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First name: Christopher
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Organization:
Title:
Comments: Hello,

I'm writing today voicing opposition of Solitario Zinc's Golden Crest exploratory drilling proposal, and asking the Forest Service to consider these and the concerns voiced by others before going forward with any action, as I believe this project will have significant affect on the quality of the environment where this corporation wishes to do their prospecting. In that regard, I'm asking the Forest Service to complete a more thorough Environmental Impact Statement for this project, as opposed to the limited Environmental Assessment. Throughout this text I have notated my references (numerically) and have included supporting links at the bottom of the document.

First and foremost, a big concern to me is Water. From the information provided in this proposal, they're going to need a lot of Black Hills water to simply look for gold.

As anyone reading this is aware, access to clean, uncontaminated drinking water is a resource we can't do without, and something we can't just assume will always be continual and abounding. The USFS report on Climate Change Vulnerability in the Black Hills (1) states that the mean daily maximum temperature in the Limestone Plateau and Core Highlands is projected to rise between 4.3 degrees F and 5.3 degrees F by mid-century, and is only expected to increase after that. In addition, The Black Hills National Forest Plan Revision Assessment (2) states "there is a high probability that extreme events, especially drought and wildfire, will become more common in future decades." It goes on to say, "climate change may affect availability of resources, such as water for processing minerals..."
So it seems to me with those issues looming on the not-so-distant horizon, things like irrigation, livestock, and population growth in the state, not to mention the well-being of our entire ecosystem, make water something of unquestionably vital importance to our future.

Solitario estimates "the project would entail approximately 27 months of active drilling, not including inactive periods, over a total of five calendar years"-though page 13 of the EA mentions "drilling could last longer than 27 months…"-and that "drilling operations would take place during one or two 12-hour shifts (up to 24 hours a day) five to seven days a week, May 15-Dec 15."

They estimate "water usage would range from 5,000 to 10,000 gallons a day," though page 40 of the EA says that it "…could reach up to 24,000 gallons of water a day." A little bit of math (3) will tell us that 27 months of active drilling will use between 2,932,875 gallons to 8,212,050 gallons of water over the scope of the project, and that's not even the maximum they admit they might need. And this is only going to be used to simply look for gold. Where are they hoping to source 2.9 million-8.2 million gallons of water during this time?

It should be noted that Solitario aims to recirculate "whenever possible" "all of the water that is not lost in the hole" using 5' x 5' x maximum 5' deep sumps, which hold up to 937.5 gallons. I'd like more specific information on this to be shared, so as to better understand how much water they expect to re-use in their prospecting. And further, I'd like to know what they plan to do to treat the wastewater once they've finished with it.

Page 12 of the EA states that "any water used for drilling would be sourced from an approved municipal or privately owned water supply in the Lead-Deadwood area. No water would be pumped from surface water sources on National Forest System lands." Page 50 says "…the drilling water, made up of local surface water from Lead/Deadwood…" So where do they plan to source this much water? I'm asking that Solitario and the Forest Service share this information with the public.

A couple of my concerns find themselves on page 50 of the EA: "It is very likely that a high-yield aquifer would be encountered during drilling," and on page 51, "The introduction of oxygenated water into mineralized zones could lead to mobilization of acidity and/or metals including arsenic, iron, and manganese…" It is mentioned that this possibility exists when drilling residential water wells, but I feel it important to distinguish between not only the difference in scope and duration of drilling a residential well (typically 1-3 days) and exploratory drilling ("…typically a few weeks" per drill hole, page 51 of the EA) but also the matter of importance and necessity between drilling for drinking water, and for gold prospecting.

Page of the EA states that 16 domestic wells are located within one mile of proposed drill sites. What were these landowners' responses to the proposal?

Also of concern, and just as important, is the matter of Respect. Going beyond the USDA regulation (4) to do so, it's an action of good faith for the U.S. government to fully and satisfactorily consult with the Indigenous tribes who call these lands home before engaging in activities such as this. I see on pages 86-87 of the EA that "the USFS solicited scoping comments by mailing requests" to 16 Tribal entities, and "solicited government-to-government consultation interest in a mailing" to the same 16 Tribes-I feel the public should know how they responded and if their comments and concerns in any way have bearing on your decision.

The Black Hills are not a commercial resource or storage of commodities to extract. It's an active, breathing habitat rich with living beings, humans just one of them, that require all the other parts to continue to function. Allowing out-of-state corporations eager to come here and take something non-renewable in hopes of making themselves and their shareholders a profit then leave behind an altered landscape and ecosystem is wrong. A prospecting corporation like Solitario Zinc doesn't care about the long-term effects of their actions, or the health and future of the Black Hills. I'm asking you to listen to the people who do care about these things, and act accordingly.

Thank you,

Christopher Roth

REFERENCES

1 Page 19, 492-493, Climate Change Vulnerability in the Black Hills National Forest
https://www.fs.usda.gov/sites/default/files/2022-04/%27Climate%20change%20vulnerability%20in%20the%20Black%20Hills%20National%20Forest%20-%20v1%27%20of%20%27AR-%20Common%20References%20%27.pdf

2 Page 9, Black Hills National Forest Forest Plan Revision Assessment: Renewable and Non-Renewable Energy and Mineral Resources
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1035063.pdf

3 (5 days/week x 5,000 gal x 4.345 weeks/month x 27 months = 2,932,875gal. 7 days/week x 10,000 gal x 4.345 weeks/month x 27 months = 8,212,050 gal.)

4 USDA Departmental Regulation 1350-002 Tribal Consultation, Coordination and Collaboration, noted page 5 of EA
https://www.fns.usda.gov/snap/memorandum-on-tribal-consultation-requirements#:~:text=USDA%20Departmental%20Regulation%20(DR)%201350,program%20activities%20which

%20have%20direct