

January 6, 2023.

I am submitting this letter to support the preferred alternative for Perpetua Resources' Stibnite Gold Project.

I retired in 2020 after more than 40 years with the Bureau of Land Management (BLM), and a shorter time with the United States Forest Service. I spent my career in land and mineral management.

Before retirement, I served in numerous positions in the BLM. My last civil service position was as the Chief Mineral Examiner, the senior locatable minerals program lead for the BLM's headquarters office. I was concurrently the head of BLM's National Mineral Team (NMET) and as the Chair of the BLM's Mineral Examiner Certification Panel. During my time as the Panel's chair, I combined both the BLM and the USFS Panels to better use of the professionals in both agencies. I held Certified Mineral Examiner status from BLM and USFS, and BLM Certified Review Mineral Examiner status. Job titles don't always reflect job experience, so my work was always multi disciplinary.

I worked in all phases of NEPA through my career. I'm familiar with the USFS surface management regs for locatable minerals at 36 CFR § 228 Subpart A. I'm familiar with the Stibnite region, having led a placer mining claim validity examination in the Gospel-Hump area during my USFS time.

#### Comments

It is rare that a land manager is presented with a plan of operations that is expected to result in a neat and well-operated mine, but one that also remediate past damage is rarer still. Perpetua Resources has presented the USFS with such an opportunity. The Preferred Alternative in this EIS is one of the best I have ever seen.

I believe that the EIS meets the National Environmental Policy Act (NEPA) standards. The on-line reading room provides supporting documents; important for someone who lives a distance away who is also an interested party. The EIS (1) explains the proposed action, (2) the environmental study describes existing conditions (good and bad), (3) the potential effects of the company's proposed action, (4) alternatives, (5) effects of the proposed mitigation measures.

I recommend adoption Preferred Alternative for the Perpetua Resources project.

- It provides a maximum amount of environmental protection
- It's reasonable and consistent with both the USFS's Purpose and Need and the operator's rights to develop their mineral deposits under the 1872 General Mining Laws as amended
- It meets USFS regulations and other applicable laws, and authorities.
- The changes and mitigation measures outlined in the Preferred Alternative reduce impacts and provide additional mitigation measures.
- The design of tailing storage is excellent. The problems that have afflicted impoundments elsewhere globally will be avoided. This design is state of the art. It's one of the best I have ever reviewed.

I further recommend Adoption of the Preferred Alternative for commodity-specific reasons.

- Antimony is a critical mineral. It has certain chemical uses for which there are no reasonable substitutes.

- Fireproofing of safety wear, such as wildland firefighter uniforms, uses Antimony. Less often stated is that Antimony can substitute for lead in numerous uses that reduce toxicity in the environment. Anyone who lives or works in a house, apartment or building with copper plumbing built after the middle 1980s depends on antimony for safe water.
- Antimony replaced lead in plumbing solder. Before the middle 1980s, solder for plumbing contained about 40% tin and 60% lead. The lead could slowly leach into a home's drinking water. Antimony replaces lead in other types of solder and related alloys, also reducing their toxicity.
- Substitution is something we can all agree on. In an August 24, 2020 press release, Trout Unlimited (<https://www.tu.org/press-releases/53306/> accessed 2020-10-22), made this statement “. . . Along with responsible development where and how it can be done safely, other strategies include developing alternative technologies and emphasizing recycling to reduce demand for new mines.” The Preferred Alternative utilizes an existing mine.
- Antimony now used in the United States is imported; most from China.

#### Reclamation & Restoration:

A century of mining at Stibnite left lasting environmental impacts. The site won't restore itself, and it would be too expensive for the USFS to undertake such a project on its own. Perpetua Resources includes restoration in their proposal, to be completed at their own expense. Their wetlands mitigation plan offers a net gain.

#### Abandoned Mine Site Issues

Much of the mining and development at Stibnite occurred under the U.S. Government's wartime emergency production mandates during World War II and the Korean Conflict, in the pre-regulation years. Results noted in the EIS and supporting documents include high levels of arsenic and antimony. These is probably from contamination, above natural levels and would require positive action to remedy.

There are numerous piles of rock, tailings and other disturbance left over from prior mining processing operations in the area. Perpetua proposes to place their facilities in these areas to not disturb additional ground. It is evident that Perpetua developed their POO with a goal of sustainable mine closure.

#### My Conclusions

NEPA requires a No Action alternative, but a No Action alternative would leave the toxic mess just as it is. Ergo, I support the Preferred Alternative for these reasons.

- The Preferred Alternative meets the requirements of U.S. Law and USFS regulations.
- The Preferred Alternative has all around the best benefits for USFS resources.
- The Preferred Alternative remediates past damage.
- The Preferred Alternative maintains and improves access, and recreational benefits are maintained.
- The Preferred Alternative will help minimize the impacts of mine traffic and reduce the risk of accidents and spills. According to the EIS, less than 10 miles of the Burnt Log Route is within a half mile of a waterway compared to 27 miles on Johnson Creek

- The Preferred Alternative reduces import dependency.
- The Preferred Alternative is in the public interest.

Additional Important Conclusions:

- The Burnt Log Road keeps mine truck traffic away from residential areas.
- Both the Johnson Creek Road and Stibnite-Yellow Pine Road run parallel to major fish bearing streams unlike the Burnt Log Route.
- Most of the proposed route along the Burnt Log Route is an existing road and I think the benefits of the few temporary & small road extensions to complete this route to the site outweigh the impacts. The few road extensions would be reclaimed after mine closure.
- The existing roads, such as Johnson Creek – Stibnite Roads to the site, while used in the past, are not suitable for long-term use. The system is narrow with tight switchbacks, there are locally steep grades, it parallels a river with anadromous fish, and much is within a flood plain. This road system was built under wartime emergency conditions and there was little, if any, thought to environmental effects.

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