amount of total useable Chinook salmon Intrinsic Potential (IP) habitat (km).
- Direct loss of Chinook salmon Critical Habitat (km).
- Changes in total useable steelhead IP habitat (km).
- Changes in the length of available bull trout habitat (km).
- Bull trout occupancy probability.
- Changes in access to bull trout lake habitat.
- Direct loss of bull trout critical habitat (km).
- Length of westslope cutthroat trout habitat (km).
- Westslope cutthroat trout occupancy probability.
- Changes in stream peak and baseflow (cubic feet per second [cfs]).
- Changes in water temperature (degrees Celsius [$^{\circ}\text{C}$]).
- Changes in water chemistry (analysis criteria).

1.10.1.2 Surface Water and Ground Water Quantity and Quality

Construction and operation of mine infrastructure may impact water quality and quantity within the analysis area.

Indicators:

- Mineralized waste generated (tons, closure stabilization, and water chemistry).
- Exposures of ore bodies/potentially acid-generating material (rock and water chemistry).
- Legacy mine tailings and waste rock (rock and water chemistry).
- Methylation rates for mercury (water chemistry).
- Surface water quality (water chemistry and temperature).
- Groundwater quality (water chemistry).
- Stream flow characteristics (daily, seasonal, annual).
- The extent, magnitude, and duration of changes in groundwater levels (feet of drawdown).

1.10.1.3 Tribal Rights and Interests

Construction and operation of mine infrastructure may impact access to reserved Tribal rights and resources. Construction and operation of mine infrastructure may impact tribal resources.

Indicators:

- Existence of the Nez Perce Tribe Treaties (1855 and 1863).
- Existence of Shoshone-Bannock Treaty (1868).
- Existence of the Shoshone-Paiute Tribes Executive Order.
- Known prehistoric cultural resources and/or traditional use sites impacted by the SGP.
- Presence of traditional cultural properties⁵ (TCPs), cultural landscapes⁶ (CLs), sacred sites, and tribal resource collection areas that may be physically impacted by ground disturbance.
- Presence of TCPs, CLs, sacred sites, and tribal resource collection areas that may be impacted by visual intrusions caused by SGP components or an increase in audible elements (noise and vibrations).
- Changes in access to TCPs, CLs, sacred sites, and tribal resource collection areas due to the restricted access within the Operations Area Boundary.
- Changes to species viability and/or availability for tribal harvest of culturally important fish, wildlife, and plants.

1.10.1.4 Wetlands and Riparian Resources

Construction and operation of mine infrastructure may impact the quantity of wetland acres, impact ecological function, and fragment wetland habitat.

Indicators:

- Amount (acres) of wetland and riparian habitat permanently lost through construction of SGP components.
- Amount (acres) of wetland and riparian habitat temporarily lost through construction of SGP components.
- Functional units of high-value wetlands lost due to project construction, as demonstrated using functional assessment method.
- Acres of wetlands that would be affected by new or improved roads.
- Qualitative analysis of effects of wetland and riparian habitat fragmentation in affected areas.
- Amount (acres) of wetlands that would be within the footprint of groundwater drawdown.

⁵ A TCP, as defined in the NHPA, is a property that is eligible for inclusion on the National Register of Historic Places (NRHP) “because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history and are important in maintaining the continuing cultural identity of the community” (Parker and King 1998).

⁶ A CL is defined 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).

- Qualitative analysis of estimated changes in water quality parameters based on predictive water modelling in wetland areas.

1.10.1.5 Access and Transportation

Construction and operation of mine infrastructure may impact public access to NFS lands and affect travel routes within the SGP area.

Indicators:

- Number, location, and description of changes in access due to new and improved roadways.
- Amount of new road (miles).
- Change in amount of use (number of trips).
- Changes to current status on motorized mixed use of routes.

Construction, operation, and reclamation may affect traffic volumes, types of vehicles, and patterns of use. Further, it may affect access to public lands as well as public safety during mine construction, operations, and closure and reclamation.

