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My name is Karen Balch. I am a private-practicing mobile, small animal veterinary practitioner and treat a wide variety of domestic animals primarily in Valley County. For the past 14 years, I have been a fulltime resident in Cascade. I am grateful to live on the North Fork Payette River, a migratory pathway rich in raptors, swans, herons, pelicans, cranes, geese, otters, mink, beaver, raccoons, skunks, deer, coyotes, and an occasional cow that has crossed the river for “greener grass.” Valley County is a photographer’s dream; this passion allows me to witness magnificent wildlife and observe natural behaviors. Admittedly, I am a conservationist and promote the importance of stewardship that depends on healthy habitat. For many years I worked for the US Forest Service in the Gifford Pinchot NF as a forestry technician primarily in fire control. I supervised a Fuels Management crew and was Squad Boss rated for project forest fires.

**I am asking the Forest Service to exercise its authority to choose Alternative 5 or the No Action Alternative, which is “no new mining”.** My most important concerns are below:

**Environmental Contamination and Water**

Mining as proposed by the Stibnite Gold DEIS profoundly threatens the quality and inherent safety of surface water and ground water. Contaminated water (containing arsenic, antimony, and mercury) literally endangers all downstream microbiota, aquatic habitats and species, including Snake River Chinook Salmon, Snake River Steelhead Trout, and Columbia River Basin Bull Trout. All these fish are legally designated “threatened” under the Endangered Species Act. Fish and fresh-water crustaceans are one of the most common sources of methylated mercury that can biomagnify or concentrate throughout trophic levels of food chains, including avian and mammalian species, and humans via food consumption. Heavy-metal pollution starting at the headwaters of the East Fork South Fork Salmon River contaminates all downstream waters, ie. creeks, streams, tributaries, rivers ultimately amassing at the Columbia River into the Pacific Ocean, the destination of the anadromous fishes – Chinook salmon and steelhead.

Pollution of any sort degrades nature. As a veterinarian, I have unique working knowledge of biological processes across species, including various disease etiologies (or causes) that can present in various diseases. I have professionally investigated real and potential poisonings of domestic animals. I am particularly concerned about zoonotic diseases (diseases that are transmissible between animals and humans) and emerging diseases that may be fungal, bacterial, viral, endo- or ectoparasitic, infectious, or toxic, such as those caused by heavy metals.

Notably, the level of heavy-metal toxicity associated with historic mining at the Stibnite site was sufficient that the EPA proposed Stibnite as a Superfund site on the National Priorities List in 2001 and a remedial investigation started in 2002. ([https://cumulis.epa.gov/supercpad/Site/index.cfm?fuseaction=second.schedule&id=1000236](https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.schedule&id=1000236)).

Unhealthy habitats impair life forms making them susceptible to increased morbidity and mortality of disease in general. Increasing temperatures accompanying climate change directly or indirectly impact habitat and magnifies the adverse effects of environmental toxins such as heavy metals in waterways.

In 2019, the US Department of the Interior and US Geological Survey completed the scientific investigations report titled: “Arsenic, Antimony, Mercury, and Water Streams near Stibnite Mining Area, Central Idaho, 2011-17.” In short, this study documents altered stream configuration and habitat in the study area. Dangerous toxin levels for aquatic and human life are directly associated with documented levels of arsenic, free cyanide, lead, mercury, silver, zinc, and antimony. Even this most recent USGS study, many years after the most recent active mining activity in the Stibnite area, identified harmful levels of arsenic, antimony, and mercury contamination in those local waterways. From a veterinary perspective, I find this profoundly disturbing knowing that waters contaminated with heavy metals are the relied-upon water source for fishes, amphibians, insects, birds, domestic livestock, domesticated pets and people. Heavy metal contamination of waterways is an evitable consequence of mega-scale mining, whether historical or contemporary.

I am also disturbed that the Forest Service allowed the British Columbia-based Midas Gold Corp. authority to author the 2019 Biological Assessment (BA) report referenced above. As U.S. Rep. Betty McCollum, Chair of the House Appropriations Subcommittee stated: “Allowing a mining company to author its own BA on its project's potential impacts to ESA-listed species creates potential conflicts of interest and undermines public confidence in the permitting process." In short, as the beneficiaries of the proposed mining were allowed to write the official Biological Assessment there is reason to wonder if the report was written to “whitewash” or “obfuscate” even more damning conclusions. Conclusions that could potentially engender distrust of Midas Gold and be seen as possible efforts to strong-arm the federal agency that should be overseeing and scrutinizing the mining proposal. The obvious conflict of interest casts doubts on the integrity and transparency of the Forest Service overseeing the permitting process.

