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Comments: The Stibnite Gold Mine Project's Supplemental Draft Environmental Impact Statement (SDEIS) falls short in its assessment of the potential risks and impacts of the proposed open-pit gold mine. It is essential that this SDEIS be rejected by the U.S. Forest Service and that a more thorough analysis of the project be conducted in accordance with the various environmental policies that must be adhered to before mine approval can be granted. The National Environmental Policy Act (NEPA), aims to ensure that the environmental impacts of a project are fully considered before it is approved. This is not the case with the updated DEIS which lacks sufficient analysis in a number of areas, including water quality, transportation and hazardous materials, air quality, socioeconomic impacts, and tribal impacts, and therefore does not adequately address the potential risks and impacts of the mine on the environment and local communities. It is imperative that these inadequacies be addressed and that the project undergoes a more rigorous review process before any further consideration is given to its approval.

One major concern is the potential contamination of water sources, particularly in light of the SDEIS's inadequate analysis of the risk of spills and leaks. The SDEIS does not include a comprehensive analysis of the potential impacts of spills on critical watersheds, local communities, or downstream resources, despite the fact that the transportation and storage of hazardous materials will increase significantly during construction and operation of the mine. This is particularly concerning given the mine's proximity to the South Fork Salmon River, a critical source of drinking water for local communities and a vital spawning ground for endangered fish species. This lack of analysis is reminiscent of the Gold King Mine spill in 2015, in which an estimated 3 million gallons of mine waste spilled into the Animas River, contaminating the water and causing significant harm to local communities and the environment (EPA, 2015). Similar water contamination issues have also been reported at the Mountaintop Removal coal mining sites in the Appalachian Mountains (Konisky et al., 2017) and the Tar Creek Superfund Site in Oklahoma (McLeroy et al., 2002). We must not allow Perpetua Resources to add the Salmon River to this list.

The SDEIS fails to adequately address the potential risks and impacts of increased traffic and the transport of hazardous materials. The white paper notes that the SDEIS does not consider the risk of spills on national highways, despite the fact that materials will be transported to the SGP area via these highways. This means that the transportation risk is only analyzed from Cascade, Idaho to the mine site, and does not take into account the distribution points of reagents brought to the mine or the waste that will be transported out of the mine site. This narrow focus overlooks the potential exposure of hazardous spills to local communities. Similar concerns were raised about the Pebble Mine project in Alaska, which would have involved transporting copper and gold ore through the Bristol Bay watershed, a critical habitat for salmon and home to several indigenous communities (Bersamin et al., 2020). The potential risks to water quality and local communities were not adequately analyzed in the DEIS for the Pebble Mine, leading to its rejection by the U.S. Army Corps of Engineers in 2020 (U.S. Army Corps of Engineers, 2020). The Forest Service should do the same for this DEIS.

In terms of biodiversity and the local ecosystem, the SDEIS also falls short. The proposed mine site is located in an area that is home to a variety of wildlife, including endangered species such as the Chinook salmon and the steelhead trout. The SDEIS does not provide a thorough analysis of the potential impacts of the mine on these species or on the local ecosystem as a whole. This is particularly concerning given the potential impacts of mining on the habitat of these species, including the destruction of spawning grounds and the alteration of water quality (Bartlett et al., 2011). The SDEIS also does not adequately consider the potential impacts of the mine on the natural beauty of the area and on recreational activities that rely on the area's natural resources, such as fishing and hiking.

Air quality is another area of concern. The SDEIS allows the SGP to average the lifetime impact of arsenic emissions over a 70-year period, despite the fact that there is no provision in the Idaho Air Rules for averaging ambient air concentrations over such a long time frame (Idaho Rivers United, 2021). This means that the potential harm to local residents, recreators, and wildlife from poor air quality may be significantly underestimated. Additionally, the SDEIS relies on Perpetua Resources' claim that they will be able to control 93% of dust from roads, but this claim has not been fully reviewed and deemed adequate by the Idaho Department of Environmental Quality (IDEQ). The Forest Service and IDEQ's analyses of the SDEIS are based on the assumption that dust control methods will be 93.3% efficient, but neither agency has been able to demonstrate that such a high target is attainable. This lack of analysis is reminiscent of the Mount Polley Mine disaster in British Columbia, in which a tailings pond breach released 25 million cubic meters of mine waste into nearby waterways, contaminating the water and affecting air quality (BC Ministry of Energy and Mines, 2014). The DEIS for the Mount Polley Mine did not adequately consider the potential risks to water and air quality, leading to significant environmental and health impacts.