Indicators:

- Miles of roads used by mine vehicles.
- Change in traffic volume.
- Potential number of accidents, both current and projected.
- Change in emergency access.
- Assessment of effectiveness of design features designed to prevent accidents.

1.10.2 Important Resource Related Issues

Other important issues were developed from scoping comments along with Forest Service and cooperating agency review. Though these issues were not identified as ‘significant issues’, they were identified by the public, the Forest Service, and cooperating agencies as relevant considerations. These other important issues help to focus the analysis of environmental effects to the physical, biological, and social resources under consideration. Like significant issues, other important issues use indicators to measure and compare potential effects. **Table 1.10-1** presents other important issues discussed in greater detail in Chapter 4.

Table 1.10-1 Important Resource Related Issues

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Geologic Resources and Geotechnical Hazards	<ul style="list-style-type: none">• The minerals present at the site are economically valuable and may contribute to the national goal of being economically independent in strategic metals, such as antimony.• Mining activities could change the existing topography and leave physical hazards if not properly designed and managed.• Geological and geotechnical stability of the SGP facilities, including the TSF and other mine components.	<ul style="list-style-type: none">• Amount and value of ore extracted (million tons/\$).• Depletion of mineral resources (million tons).• Alteration of natural topography.• Unstable slopes.• Geological/Geotechnical suitability of the selected locations for the mining and facilities to be constructed.• Long-term geologic/geotechnical stability of the proposed structures.	Geologic Resources and Geotechnical Hazards
Air Quality	<ul style="list-style-type: none">• The SGP may affect air quality characteristics and resources that are affected by air pollutants.	<ul style="list-style-type: none">• Geographical extent of pollutant concentrations and deposition.• Type and volume of air pollutants emitted, including haze precursors, airborne dust, and hazardous air pollutants (HAP). (tons per year)• Criteria air pollutant ambient air concentrations outside the Operations Area Boundary anywhere the public is allowed unrestricted access.• Comparison of predicted ambient concentrations to Class I and Class II increments and Significant Impact Levels.• HAPs (including mercury [Hg]) emissions and Hg deposition.• Deposition of nitrogen and sulfur compounds in Class I and specified Class II areas.• Near-field plume blight and far-field regional haze in protected areas.	Air Quality

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Climate Change	<ul style="list-style-type: none"> • The SGP activities could contribute to factors that influence climate change. • Changing climatic conditions, in synergy with the SGP (including construction, operations, and closure and reclamation), could impact the physical, biological, and social resources. 	<ul style="list-style-type: none"> • Greenhouse Gas (GHG) emissions from SGP activities (construction, operations, and closure and reclamation), expressed as metric tons (MT) of carbon dioxide (CO_2) equivalent (CO_2eq) of GHGs. • Changes in hydrologic patterns (drought, precipitation variability, and seasonality). • Changes in temperature (extreme heat/cold, or overall change in annual or seasonal temperatures). • Changes in extreme weather events (flash flooding, wildfires, severe storms). 	Climate Change
Soils and Reclamation Cover Materials	<ul style="list-style-type: none"> • The SGP may result in long-term adverse impacts to soil resources. • Available reclamation cover material (RCM) may not be of sufficient quantity or quality to achieve reclamation objectives of returning disturbed areas to productive conditions that sustain long-term wildlife, fisheries, land, and water resources. 	<ul style="list-style-type: none"> • Amount of (acres) and proportion of the TSRC activity area that are converted from a productive site to a non-productive site (as defined in both the Payette Forest Plan and Boise Forest Plan). • Amount of (acres) and proportion of detrimental soil disturbance (DD) activity area that have altered soil characteristics resulting in a loss of productivity and altered soil-hydrologic conditions (as defined in both the Payette and Boise Forest Plans). • Volume of RCM available (bank cubic yards [BCY]) for reclamation compared to expected demand to achieve reclamation objectives. • Quality and suitability of RCM available for reclamation. 	Soils and Reclamation Cover Materials
Noise	<ul style="list-style-type: none"> • The SGP may cause disturbance to Noise Sensitive Receivers (NSRs) such as occupied residences and campgrounds. 	<ul style="list-style-type: none"> • Noise exceeds 55 decibels (dB) on the A-weighted scale (dBA) day-night noise level (L_{DN}) at the exterior use area of an NSR, or 55 dBA average hourly noise level (L_{EQ1h}) at any time at an exterior use area. • Noise exceeds 45 dBA L_{DN} at the interior portion of a residential NSR. • Noise causes the baseline outdoor ambient (i.e., existing) noise level to increase by more than 5 dBA in the vicinity of an NSR. • Noise causes the resulting indoor or outdoor ambient noise level to exceed 60 dBA equivalent sound level (L_{EQ}). 	Noise