Damage to water and water resources is among the worst environmental consequence of gold mining. As reported, gold mining in modern times is very destructive to water resources as evidenced in Nevada where there has been a huge gold mining industry. According to the US Geological Survey, some of the largest open-pit mines in northeastern Nevada have resulted in the water table dropping roughly 1,000 ft. in some areas. Reportedly, one gold mine may consume 100 million gallons per day. Water systems are commonly contaminated from cyanide, processing chemicals and acid mine drainage that runs off exposed rock.

I have serious concerns about the resulting heavy-metal contamination in the East Fork South Fork Salmon River and all downstream flows that will inevitably be associated with any new commercial mining in the Stibnite area. Detrimental impact on our future recreation in and around any associated rivers, streams, lakes, and reservoirs is truly secondary to the ongoing profound harm to impacted ecological systems. Ongoing heavy metal poisoning of rivers simply threatens the diversity and robustness of aquatic life (in particular protected fish) and, if eaten frequently enough, other life forms such as ospreys, waterfowl, and even humans. Midas Gold’s proposal to bury the EFSF Salmon River and reroute legally “threatened” Chinook salmon, steelhead, and other fishes through a mile-long concrete tunnel is experimental at best with little to no supporting science. How would this tunnel effect other large wildlife, such as bobcats or bears, that could be swept in and possibly entrapped?

**Restoration, Cost and Bonding**

At the heart of Midas Gold’s public media campaign is a promise to heal the historic mining blight of the Stibnite area that occurred over decades and decades ago. That damage is adjacent to and intrudes on the largest Primitive Area in the lower 48 states – the joined Gospel-Hump Wilderness and Frank Church River of No Return Wilderness.

Midas Gold’s concept of restoration is to redisturb the current Stibnite mine site and excavate at the minimum an additional 800 acres of undisturbed wildlife and fish habitat. Two of three enormous mining pits projected to be left permanently on the landscape in perpetuity with single-layer liners that will eventually leak. All liners leak eventually due to the natural permeability of materials that also have defects. It is sobering that a 6.5 magnitude earthquake rolled through Idaho’s Sawtooth Mountain Range on March 31 of this year. With an epicenter area 45 miles west of Challis, the center of this major earthquake was only a few dozen miles east of Stibnite. This was the second largest earthquake in Idaho history, and even 3 months later the area is experiencing a string of aftershocks, some registering as high as magnitude 4.8 (Idaho Statesman, June 25, 2020). Earthworks’ 2013 U.S. Gold Mines Spills and Failures Report study that all 27 active U.S. gold mines had experienced at least one pipeline spill or other accidental release.

In addition, how would this mining operation fair in the face of a massive forest fire? Our area has historically been subject to forest fires, and this year the Buck Fire bordered Johnson Creek, which has been proposed as one access possibility. And the fire was even closer to the proposed Burnt Log Road route that skirts the Wilderness boundaries. While forest fires are a natural phenomenon, what happens when holocaust fires burn right over the top of a mining operations with filled with toxic chemicals or over giant open pit ponds filled with cyanide?

Obviously, mining companies are commercial enterprises which must generate monetary profits for their owners and stock holders or cease to exist. Restoring the Idaho landscape back to its pre-mining pristine habitat does not directly make money for mine owners or stock investors, but rather is simply a cost of doing business. All successful businesses regulate and minimize the cost of doing business. While Midas Gold‘s website states, “Midas Gold is committed to following all of the modern regulation practices and financial assurance calculations so we can restore the site,” details specifying the actual particulars of bonding are not available.

What is the monetary amount of the bond? What formula is used to calculate bonding and by whose calculations?

What are the terms of the bond that the government is requiring for actual mining to begin?

Historically, western United States is littered with abandoned mines – literally mined out with now-forgotten owners having declared bankruptcy to avoid financial liability. As an example, Montana’s Zortman and Landusky gold and silver mines, originally owned by the Canadian company Pegasus Gold Corp, went bankrupt and folded 20 years ago. As of March 2019, that abandoned mine continues to leave a legacy of water pollution and a cleanup bill nearing $100 million that is expected to continue in perpetuity. Consider Colorado’s Summitville Mine that cost American taxpayers over $100 million in EPA cleanup from environmental damage caused by mining leakage in the 1980s. In 2021, the federal government will relinquish Summitville remediation back to Colorado state taxpayers costing $2 million annually in perpetuity – it’s the mine that keeps on giving. In hindsight, how would a mining site that is permanently polluted, such as Summitville, be bonded at all?

