

## **Comment on Midas Stibnite Project: Ruth Lewinski**

- **Introduction and Personal Background**

Thank you for your time and consideration for Valley County and the opportunity to make a Public Comment about the Stibnite Gold Project.

I was raised in McCall and have referred to it as home for 26 years. I grew up and continue to use the Warm Lake Road and to access the Yellow-Pine Area for year-round recreational access - fishing, hunting, biking and skiing. I received a BS in Chemistry from the College of Idaho, where I focused my undergraduate research on environmental lead contamination. Currently, I am wrapping up an MSc in Environmental Science and study medicine at the University of Washington. Over the last year, I have worked with a research group that collaborates with the World Health Organization to oversee health impacts of large-scale mining projects in Sub-Saharan Africa and have reviewed over 300 EIS Reports in regard to health impacts of industrial mining. Based on my educational experience, I do not believe that the Stibnite DEIS has adequately factored in the potential health impacts of proposed mining infrastructure and presents undue risk hazards for Midas Mine employees, Federal Employees, and the general public. I plan to practice medicine in and surrounding Valley County; the Stibnite Project will have direct public health effects on my potential patient population, as well as my personal health as I plan to continue recreating in the area and surrounding drainage basins.

My comment is formatted beginning with a general summary, with specific sections and queries outlaid below.

- **General Concerns For Worker and Public Safety**

- Overall, I think that Midas has an unreasonably weak risk analysis and inadequate mitigation plan in all alternatives for:
  - Soil Contamination, Construction through Reclamation
  - Road and Traffic Management
  - WasteWater Treatment
  - Year-round Operation
  - Safety and Emergency Planning
- Summary Tables 3.18\_1 and 4.18\_3 both include more “negative impact” categories than “positive impact” categories. Based on this data, my interpretation of the weighted analysis is an overall negative impact on “Public Health and Safety” both long-term and short-term. Appendix D (see below) does not adequately address these concerns with any specific detail.
  - **Questions:**
    - **If my interpretation of tables 3.18\_1 and 4.18\_3 is correct, is public health at risk of being compromised with the current project plan?**

## Specific Sections

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### Section 3

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- 3.18.13 Groundwater
  - *“concentrations of constituents in groundwater in excess of MCLs are assumed to present an adverse effect for drinking water users. Midas Gold currently has a drinking water supply well associated with its exploration camp. The well and associated drinking water treatment system use filtration to remove contaminants of concern to appropriate regulatory levels. Any future use of groundwater in the SGP would likely need to incorporate appropriate filtration systems to remove contaminants of concern due to the naturally elevated levels of arsenic and antimony present.”*
    - **Specific filtration systems are not described in detail; does this put workers at risk for water consumption, especially prior to filtration installation?**
    - **Recreational use is not discussed in this section; will adequate hazard posting for public information be placed, as most filters do not adequately remove contaminants?**
- 3.18.14 Surface Water
  - *The ATSDR Public Health Assessment concluded that contaminants in surface water would be unlikely to result in adverse health effects for recreational users in the existing mine site (ATSDR 2003). In addition, the ATSDR Public Health Assessment concluded that for recreational fishers and even for local fishers from American Indian tribes, who have higher fish consumption rates, consumption of fish harvested from surface waters in the mine site is unlikely to result in any adverse health effects (ATSDR 2003).*
    - **This references a study conducted in 2003; conditions may have changed in 17 years and need to be updated.**
    - **This study refers to a very large range of contaminant samples, why is a standard error calculation not included?**
    - **Why is the frequency and time-duration of fish consumption not disclosed in this section?**
    - **The study referenced discusses analysis of reclamation projects, not mining disturbance - these are very different actions and need to be disclosed in appropriate context .**
    - **How will the public be informed of a chemical spill that would potentially contaminate potable water sources?**
- 3.18.3.1.5 Existing Terrain and Features
  - *“As described in the Public Health and Safety Baseline Study (HDR 2017b), the rugged, mountainous terrain in the analysis area includes*

*many potential hazards to public health and safety that could result in severe injuries or fatalities to users. Common hazards related to terrain include extremely steep slopes, rock cliffs, uneven terrain, and fallen trees. Avalanches, rock falls and debris flows also present a potential hazard for travelers, recreationists, and Forest Service and Midas Gold employees. They can cause severe injury or death and can block access to homes, cabins, and recreation sites. As described in the Recreation Baseline Study (HDR 2017c), the analysis area is a popular destination for winter recreation activities, including snowmobiling, snowshoeing, and cross-country skiing. Recreationists participating in these activities are at risk for causing or encountering avalanches in the analysis area. Also described in the Public Health and Safety Baseline Study (HDR 2017b), the entire analysis area presents potential flash flood and debris-flow hazards that also can cause severe injury or death, and can block access to homes, cabins, and recreation sites. In addition, areas that were not traditionally flood-prone are at risk due to changes to the landscape caused by wildfires. Similar to flash-flooding and debris flows, portions of the analysis area are susceptible to landslides and avalanches due to factors such as geology, landscape, climate, and soil, as was experienced in 2014, 2017 and 2019 along the South Fork of the Salmon River Road (National Forest System Road 474/50674) and the Stibnite portion of the McCall-Stibnite Road (County Road [CR] 50-412).*