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Hazardous Materials	<ul style="list-style-type: none"> • The SGP may cause accidental releases of hazardous materials or wastes, including diesel fuel, gasoline, lubricants, antifreeze, chemical reagents and reactants (including sodium cyanide and sulfuric acid), antimony concentrate, mercury containing residuals, lime, explosives and other substances during their transport, use, storage, or disposal. 	<ul style="list-style-type: none"> • Volumes (gallons, truckloads, tons) and types of hazardous materials and hazardous wastes transported, used, and stored during site operation. • Practices for storage and use on site including primary/secondary/tertiary containment types and volumes and material handling practices. • Amount of vehicular transport (trips) of hazardous materials during construction, operations and closure and reclamation. • Travel routes and road conditions (such as terrain, proximity to water bodies, geohazard risk, etc.). 	Hazardous Materials
Vegetation (General Vegetation Communities, Botanical Resources, and Non-native Plants)	<ul style="list-style-type: none"> • The SGP may impact forested Potential Vegetation Groups (PVGs) within Forest Service-administered land and could impact the ability of these areas to reach desired conditions. • The SGP may impact non-forested areas (i.e., those that are identified through PVG mapping as not being successional to forests) within Forest Service-administered land and could impact the ability of these areas to reach desired conditions. • The SGP may impact vegetation outside the boundaries of the Forests. • The SGP may impact known occurrences of Regional and Forest-specific designated sensitive and forest watch plant species. • The SGP may result in a direct loss of modeled potential habitat 	<ul style="list-style-type: none"> • Amount of disturbance (acres) to previously undisturbed forest PVGs within Forest Service-administered land. • Amount of disturbance (acres) to previously undisturbed non-forested areas within Forest Service-administered land. • Amount of disturbance (acres) in previously undisturbed Landscape Fire and Resource Management Planning Tools Project (LANDFIRE) existing vegetation types outside Forest Service boundaries. • Presence of known occurrences of sensitive or forest watch plant species or occupied habitat within 300 feet of the disturbance area. • Amount of modeled potential habitat (acres) for Regional and Forest-specific designated sensitive and forest watch plant species disturbed by the SGP. • Amount (acres) of land disturbed by the SGP. • Amount (acres) of vegetation removal in modeled potential habitat for whitebark pine. • Amount (acres) of whitebark pine occupied habitat impacted by the SGP. • Estimated number of mature whitebark pine trees to be cut during SGP construction. • Acres of habitat for whitebark pine known occurrences that would be directly impacted. 	Vegetation (General Vegetation Communities, Botanical Resources, and Non-native Plants)

