28 October 2020

I am writing to comment on the proposed Stibnite Gold Project DEIS. For the past 28 years I have lived, worked, and now enjoy retirement in McCall. Having spent my career as a fisheries biologist for the State of Idaho I have am very familiar with the site of the proposed project and the aquatic resources therein. For 20+ years I directed a regional program to monitor distribution and status of all stream dwelling salmonid fishes throughout the South Fork Salmon River basin. My crews monitored fish populations and their habitat annually throughout the Stibnite mine area as well as upstream and downstream from the site. I have witnessed past mining and restoration activities in the mine area starting with mid-1990s efforts to build a channel around the Bradley tailing ponds, precariously perched on the northeast slope of Meadow Creek. I monitored the results of attempts to isolate Bradley tailings by filling the meadow with new mountains of SODA; and watched as lower Meadow Creek was reconstruction to bypass hotspots of toxic waste and add back some of the sinuosity that a high elevation meadow stream should have. I was responsible for the initial reintroduction of adult Chinook Salmon upstream of the Yellowpine Pit in 2000. Over several years of subsequent adult chinook out-planting I monitored successful spawning and rearing in that reconstructed Meadow Creek.

The South Fork Salmon River drainage was, and continues to be, a stronghold for migratory fish and wildlife. Its strength is due to the variety of aspects, elevations, and habitats that are spread across its four major tributaries; I refer to upper South Fork, Secesh River, Johnson Creek, and East Fork South Fork Salmon River (EFSFSR). The resiliency of this watershed's ability to support keystone species of Pacific Salmon, and bull trout depends on the maintenance of the diversity of the habitats throughout it. The EFSFSR is unique in South Fork watershed because of its high elevation, spring fed, east/west aspect. The EFSFSR is critical for persistence of bull trout with that species' need for cold summer and fall waters. The cold water and high elevation of EFSFSR also provides for more protracted spawning, rearing, and smoltification for Chinook Salmon and Steelhead trout, maintaining diversity within those species; diversity necessary for the population as a whole to survive short-term local habitat catastrophes, like the extensive mass wasting of the 1964-65 floods, and numerous localized geomorphologic events that have affected riverine habitat and instream connectivity.

In the limited time I have had to review this DEIS I was able to address just a few topics. My specific comments to this DEIS are organized by general topic, below.

Purpose and Need

This section should be the foundation upon which the proposed project is based, but I found very little substantive justification for any of the action alternatives. How is the public to weigh our society's need for extraction of gold, silver, and

antimony from this site specifically, with the associated certain destruction of critical habitat and intrusion of mine related infrastructure in the EFSFSR and neighboring areas, versus acquisition of minerals from alternative sites within the U.S.? Midas Gold should be required to explain in detail how the minerals they hope to mine would fulfill U.S. national strategic needs and why those needs cannot be satisfied elsewhere. I do not believe that gold is a strategic mineral. Where will Antimony be refined and how will it be used? What percentage of the needed Antimony would be fulfilled by SGP? Are there alternatives to Antimony that can fulfill strategic needs?

Environmental Consequences

4.12 Fish Resources

It is clear that fish and fish habitat will be obliterated throughout the mine site for the duration of the project. Many pages are devoted to detailing how individual fish will be saved from streams as mining commences. But very little attention is given to what fish resources will remain in the watershed outside of the mine site after 20 years of increased temperatures and decreased stream flow caused by both mining and a warming world. Please present analyses of post-mining status of fish populations and habitat that incorporate existing models that consider impacts of climate change on species of concern. The FS Rocky Mountain Research Station (Dan Issak et al.) has done extensive research on this that could inform these analyses. I see none of that work used in this DEIS. Why?

4.16 Access and Transportation

Many miles of road that parallels streams will be improved and maintained for SGP to proceed. Much detail is given to road engineering and efforts to decrease delivery of sediment to streams. It is true that dirt roads can be a chronic source of delivery of fine sediment to waterways if not managed properly. However, the steep granitic soils of the SFSR are naturally very erosive. Streams naturally maintain function and provide high quality habitat through channel complexity. Channel complexity is maintained by sinuosity, roughness of substrate and large woody debris. Roads that parallel streams often encroach upon floodplains, reducing sinuosity. Large wood that falls across roads is routinely removed and not delivered to the stream. Log jams are routinely removed to save engineered stream crossings.

I did not find any proposed mitigation measures that would be implemented to preserve channel complexity and maintain proper functioning condition in the streams that will incur increased road engineering and traffic. Please provide a plan for preserving stream channel function throughout the SGP roads system.

3.19 and 4.19 Recreation

These sections rely on outdated information, some more than 10 years old. Idaho is experiencing rapid population increase, and outdoor recreation is important to a large percentage of those people. Please use more recent information (e.g., Bureau of Economic Analysis 2018 and Idaho Business for the Outdoors 2020) to describe current outdoor recreation. Outdoor recreation in central Idaho is on the increase, not only due to population increase, but also due to increased leisure time available to many people, and ever more toys to play with in the outdoors. Anticipated trends in outdoor recreation over the next 20 years, both with and without SGP must be analyzed to provide a realistic comparison of alternatives 1-4 with Alternative 5. Analyses of Recreation should incorporate analyses of Access and Transportation as it relates to increased recreational use of roads.

Summary

There was inadequate access to this DEIS, being available only online, with a very limited comment period provided to the public. A full 120 days should have been granted. Formats of the document other than online should have been available for review (i.e., hard copies available at local libraries, cd's available to individuals without adequate access to internet).

Alternative 5 is dismissed throughout the DEIS by simply stating "no change from baseline conditions." Many changes to our environment and human population are anticipated over the next 20 years. The Forest Service, Nez Perce Tribe, and other entities have developed plans for projects to improve fish habitat, decrease delivery of chemical pollution from legacy mining, and manage for increased recreation throughout the SFSR over time. Implementation of those plans is ongoing now. Enough is known about how baseline conditions may change throughout the area that would be impacted by SGP to provide contrasting analyses that can be compared to the action alternatives. The issue of fish and fish habitat is just one example. Please provide detailed analyses of Alternative 5 for all Environmental Consequences addressed in this DEIS. I posit that Alternative 5 is an action alternative and must be treated as such.

The current Forest Plan incurred extensive vetting by the public, including government agencies, tribes and NGOs. This plan must remain intact until it is formally revised. Midas is requesting many amendments be made to allow SGP to proceed. This should simply not be allowed.

Alternatives presented included much incomplete analyses, some of which are promised in the Final EIS. How is the public to reasonably review and comment substantively on incomplete information? Supplemental documents should be

provided to the public as analyses are completed, prior to completion of the EIS. Please respond to the public as to how this will be accomplished.

I come back to the basic purpose and need of this proposal, and analyses of the proposed project's environmental and societal impacts, all of which are woefully inadequate, to make informed decisions about the best future for this unique landscape we call the South Fork of the Salmon River. Please complete analyses and submit a revised DEIS or supplemental documents to complete this review.

I do wish to thank the staff of the Forest Service, who must respond to the many comments submitted regarding this proposed project, for their hard work with this important and difficult task.

Respectfully, Kimberly A. Apperson