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First name: Michael

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Organization: Integra Delamar

Title: Engineering Manager

Comments: Payette Forest Supervisor,

I am writing to express my support for the Perpetua Stibnite Gold Project and respectfully request that the Forest Service complete the permitting process in a timely fashion to enable the benefits of the Stibnite Gold Project to become reality. The 2021 MMP Alternative as described in the Supplemental DEIS is a significantly improved mine plan that includes sufficient mitigation strategies to effectively reduce environmental impacts, thereby meeting the requirements of NEPA. Moreover, the Supplemental DEIS and extensive supporting information is comprehensive and adequately discloses environmental effects of the project to the public.

I have 10+ years in the mining industry and am currently the engineering manager for Integra DeLamar.

My background and experience make me well qualified to comment on the project's overall mine plan and environmental protective measures integral to the mineral processing circuit.

As a mineral process engineer, I have paid particular attention to Perpetua's development of the overall mine plan and mineral process flow sheet since the 2020 DEIS and associated pre-feasibility study for the project. The permitting process and supporting environmental analysis and engineering, identified a number of impacts which could be better avoided through updated mine plans and process modifications. The USFS and Perpetua should be credited with their identification and implementation in the current 2021 MMP Alternative.

The updated mine plan in the 2020 feasibility study, on which the 2021 MMP is based, included extensive modifications to the mine schedule, dump and open pit configurations which offer a number of environmental and operational advantages. The USFS has appropriately identified that the stockpiling strategy would "increase utilization of the mineral resource" (SDEIS 4.2.2.2). The stockpiling strategy also has the effect of keeping low-grade mineralized material out of the waste rock dumps resulting in reduced metals leaching potential and an overall reduction of waste rock volume, as lower grade material mined early in the project is ultimately processed rather than wasted. This, coupled with the plan to reduce the size of the Hangar Flats open pit, allowed for elimination of the Fiddle waste rock storage facility. The reconfiguration of the TSF buttress waste rock dump, in which waste rock is placed along the northeast side of the valley, allows for a longer length of stream habitat below the buttress relative to prior configurations. These key project modifications allowed the USFS and Perpetua to address stakeholder comments regarding project footprint while improving project economics and operational feasibility through increased gold production and reduced water management requirements.

The current mineral process circuit flowsheet and operating conditions, have been tailored to reduce potential environmental project impacts while achieving high gold and antimony recoveries, as detailed extensively in the feasibility study metallurgical testwork and summarized in the SDEIS. The addition of limestone to the process circuit has three advantages; first, it achieves desired pH and rheology conditions for gold deportment; second, it avoids the need to truck lime to site decreasing haulage traffic; and third, it reduces the formation of soluble arsenic compounds through formation of crystalline compounds. Furthermore, pH-temperature stability testing conducted for the feasibility study showed that POX discharge neutralization carried out in two stages better preserves the stability of the ferric arsenate precipitate. This recognition spurred Perpetua to propose the hot arsenic cure process if needed. Arsenic stability was not identified as an issue in the DEIS, or by project opponents; the company undertook the additional metallurgical testing on its own volition in recognition that it could be problematic environmentally. Overall, the extensive testing conducted by Perpetua to improve the overall geochemical stability of the tailings in the TSF, and use of locally sourced limestone, is representative of the company's commitment to environmentally responsible mining practices and common sense design principals. The Supplemental DEIS should appropriately recognize and acknowledge the overall geochemical and traffic-related benefits of the updated mineral process flowsheet.

Sincerely,

Michael Spicher