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
	<p>for Regional and Forest-specific designated sensitive and forest watch plant species.</p> <ul style="list-style-type: none"> • SGP actions may result in increased potential for non-native plant establishment and spread. • Candidate Plant Species - Construction and operation of mine infrastructure may impact habitat for whitebark pine and may result in individual mortality. 		
Wildlife and Wildlife Habitat (Including Threatened, Endangered, Proposed, and Sensitive Species)	<ul style="list-style-type: none"> • The SGP may cause changes in wildlife habitat in the analysis area that may affect wildlife species including special-status species (threatened, endangered, Management Indicator Species, and sensitive species). • The SGP may affect wildlife by introducing barriers to movement, including the mine site, infrastructure, new/existing maintained roads, new transmission line. • The SGP may affect wildlife by potentially increasing the risk of direct injury or mortality. 	<ul style="list-style-type: none"> • Amount (acres) of general wildlife habitat disturbed. • Amount (acres) of special-status wildlife habitat disturbed. • Amount (acres) of disturbance to other high-value habitats such as crucial and or high-value big game ranges, wetlands, and seep and spring areas. • Change in noise levels (dB) in, or in proximity to, wildlife habitat. • Amount (acres) of new road disturbance for the SGP. • Amount (acres) of disturbance for new and upgraded transmission lines. • Length (miles) of potential movement barriers. • Amount of increased traffic along the access routes, or acres of ground disturbance for less-mobile species. • Miles of new roads and transmission lines. • Miles of existing roads that are not currently plowed that would be plowed. 	Wildlife and Wildlife Habitat (Including Threatened, Endangered, Proposed, and Sensitive Species)
Timber Resources	<ul style="list-style-type: none"> • The SGP may change the availability of timber resources, including sawtimber and special forest products. 	<ul style="list-style-type: none"> • Volumes and acres of timber resources removed. • Acres of timberland (including land suited for timber production) converted to other, non-productive land uses. • Miles or acres of new or changed rights-of-way (ROWs) or easements, regardless of jurisdiction. 	Timber Resources

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Land Use and Land Management	<ul style="list-style-type: none"> • The SGP would cause changes in or create new ROWs or easements. • The SGP would cause changes in land use or land management. 	<ul style="list-style-type: none"> • Miles or acres of new or changed ROWs or easements, regardless of jurisdiction. • Acres of land used for SGP components by land management agency. • Acres of total and new land disturbance within SGP area. 	Land Use and Land Management
Heritage Resources	<ul style="list-style-type: none"> • The SGP would impact historic properties through temporary or permanent ground disturbing activities during construction, operation, and closure and reclamation phases. • The SGP may impact aboveground historic properties, TCPs, and CLs by introducing visual elements that could diminish the integrity of the resources. • The SGP would create noise and vibration that could impact fragile standing or partially standing historic properties, TCPs, and CLs. • The SGP may create increased visibility of historic properties through increased public access via new roadways and improvements to existing roads, which could potentially lead to loss or destruction. 	<ul style="list-style-type: none"> • Location and acres of ground disturbance. • Number and location of historic properties, including TCPs and CLs. • Significance of historic properties that could be displaced, damaged, or destroyed. • Locations of tall or massive SGP components in relation to aboveground historic properties, TCPs, and CLs. • Number and location of aboveground historic properties, TCPs, and CLs that may have altered viewsheds. • Vibration causing activities, including very high noise levels, and the locations of activities. • Number and location of standing or partly standing historic properties, TCPs, and CLs in relation to noise and vibration causing activities. • Location of public access roads that would be improved, constructed, and remain in use following mine closure and reclamation. • Number and location of historic properties, including TCPs and CLs, that may be impacted. 	Heritage Resources

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Public Health and Safety	<ul style="list-style-type: none"> • The SGP may affect public safety on the roads used by mine vehicles during construction, operation, and closure activities. • The SGP may affect human health or exposure to hazards. • The SGP may affect infrastructure and services as related to emergency services, medical services, utilities, sanitation, and wastewater treatment. • The SGP may cause public health effects related to changing environmental conditions. 	<ul style="list-style-type: none"> • Number of SGP-related vehicles trips on public roads. • Changes in health metrics such as soil, air, and water quality. • Quantity of hazardous materials transported on access roads. • Risk of natural hazards (wildfire, avalanche, landslide). • Capacity of existing infrastructure and services to meet anticipated increased use. • Changes in soil, air, fish consumption, and water quality that may affect public health. • Disruption at recreational areas during construction, operation, and closure and reclamation. 	Public Health and Safety
Recreation	<ul style="list-style-type: none"> • The SGP may cause changes to recreation setting, access, facilities, and/or opportunities. 	<ul style="list-style-type: none"> • Changes in motorized access (including restrictions and/or changes in maintenance) to recreation opportunities. (miles) • Changes in recreation physical setting characteristics and related Recreation Opportunity Spectrum (ROS) class (by season) measured in acres. • Changes in recreation facilities (trails, campgrounds, trailheads), including the level of development and setting. • Changes in recreation use. (qualitative) • Changes in recreation special use permits. • Changes in recreation opportunities available. • Changes in the ability to participate in recreation opportunities. 	Recreation