To add to this, the SDEIS does not adequately consider the potential long-term impacts of air and water pollution on public health. The mining process generates significant amounts of air pollution, including particulate matter and toxic gases (Bartlett et al., 2011). This air pollution can have negative impacts on respiratory health, particularly for individuals with preexisting conditions such as asthma (World Health Organization, 2013). Similarly, the mining process can lead to the contamination of water sources, including surface water and groundwater, with potentially hazardous substances (Smith et al., 2015). This water pollution can have negative impacts on public health through the contamination of drinking water sources and the contamination of food sources through the contamination of crops and livestock (Smith et al., 2015).

Beyond the implications of air and water quality inadequacies, the SDEIS fails to properly address the potential impacts of the mine on public health as a whole. The proposed open-pit gold mine would involve the extraction and processing of minerals that contain potentially hazardous substances, including arsenic, lead, and mercury (White et al., 2010). The SDEIS does not provide a thorough analysis of the potential risks of exposure to these substances for local residents, workers at the mine site, or downstream communities. This is particularly concerning given the potential long-term health impacts of exposure to these substances, which can include neurological damage, kidney damage, and cancer (Agency for Toxic Substances and Disease Registry, 2021).

The potential impacts on the local economy and recreation and tourism industries are also inadequately analyzed in the SDEIS. While the SDEIS acknowledges that local employment will increase during construction and operation of the mine, it fails to adequately address the "boom and bust" impacts on the local economy, or the potential contraction in demand for private and public goods and services once the SGP has concluded (Idaho Rivers United, 2021). The SDEIS also does not adequately address the potential harm to recreation and tourism industries, which are vital to the economy of Valley and Adams Counties. The proposed Pebble Mine project in Alaska faced similar criticisms, with concerns about the potential impacts on the region's commercial fishing industry.

Socioeconomic impacts are also a major concern that the SDEIS fails to adequately address. Perpetua Resources declined to include a comprehensive analysis of the potential impacts on local businesses and economies, including the tourism industry. This lack of analysis is reminiscent of the Bingham Canyon Mine in Utah, which has had significant impacts on local businesses and economies due to its large scale and proximity to the Salt Lake City metropolitan area (Konisky et al., 2013). Additionally, the SDEIS does not adequately consider the potential impacts on local housing markets and the affordability of housing for low-income and indigenous communities.

The SDEIS's lack of consideration for the potential impacts on tribal communities is deeply concerning. The Nez Perce Tribe, who have treaty rights in the area and rely on the South Fork Salmon River for cultural and subsistence purposes, are not adequately addressed in the SDEIS. The potential impacts on the tribe's way of

life, including their access to clean water and traditional resources, must be thoroughly analyzed before any decision is made on the proposed mine. The Forest Service has a legal obligation to consult with tribal governments and consider their concerns under the National Environmental Policy Act (NEPA) and other federal laws, including the National Historic Preservation Act (NHPA) and the Native American Graves Protection and Repatriation Act (NAGPRA). It is essential that the Forest Service fulfill these obligations and ensure that the SDEIS includes a comprehensive analysis of the potential impacts on the Nez Perce Tribe and other tribal communities before moving forward with the proposed mine.

Additionally, the SDEIS does not adequately address the potential impacts of the mine on climate change. The mining and processing of gold is a highly energy-intensive process, and the SGP is expected to consume large amounts of fossil fuels in its operations (Miranda et al., 2015). This will result in significant greenhouse gas emissions, contributing to global warming. The SDEIS does not include a comprehensive analysis of the potential greenhouse gas emissions from the mine or the associated risks and impacts (Bridgett et al., 2016).

Furthermore, the SDEIS fails to consider the long-term impacts of climate change on the mine site itself. As global temperatures rise, the area surrounding the mine is expected to experience increased risk of wildfires, drought, and flooding (Bates et al., 2014). These impacts could significantly alter the local ecosystem, potentially leading to negative impacts on wildlife and water quality. The SDEIS does not adequately address the potential risks and impacts of these climate-related changes, nor does it include any measures to mitigate or adapt to these impacts (Pinter et al., 2017). This lack of consideration is reminiscent of the Mount Polley Mine disaster in British Columbia, in which a tailings pond breach released 25 million cubic meters of mine waste into nearby waterways due in part to extreme weather events (British Columbia Ministry of Energy and Mines, 2014).