Given the past history of polluting exhausted gold mines abandoned in western United States, Midas Gold must provide robust financial evidence of fiscal bonding before permitting should even be allowed. And to appreciate the litany of devastation and death from cyanide gold mining see the list of gold mining disasters resulting from dam failure, cyanide leaking into the environment and inappropriate toxic waste discharge related to gold mining using gold cyanidation technique (https://en.wikipedia.org/wiki/List\_of\_gold\_mining\_disasters).

What assurances does the American Public have that Midas Gold will not simply declare bankruptcy or sell its mining interests to another company such as Barrick Gold Corporation?

What assures that any mining company successors to Midas Gold Idaho will be bound by any previous restoration agreements?

What iron-clad incentives or agreements prevent Midas Gold from simply abandoning its stated restoration plans after having gutted more pristine Idaho wilderness and profited from whatever gold was mined?

**Wildlife**

I am extremely concerned about wolverines in particular. Some scientists suggest that wolverines should be officially listed as “endangered” under the ESA. The Payette NF and Boise NF have a seemingly permanent but small resident population of wolverines. Increased human activities around crucial winter denning areas could directly impact this animal whose literal existence is already of concern to scientists. As reported by Keith Ridler of the Associated Press in an article: “Tribe doesn’t want this Idaho mine to reopen but U.S. environmental review moves ahead” published August 15, 2020, “…The project includes about 500 acres of patented mining claims and 2,900 unpatented claims on the Payette National Forest and Boise National Forest.” How are resident wolverines being protected within Midas Gold mining area?

**Indigenous American Rights**

Commercial gold mining at Stibnite violates the 1855 Treaty rights of the Nez Perce Tribe which is legally recognized as a sovereign nation within the United States. In the early eighteen-hundreds, the Nez Perce Tribe occupied over 13 million acres of western America now identified as parts of western Montana, southeastern Washington, northeast Oregon, and, most relevant to this discussion, north-central Idaho. The 1855 Treaty explicitly reserves a permanent homeland as well as “the right to fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land.”

Midas Gold Idaho’s footprint is entirely within the Tribe’s aboriginal territory as well as within the area determined by the Indian Claims Commission to have been exclusively used and occupied by the Tribe. The Project is also located on the Krassel Ranger District of the Payette National Forest. The lands comprising the Payette National Forest are open and unclaimed and subject to the Tribe’s treaty-reserved rights. In my view, the 1855 Treaty with the Nez Perce Tribe supercedes the 1872 Mining Act both in time and importance.

Consistent with the Nez Perce Tribe’s notion of hereditary stewardship of the land, the Tribe’s Department of Fisheries Resources Management currently spends $2.5 million annually on hatchery supplementation, fishery research, and watershed restoration near, and downstream of, Midas Gold’s proposed mine. The Tribe’s work to restore Chinook salmon runs in the South Fork Salmon River watershed sustainably contributes to the area’s economy and quality of life.

I adamantly support the following words of the Chairman of the Nez Perce Tribe, Shannon Wheeler: “Allowing Midas Gold to move forward with their proposed mine will undo the hard work of so many. We have yet to see a mine that does more good than harm and it is our responsibility to look out for our future generations. This mine, if approved, will surely be to the detriment of those future generations.”

**Conclusion**

The Forest Service oversees permitting over these magnificent lands as stewards for the American public that own them and for the Native American indigenous peoples who have lived in the area since time immemorial. The Nez Perce Tribe inhabited these lands for a millennium, and their cultural fabric is richly populated with fish, bighorn sheep, deer, bear and elk as well as botanicals for edible foods, medicines and for spiritual beliefs.

I truly hope that the US Forest Service – an organization that I was so proud to wear a “green suit” in “green fleets” or Nomex fire gear on firelines carrying a Pulaski under symbol of “Smokey Bear” – will remember its ethical responsibilities to represent the best interest of the American Public. Hopefully, the USFS managers will review scientific literature, take a “drive up in the woods” and just see the South Fork Salmon River. I consider this river to be one of the most beautiful in the nation and is too priceless to risk degradation with cyanide open pit heap leach mining.