- *Wildfires are another potential hazard in the analysis area that can cause severe injury or death for travelers, recreationists, and Forest Service and Midas Gold employees, as well as damage to homes and property. They can spread unpredictably and rapidly and are highly dependent on changing weather patterns. Past wildfires have presented health and safety risks to the public. Much of the analysis area was burned by major wildfires in 2000, 2006, and 2007, as detailed in the Vegetation Baseline Study (HDR 2017d), as well as more recently in 2019. The danger of wildfires in the analysis area remains. The dense stands of snags and dead material left behind on the forest floor by those fires could be sources of fuel for future fires.”*
  - **This text summarizes a very high health risk in association to weather, terrain, and environmental circumstances. As disclosed, major fires and avalanches have affected the transport route in the last 10 years.**
  - **Does year-round operation put workers at an unreasonable risk?**



*Midas Gold maintains Stibnite Road (CR 50-412) for access from the village of Yellow Pine to the mine site. All other routes to the mine site are not maintained (plowed or sanded) when snow-covered roads become impassable to vehicles.”*

- **Traffic Study and Appendix fails to analyze traffic ‘trends’ rather than averages and did not disclose traffic increase since 2016 - does this information contribute to a poor accident estimation?**
- **Why is traffic flow volume estimated factored in, but not the weight of vehicle traffic?**
- **Where is the detailed County maintenance plan that discloses road responsibility to ensure standardized quality assurance?**
- **Why doesn’t transport risk analysis include Highway 55 or 95 corridors?**
- 3.18.3.3.3 POWER AND UTILITIES
  - **Throughout this section, there is failure to mention the risk of glare from introduced infrastructure, which would contribute to an increased fire hazard.**
- 3.18.3.3.4 SANITARY AND SOLID WASTE
  - **Throughout this section, there is failure to project a timeline or plan for increased waste capacity through all project phases. What does this operation look like through the Construction Phase?**
  - **Is this transport included in the traffic analysis?**
- 3.18.3.3.5 EMERGENCY MEDICAL SERVICES AND FIRE PROTECTION
  - *In the event of a disaster or emergency, the local government’s primary responsibility is to respond to the incident to preserve life and property. As described in the Public Health and Safety Baseline Report (HDR 2017b), due to the remote nature of the proposed SGP, most of the analysis area is located more than 30 miles from the nearest local emergency services. The mine site is 68 miles from Cascade and 50 miles from McCall, the two closest communities with hospitals. The nearest hospital with specialized care facilities is in Boise 146 miles away. The emergency transportation service stations for Life Flights are in Boise, Idaho and Ontario, Oregon and service up to a 175-mile radius area.*
- - *Recently, a new helipad was added in Yellow Pine for emergency transport via Life Flight (Yellow Pines Times 2019). No urgent care or medical facilities are located close to the mine site or Yellow Pine; however, there is a Cascade Fire/EMS Paramedic Ambulance Substation in Yellow Pine, which allows the community to administer First Aid and Advanced Life Support (Yellow Pines Times 2018). In addition to the Village of Yellow Pine Fire District, there are three*

*major fire-fighting agencies and districts in Valley County that serve the communities of Cascade, Donnelly, and McCall, as well as the rural areas surrounding these towns. These fire districts provide 24-hour fire protection for businesses and residents and are mostly staffed by volunteers. In the event of a catastrophic emergency, all the fire-fighting districts, the American Red Cross Valley County Chapter, and Valley County personnel would join forces to compose the Valley County Fire Working Group Collaborative.*