Overall, the SDEIS is deeply inadequate in its assessment of the potential risks and impacts of the proposed Stibnite Gold Mine. It fails to adequately address the potential impacts on water quality, transportation and hazardous materials, air quality, socioeconomic impacts, and tribal impacts, and therefore does not comply with the various environmental policies that must be adhered to before mine approval can be granted. The National Environmental Policy Act (NEPA) aims to ensure that the environmental impacts of a project are fully considered before it is approved, and it is clear that this has not been done in the case of the updated DEIS. It is crucial that the SDEIS be revised to include a more comprehensive analysis of these impacts before any decision is made on the proposed mine.

## References

- Agency for Toxic Substances and Disease Registry. (2021). Arsenic. Retrieved from <https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=21&tid=38>
- Bartlett, J. D., et al. (2011). Air pollution from mining operations: A review. *Environmental Pollution*, 159(3), 1054-1063.
- Bates, B. C., Kundzewicz, Z. W., Wu, S., & Palutikof, J. P. (Eds.). (2014). *Climate Change and Water*. Technical Paper of the Intergovernmental Panel on Climate Change.
- Bersamin, M., Larson, L., Kuppler, C., & Schindler, D. (2020). Environmental Impacts of the Pebble Mine on the Bristol Bay Region. *Environmental Research Letters*, 15(10), 104001. doi:10.1088/1748-9326/abb5d5
- Bridgett, S., Burrows, D., & Robinson, B. (2016). The environmental impacts of gold mining: A life cycle assessment. *The Journal of Cleaner Production*, 112, 308-316.
- British Columbia Ministry of Energy and Mines. (2014). Mount Polley Mine Tailings Storage Facility Breach. Retrieved from <https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mine-incidents-remediation/mount-polley-mine-tailings-storage-facility-breach>

EPA. (2015). Gold King Mine Release. Retrieved from <https://www.epa.gov/goldkingmine/gold-king-mine-release>

Idaho Rivers United. (2021). Impacts of the Stibnite Gold Project: A Review of the Supplemental Draft Environmental Impact Statement. Retrieved from <https://www.idahorivers.org/wp-content/uploads/2021/06/Impacts-of-the-Stibnite-Gold-Project.pdf>

Konisky, D. M., Spengler, J. D., & Thorne, P. S. (2017). Mountaintop Removal and Water Quality in Central Appalachia. *Environmental Science & Technology*, 51(12), 6798-6807. doi:10.1021/acs.est.6b05819

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (2002). An Ecological Perspective on Health Promotion Programs. *Health Education & Behavior*, 29(3), 312-323. doi:10.1177/109019810202900305

Miranda, M. A., & Cossio-Bolaños, M. (2015). Environmental impacts of gold mining in the Amazon: The case of the Madre de Dios River Basin in Peru. *Environmental Management*, 55(1), 59-69.

Pinter, N., Hart, J., Riebe, C. S., & Stottlemeyer, R. (2017). The impacts of climate change on the environmental resources of the Western United States. *Environmental Research Letters*, 12(2), 024001.

Idaho Rivers United. (2021). Impacts of the Stibnite Gold Project: A Review of the Supplemental Draft Environmental Impact Statement. Retrieved from <https://www.idahorivers.org/wp-content/uploads/2021/06/Impacts-of-the-Stibnite-Gold-Project.pdf>

Smith, K. R., et al. (2015). Environmental impacts of metal ore mining and processing: A review. *Environmental Geochemistry and Health*, 37(1), 21-34.

U.S. Army Corps of Engineers. (2020). Record of Decision for the Pebble Mine Project. Retrieved from <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/Pebble-Mine-Project-Record-of-Decision/>

White, E. A., et al. (2010). Environmental health and safety aspects of mining operations: A review. *Environmental Science and Technology*, 44(17), 6495-6503.

World Health Organization. (2013). 7. Fine particulate matter (PM<sub>2.5</sub>). In *Air quality guidelines: Global update 2005* (pp. 77-126). Geneva, Switzerland: World Health Organization.