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Social and Economic Conditions	<ul style="list-style-type: none"> • The SGP may impact the socioeconomics of Valley and Adams counties and the State of Idaho. 	<ul style="list-style-type: none"> • Contributions to employment levels (total, State of Idaho, and Valley and Adams counties). • Estimated value (dollars) of local income contributions. • Estimated value (dollars) of goods and services procured in Valley and Adams counties. • Change in populations of Valley and Adams counties. • Impacts to housing demand in Valley and Adams counties. • Estimated tax revenue contributions (dollars). • Changes in tourism and recreational based businesses. • Changes in transportation and infrastructure. 	Social and Economic Conditions
Environmental Justice	<ul style="list-style-type: none"> • The SGP may disproportionately impact minority or low-income populations. 	<ul style="list-style-type: none"> • Number and size of minority populations affected. • Number and size of low-income populations affected. • Location of SGP facilities, including roads and transmission lines in relation to minority or low-income residents. • Differences in access to public lands. 	Environmental Justice
Inventoried Roadless Areas (IRAs)	<ul style="list-style-type: none"> • The SGP may impact roadless characteristics and wilderness attributes in IRAs and lands contiguous to unroaded areas. 	<ul style="list-style-type: none"> • Miles and acres of roads in IRAs or contiguous unroaded lands. • Number and acres of proposed SGP facilities in IRAs or contiguous unroaded lands. 	Special Designations
Wilderness	<ul style="list-style-type: none"> • The SGP could change the quality of wilderness character in designated or recommended wilderness areas. 	<ul style="list-style-type: none"> • Distance (miles) of SGP facilities from designated or recommended wilderness. • Distance (miles) of designated or recommended wilderness from sights and sounds of human activity. • Change in opportunities for self-reliant recreation within designated or recommended wilderness. 	Special Designations

Resource	Issues	Indicators	SDEIS Sections Where Resources are Described and Impacts are Addressed
Wild and Scenic Rivers (WSRs)	<ul style="list-style-type: none"> • The SGP may affect WSRs. 	<ul style="list-style-type: none"> • Changes to free-flowing conditions for eligible and suitable WSR segments. • Changes in water quality for eligible and suitable WSR segments. • Changes to Outstandingly Remarkable Values (ORVs) for which eligible and suitable WSR segments are designated or nominated. • Changes to classification of eligible and suitable WSR segments as Wild, Scenic, or Recreational. 	Special Designations
Research Natural Areas (RNAs)	<ul style="list-style-type: none"> • The SGP could impact research values or ecosystem conditions within RNAs. 	<ul style="list-style-type: none"> • Change in vegetation community composition and structure within an RNA. • Change in number of vehicles using roads and human activity. • Changes to water quality (chemistry, temperature) or quantity within an RNA. 	Special Designations
Scenic Resources	<ul style="list-style-type: none"> • The SGP may cause changes to scenic resources. 	<ul style="list-style-type: none"> • Visual contrast. • SGP component visibility. • Change in landscape character and scenic quality of the analysis area. • Change in distance zone. • Change in nighttime lighting. • Context of impacts, including that directed by forest plan standards and guidelines. • Change in scenic integrity. 	Scenic Resources

1.10.3 Issues Eliminated and Dismissed from Additional Analysis

NEPA regulations require the agency to identify and eliminate from detailed study those issues that are not significant or that have been covered by prior environmental review, to narrow the scope of the analysis. Reasons for eliminating issues from detailed study include when the issues are related to the following:

- General opinions or position statements not specific to the Proposed Action;
- Items addressed by other laws, regulations, or policies;
- Items not relevant to the potential effects of the Proposed Action, or otherwise outside the scope of this analysis; and/or,
- Items that have no or negligible effects.