- *For larger scale emergencies, local officials may implement emergency statutes and ordinances and declare a local state of emergency to mobilize and commit their resources. If local governments do not have sufficient resources to handle an emergency, they can request the support of the Idaho Emergency Operations Center, which developed the Idaho Emergency Operations Plan, a statewide comprehensive plan outlining disaster emergency response (Idaho Emergency Operations Center 2017).*
  - **This section does not discuss the timeframe of response, communication ability throughout route, capacity of local response, plan alterations for seasonal conditions, nor management strategy for a mass casualty event.**
- 3.18.3.4.3 COMMUNITY HEALTH
  - As summarized in Table 3.18-2, Valley County ranks sixth best in the state for health outcomes, based on an equal weighting of length and quality of life. Valley County ranks fourth best in the state for overall health factors, based on weighted scores for health behaviors, clinical care, social and economic factors, and the physical environment.
    - **The DEIS fails to project mining impacts on analyzed categories.**
- 3.19 Recreation
  - **Why are more recent transport and economic estimates not included in these calculations? Shouldn't future projection of growth be based on changes in historic rates?**
  - **Does transportation analysis accurately factor in increased recreational traffic trends?**
- 3.21 Social and Economic Conditions
  - **3.21.3.4 Public Services** Valley and Adams counties, along with their municipalities, provide police, fire, utilities, schools, and libraries for residents and workers. Because new residents relocating to the region for work at the SGP could result in population growth that would generate greater demand for public services in the local area, the following sections focus on the communities within the analysis area where any SGP-related population growth would likely occur. For a discussion of hospitals and medical facilities please see Section

3.18.3.3.5, Public Health and Safety, Emergency Medical Services and Fire Protection.

- **This section and the referenced section fail to disclose baseline infrastructure capacity of emergency services and healthcare centers.**

**Table 3.21-7 Fire Protection for Communities in the Analysis Area**

<b>Station Details</b>	<b>Cascade Rural Fire Protection District</b>	<b>Donnelly Rural Fire Department</b>	<b>McCall Fire Protection District</b>	<b>Yellow Pine Fire District</b>	<b>Meadows Valley Fire District</b>	<b>Council Valley Fire Department</b>
Number of Stations	4	1	1	1	1	1
Full-time paid fire fighters	3	2	4	0	0	0
Part-time paid fire fighters	0	0	25	1	0	0
Volunteer fire fighters	36	26	0	10	15	16
Non-firefighting paid staff	0	0	3	0	0	4
Non-firefighting volunteer staff	0	0	12	0	4	0

Table Source: Midas Gold 2017

- 3.21.3.4.2 FIRE PROTECTION
  - - **Response time to potential incidents is not disclosed. Mileage does not reflect transport time. Why is there not a change in response plan based on seasonal circumstance? Will Midas be equipped to respond to an infrastructural fire during the Construction Phase?**
    - **The current county infrastructure is not adequate to take on additional responsibilities - how will Midas transition to take on responsibilities for incident response in its project area?**
- 3.2-.22
  - **Why is there a lack of mitigation plan along transport routes, included fuel storage facilities**
  - **Is there a seasonal change in vehicles evaluation for avalanche stability or winter conditions?**
  - **Is Worker/Public Safety and Transport of Hazardous Materials in align with the Emergency Planning and Right to Know Act?**
  - **Are there no winter spill alterations mentioned in the proposed (but not disclosed) Emergency Spill Plan?**
- 3.4.34 Avalanche Hazard Assessment
  - **The data disclosed in this study appears to be from 2013, prior to recent slides**

- Is the risk evaluation to be updated to be supported by scientifically recommended processes?
    - Why is the avalanche assessment for Yellowpine and West-end Pits not included?
    - The Southwest Area - Hangar FLats Pit and Soda has a historic landslide area at the Waste Rock Dump Site; has this been thoroughly evaluated for winter conditions?
    - Does the lack of avalanche analysis for the entirety of the transportation route put workers and the general public at unreasonable risk?
    - There appears to be no geological analysis of the Yellowpine Route; solely a desktop study is not sufficient (3.2.3.7.22), especially since aspects geographic features have changed since 2013
- 3.2.3.8.2 (3.2\_85)
  - 3.8.3.2.4 - may reflect a collection of poor baseline data as it was taken over 31 days - in December. Does this compromise the mineral content background?

## Section 4

- 4.2.2.1.1.3 Seismic Hazards
  - This section does not describe potential risk management in detail
    - Background 3.2.2.4 - 6 referenced sections are not current and the standards for a large scale preparation are unclear
      - 3.2.3.6 Seismic Study is conducted in 2013 needs updated data
- 4.3 Air Quality
  - This analysis is for isolated compounds - are there any federal regulations to analyze mixtures?
  - 4\_21 - The filter type and maintenance of Hg filters is not specified
  - 4\_22 - Dust Control Plan - Water source and 'chemical control' measures are not specified for operational use
- 4.3.2.2.2 (4.3\_45) Water Treatment
  - WTP lacks clear operational plan and is only mentioned in Alternative 2
    - The discussion of this topic appears to be inconsistent. Please explain the discrepancies of details referred to in 4.4.2.2.2.4 (Alternative 2) and 2.4.11 ( 2\_110 and 2\_86)
  - What are the non-specified 'inorganic chemicals' claimed for treatment purposes?
- 4.4 Climate Change
  - Climate change circumstances claimed to exacerbate nearly all public health issues - Why is this not integrated into projection models of operation?
- 4.5 Soils and Reclamation Materials
  - Throughout the document, there are inconsistent statements regarding soil contaminants and planned usage - what plans are currently accurate?





