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Comments: I began reading this report in the hopes that the benefits of this project, including promised legacy cleanup, would outweigh the damage to the environment. Unfortunately, all alternatives for this project negatively impact wildlife habitat and water quality on public lands. In short, I urge the Forest Service and Stibnite gold to show more commitment to protecting the environment and decreasing water use on public land than outlined in any of the alternatives in the report. If the project must proceed, Alternative 2 sounds the least harmful, but it still needs substantial improvements for this project to be sustainable.

Alternatives as described in the report:
Alternative 1 in the DEIS includes construction of roads within the mine site, 3 open pits, ore processing, a tailings storage facility (TSF) in the upper Meadow Creek valley, 4 development rock storage facilities (DRSFs), a new electric power transmission line from the Johnson Creek substation to the mine, a logistics facility, and a maintenance facility.

Alternative 2 would include only 3 DRSFs, public access to the mine site, and two offsite support facilities. It would impact approximately 110 fewer acres than Alternative 1.

Alternative 3 would locate the tailing storage facility and development rock storage facilities in the upper East Fork South Fork Salmon River (EFSFSR) valley instead of the Meadow Creek Valley to reduce potential adverse impacts to WOTUS and federally-listed fish species. Facilities and access roads would be moved to accommodate this new location. Alternative 3 would use a total of 3,610 acres, compared to 3,533 acres in Alternative 1 and 3,423 acres in Alternative 2.

Alternative 4 proposes using an existing mine access route, the Yellow Pine route, instead of the Burntlog Route, which would require 17 miles of new road construction, 14 miles of which is through inventoried roadless areas. The Yellow Pine Route includes public access through the mine site. Alternative 4 would impact an estimated 3,219 acres.

Damage to the environment:
The Stibnite Gold Project (SGP) would require an additional 11.83 cfs of surface water and 1740 acre-feet of groundwater to support ore processing and potable water supply. This is especially important since the area is in a historic drought that is projected to worsen over the proposed project lifetime. Alternative one would reduce streamflow in Meadow Creek, especially early post-closure. Long-term bedrock aquifer groundwater levels may not recover within 10 years of mining cessation. Tailings storage facilities (TSFs) and development rock storage facilities (DRSFs) would lower water table levels by more than 10 feet in some areas under Alternative 1; lining the pit (Alternative 2) would reduce dewatering by 25%. An expected 123.6-257.8 acres of whitebark pine habitat would be removed, and habitat for sensitive plants would be disturbed. Roughly 158-172 acres of wetlands would be lost at the mine site off-focus area, almost a full third of wetlands present. 1,079 acres (Alternative 2) to 1,293 acres (Alternative 3) of riparian habitat would also be lost. High-value wetland functional units would be lost under all alternatives, and 62 (Alternative 4) to 181 (Alternative 3) wetlands would be crossed by new roads. Existing wetlands would also be impacted by construction and alluvial drawdown, as well as water quality changes. All alternatives would restrict bull trout access to Yellow Pine Lake, decrease monthly low-flow discharge at Meadow Creek, and increase water temperature in the EFSFSR, overall harming fish habitat in the basin. The SGP would also increase nighttime light at the mine site and roads and cause permanent landscape changes. Under all alternative plans, 455 to 524 acres of tailing ponds and rock storage facilities will remain in place in the area. Tribal access to the region will be restricted under Alternative 1, although alternatives would mitigate lack of access.

Of the alternatives proposed, Alternative 2 appears to have the lowest risk; it impacts 3,423 acres, has one less development rock storage facility, will impact Meadow Creek surface flows and groundwater level less than Alternative 1, reduce vehicle traffic near streams, and is not projected to produce methylmercury. Alternative 2 mitigates impacts for Meadow Creek and would have less impact on surface flows, which are expected to recover 3 years after mine operations cease. Alternative 2 also has the least negative impact on fish habitat. However, all versions of this project will negatively impact environmental habitat on forest service lands.

Habitat destruction and water use by this project are of particular concern to me. The SGP threatens water quality and fish habitat in a time when the climate of the west is projected to become increasingly drier, so water use by the project may prove even more devastating than the SGP outlines in the report.

As a scientist, a resident of Idaho, and an enjoyer of public lands, I am especially concerned about the impacts of this project. Natural spaces like the ones that the SGP will damage are what makes Idaho uniquely beautiful, and maintaining wildlife habitat is priceless. Notes I took on the report are shared below in case they might be helpful for those who don't have time to read it themselves:

Surface and groundwater quality are evaluated using daily, seasonal, and annual streamflow data and groundwater level data.

The project will keep track of the volume and disposition of mineralized waste generated, which would include 342 MT of development Rock and 100 MT of tailings under Alternative 1, and 346 MT of development Rock and 100 MT of tailings under Alternative 2 and 3.
With no change, legacy waste in Meadow Creek valley, including SODA and Bradley tailings, will be removed; under Alternative 1, 2, and 4, these tailings will be removed and repurposed.

Surface water quality in the East Fork South Fork Salmon River (EFSFSR) will be measured. Mine construction and operation, including road access, is projected to cross 69-71 different streams and expose 1.24 miles (Alternative 3) to 6.5 miles (Alternative 4) of streams to sedimentation and fugitive dust from roads. Alternative 2 has lower sedimentation and fugitive dust due to reduction in heavy vehicle trips, as well as lower potential heavy metal content in the water.

Alternative 2 is expected to decrease the Hangar Flats DRSF groundwater pH from 6.9 to 6.76, releasing more arsenic (0.36 mg/L) than Alternative 1. Fiddle DRSF is expected in increase in pH from 7.21 to 7.45 in Alternative 1 and 7.37 in Alternative 2. Alternative 2 is predicted to decrease the amount of arsenic in the groundwater compared to Alternative 1 and baseline. Alternatives 1, 3, and 4 are projected to produce methylmercury in the EFSFSR.

Vegetation surveys and rare plant surveys were conducted and potential habitat was modeled. All projected alternatives would remove occupied whitebark pine habitat, with 1-4 having the most to least acreage affected, respectively. Alternative 4 would impact 123.6 acres and Alternative 1 would impact 257.8 acres. Bent-flowered milkvetch, least moonwort, Sacajawea's bitterroot, Blandow's helodium, sweetgrass, and Rannoch-rush would also be impacted. Overall, Alternative 4 would impact the smallest extent of modeled potential habitat for sensitive and forest watch species under the action alternatives.

Wetland and riparian areas were delineated on and off-site. Roughly 158-172 acres of wetlands would be lost at the mine site off-focus area, almost a full third of wetlands present. 1,079 acres (Alternative 2) to 1,293 acres (Alternative 3) of riparian habitat would also be lost. High-value wetland functional units would be lost under all alternatives, and 62 (Alternative 4) to 181 (Alternative 3) wetlands would be crossed by new roads. Existing wetlands would also be impacted by construction and alluvial drawdown, as well as water quality changes. The

fewest effects would be seen in Alternative 2, which was designed to minimize water quality impacts. Alternative 2 also has the least negative impact on fish habitat, although all alternatives would restrict bull trout access to Yellow Pine Lake, decrease monthly low-flow discharge at Meadow Creek, and increase water temperature in the EFSFSR.

The SGP would also increase nighttime light at the mine site and roads and cause permanent landscape changes. Under all alternative plans, 455 to 524 acres of tailing ponds and rock storage facilities will remain in place in the area. Tribal access to the region will be restricted under Alternative 1, although other alternatives would mitigate lack of access.