1.10.3.1 Changes to the General Mining Law of 1872

Comments received suggested that reforming or changing the Mining Law, as amended, would address potential future environmental impacts. While the Mining Law is fundamentally a law for acquiring property rights, rather than an environmental law, presumably the comments were directed at eliminating the ability to establish property rights and increasing agency discretion to prevent mining. This is dismissed from consideration because making or amending law is an explicit function of Congress and not within the authority of the Secretary of Agriculture.

1.10.3.2 36 CFR Part 251 Land Uses

Comments received questioned why the proposal was not being evaluated for issuance of a special use permit under the 36 CFR 251 Subpart B regulations. The U.S. mining laws (30 USC 21-54) govern exploration and development of minerals on public lands and the Forest Service is responsible for approving plans for such use and occupancy of NFS lands for locatable mineral operations pursuant to 36 CFR 228 Subpart A. As proposed, SGP is a locatable minerals operation authorized by the U.S. mining laws and subject to regulations at 36 CFR 228 subpart A. Pursuant to 36 CFR 251.50(a), such operations are not subject to 36 CFR 251 Subpart B.

1.10.3.3 Executive Orders

Comments received stated opinions that Forest Service should either comply or ignore certain executive orders, such as Executive Order (EO) 13766 (*Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects*), 13807 (*Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects*), and EO 13927 (*Accelerating the Nation's Economic Recovery from the COVID-19 Emergency by Expediting Infrastructure Investments and Other Activities*). These EOs were revoked by EO 13990 (*Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*). Forest Service complies with the requirements of valid EOs when completing NEPA and implementing processes.

1.10.3.4 Wild and Scenic Rivers

Comments received stated that if the SGP might jeopardize the eligibility for WSRs designation for a certain river, and the WSR evaluation was not already completed as part of land use planning, a site-specific analysis is required. Eligibility studies have already been conducted. In 1997, the need for a WSR eligibility study on forest lands based on new information and changed conditions was identified and then conducted. The WSR Act states that, in order to be eligible, a river segment must be free-flowing (free of impoundments or diversions) and contain at least one ORV. During this process it was determined that Burntlog Creek was eligible as a recreational segment from the headwaters to the crossing with FR447 and wild from FR447 to the confluence with Johnson Creek with fish as the ORV. Johnson Creek was determined as eligible as a recreational segment with heritage as the ORV.

The South Fork Salmon River (SFSR) was determined as suitable and recommended for designation as a WSR by the BNF and PNF (Forest Service 2003a: Appendix J WSR Suitability Study Report). The ORVs for the recreational segment within the analysis area are botanical, scenic, geology, heritage, and recreation.

Existing or new mining activity on a Forest Service-identified WSR eligible or suitable river segment are subject to regulations in 36 CFR part 228 Subpart A and must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment (FSH 1909.12, Chapter 84.3). The heritage analysis (**Section 4.17**) identified that there would be no adverse effect to the historic transmission line (Line 328), which is the historic property that would be potentially affected along the eligible segment of Johnson Creek. Other historic properties along this segment would be avoided during the transmission line upgrade. There would be no impact to the heritage ORV along this segment. The fish ORV would not be adversely affected associated with the segments of Burntlog Creek identified as eligible as wild or recreational. There is no impairment to the free-flowing characteristics of either segment.

Further, comments stated that a Section 7 analysis under the WSR Act is required to determine whether the SGP would impair the free-flowing character of any impacted WSR. A Section 7 analysis is only completed for a designated WSR; none of the streams or rivers in the analysis area are designated WSRs. Further, 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 SGP.