## Appendix M - Public Health and Safety

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The calculation assumption based on campground visits is not an accurate or reliable variable. This excludes repeat camping visits up to the maximums stay within the year. It also excludes daily visits. Based on my personal recreation activity, I have spent over 90 days in the last year within a 30 mile radius of the project area. The average adult weight is projected to be 80kg, with no age categories aside from children. Therefore, as a 26-year-old female 48kg, I would have the same risk projection as an 86 year-old 110kg male. There is also 0 analysis done for soil exposure during pregnancy. Overall, the data conclusions lack a clear interpretation of results.

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## Section D - Mitigation

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- *Bulleted Questions in regards to summary table and background references*
  - FS 1, 2 Why is there a lack of a clear reporting system for artifacts of social health/indigenous values?
  - FS-9 Why isn't there a detailed plan to minimize road waste?
  - FS-10 - Why doesn't the public have access to comment on the spill plan -it is not available in DEIS?
  - FS-12 - Is garbage transport included in the daily traffic projections?
  - FS-18 - Does chemical analysis of waste need to be done prior to project approval?
  - FS-19 - Does the number of inspection sites need to be increased?
  - FS - 19- 26 - lack any specific details
  - FS-21 - Does the emergency fire plan need to be approved prior to any project phase?
  - FS-23 - Why aren't specific kit locations disclosed?
  - FS- 24 - Is communication a safety issue? The radio frequency is not disclosed and spark mitigation is not discussed.
  - FS - 26 - Do health and safety plans need to be approved by the public, local, and state agency's prior to project approval?
  - FS - 46 - Do topsoils used for the renovation phase need to be adequately checked for contamination levels?
  - FS-47 - Is construction limited to summer - July-September to limit runoff issues?
  - FS - 48 - Why is specific storm drain design not discussed? Could gray water be contaminated?
  - FS-51 - Does backfilling with topsoil have high contamination levels? Does this meet worker safety requirements?
  - FS-52 - What is the location of origin and delivery plan for materials?
  - FS-75 - The dust mitigation mentions using water - where will this water be sourced and what is its chemical content?
  - FS-82 - Why is a specific toxicant storage plan not available for comment on the DEIS? Is this safe for year-round storage in avalanche terrain?

- FS - 83 - Why is dust abatement poorly described? Do mixing proportions and the site of water obtained need to be disclosed? Is this a potential to contaminate recreational areas?
- FS-86 - Is there appropriate seasonal roadway safety management?
- FS-87 - Aside from chains, there appear to be no plans to change winter traffic patterns - is this a risk for workers and the general public?
- FS -88 - What are the standards for first aid training for workers?
- FS-89 - With 65 trucks projected per day from the site, is a spill kit for just 1 truck adequate for a potential accident risk? What are the average accident response times for spills throughout the route, including highway 55 and 95?
- FS-94 - What is the planned response for chemical spills for all points along the route?
- FS - 95 -Is radio service available along the entire transport route? What is the Emergency plan through the construction phase of any alternative?
- FS-98 - Does employee safety training happen prior to employee duties - including spill and emergency response?
- FS-100 - What is the specific timing reference to 'Periodically checked'?
- FS - 102 - How is worker training mandated?
- FS111 - Will volumes of gray water after a large storm event be processed in accordance with the Clean Water Act?
- The following are in reference to the Page number, disclosed D\_X or Section.
  - D-20 -
    - Why are pit dewatering volumes not disclosed?
    - Why isn't the crushed rock content/site source and transport included?
  - D-23 -
    - Why does the road maintenance plan lack details?
    - Is the mitigation plan to backfill with existing soil?
    - Transport training for hazardous materials not adequately described. Since the proposed road is much rougher than 'national average', should the Forest Service require stricter standards for operational clearance for drivers?
    - Why isn't the storage location of hazardous materials, including fuels and explosives near waterways disclosed?
    - Why isn't there a fire maintenance plan at storage facilities described?
    - Is there a spark management plan for large vehicles?
  - D-24 -
    - Is there a glare reduction plan for electrical facilities?
    - Is there an enforcement plan for regulating 'alcohol, firearms, or illegal drugs on site'?
    - What is the winter road maintenance plan?
  - D- 25 -
    - Why aren't speed limits specified?
    - Why is there a lack of runaway truck ramps?
    - What are ' acceptable roadway safety standards' ?

- D-27-
    - Why isn't compost biosafety management included?
    - Could great water from storm runoff be contaminated?
    - What is the regime for monitoring the 'diffuse groundwater discharge at DSRF face'?
  - D.1.4.2 -
    - What is the chemical profile of 'salvageable topsoil'?
    - What are the safety standards for fuel and explosive storage?
    - Lacks details of sanitary waste facility
    - What is the plan for an emergency event? The 'Tank' is included in water calculations as a 360,000 gallon volume, but a hydrant or truck distribution is not disclosed. There appears to be a lack of a clear plan for emergency trucks, pumps, fuel/explosive storage, and transport fire response plan. It has been proposed during the operational phase to go through 5,036 gallons per minute for industrial processing - how does this affect the lifespan and quality of available potable water for workers?
    - Water treatment plans are unclear and only included in alternative 2. Do chemical profiles of effluent and effluent need to be projected?
    - Emergency communication plans are not discussed.
  - D. 6.2, 6\_14
    - It has been disclosed that investigations of streams and wetlands are still pending along the S. Fork of the Salmon River and N .Fork of the Payette sub-basins- Does this present a risk for recreational areas in these corridors?
  - D. 9.3.1 - Soil Salvage
    - Is the depth of analyzed soil samples adequate? Data disclosed only tested samples at 18 inches, but the mitigation plan reflected using 36 inches. Is there a higher risk of contamination at a deeper depth?
  - D. 93.4
    - Why does the composing plan lack biosafety analysis?
    - Does it need a year-round maintenance plan, heating and decomposition projection and PH and microbe monitoring plan?
  - D. 12.3
    - Does having a self-monitoring program pre-dispose Midas to biased data? Could this have long-term impacts on public health?
  - D. 15
    - Why is section 15 ambiguous? - it appears to lack commitment for longterm retribution or clean-up guarantee.
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## Missing Information and Recommendations

In reading the DEIS, I felt that important information was not appropriately disclosed. These aspects could have a large impact on public health and I feel that they need to be clearly addressed:

- Specific and detailed year-round Emergency Response Plans and safety-maintenance protocol for:
    - Large infrastructure and transport fire incidents
    - Large-scale traffic accidents - with trucks and the general public
    - A mass casualty event
    - A large-scale chemical spill
    - Managing snow hazards and avalanche conditions
  - A detailed Health Infrastructure description
    - What is the current and proposed Hospital and emergency response capacity and the timeline for future developments?
  - Infectious Disease protocol
    - What considerations are proposed to manage potential infectious diseases (Covid, meningitis, etc.)?
    - What is required for health screening for 'dormitory living'?
    - What immunizations are required?
  - Water Treatment Plant Details
    - What is the specific plan for industrial, residential, and environmental effluent?
  - Specific disclosure of chemical compounds proposed to be used
    - All biocides (herbicides, insecticides, etc)
    - Dust mitigation chemicals
    - Any compost additives
    - 'Inorganic Chemical' , planned for WasteWater Treatment
  - A summary of the Social Determinants of Health
    - What is the potential impact on Native Health?
    - What are the projected effects on 'substance use, domestic violence or STD' values in the residential area?
    - How will a work zone 'free of alcohol and illicit drugs' be regulated?
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## ***The Importance of a Health Impact Study***

While the US EIS includes the analysis of some health aspects, a thorough Health Impact Analysis (HIA) is globally recommended for any project that the International Finance Corporation/ World Bank Group would consider a 'High Impact Project'. I believe that the Midas Gold Stibnite Project would qualify as such a project. Performing a quality HIA supports having long-term benefits for the mining operation and the surrounding communities.

If an HIA were implemented, I believe it would improve the Stibnite Gold Project. Please refer to the following article for insight:

### **MDPI and ACS Style**

Winkler, M.S.; Furu, P.; Viliiani, F.; Cave, B.; Divall, M.; Ramesh, G.; Harris-Roxas, B.; Knoblauch, A.M. Current Global Health Impact Assessment Practice. *Int. J. Environ. Res. Public Health* 2020, 17, 2988. <https://www.mdpi.com/1660-4601/17/9/2988#cite>

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### **Summary**

In summary, key aspects of the Stibnite project will need to be adjusted in order to benefit the long-term and short-term health and well-being of the surrounding communities.

Sincerely,

Ruth Lewinski  
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McCall, Idaho, USA