

August 21, 2022

Black Hills National Forest Mystic Ranger District
8221 Mount Rushmore Rd.
Rapid City, SD 57702

Re: F3 Jenny Gulch Exploration Drilling Project

To whom it may concern:

The Jenny Gulch Gold Exploration Drilling Project should not be approved because the Environmental Assessment (EA) does not adequately address the primary environmental risk of this project, which is the potential impact to the drinking water supply for the City of Rapid City. Of the 50 pages in the EA, a mere 74 words was devoted to the study of impacts to Rapid City's water supply.

A brief review of the EA revealed the following deficiencies from my perspective:

1. Lack of analysis of potential impacts to the Rapid City water supply

Drilling will occur less than 1,000 feet from the primary drinking water supply reservoir for Rapid City. The proposed action will allow drill depths up to 6,000 feet at an angle of up to 45 degrees. This means that drilling could occur directly underneath Pactola reservoir (requiring only a 15-degree angle at 6,000 feet).

The EA mentions that the project area is located within the Pactola Reservoir-Rapid Creek watershed, which is class 2, "functioning at risk" (Section 3.7.1.1). But then the EA fails to dedicate even a single section to the potential risks to the Rapid City water supply.

Rapid City is a community of 76,000 people with an annual GDP of \$6.8 billion. The risk is simply too great to neglect a detailed study and analysis of the potential impacts to the City's primary drinking water supply.

2. Exact contents of drilling fluids not provided

The EA states: "the drilling process proposed by F3 would use water mixed with industry standard drilling additives such as bentonite clays and muds or other natural and/or biodegradable additives...". Due to the extreme close proximity to the Rapid City water supply, the exact makeup of drilling fluids should be made public and also compared to EPA drinking water contaminant lists before being approved. At minimum, the following EPA contaminant lists should be consulted:

- EPA National Primary Drinking Water Regulations
- EPA National Secondary Drinking Water Regulations
- EPA drinking water contaminants of emerging concern

3. Drill cuttings should be tested before onsite disposal

The EA allows for drill cuttings to be disposed of onsite (Section 2.2.1). However, drill cuttings could contain contaminants that could potentially be washed into Pactola Reservoir. Due to the extreme close proximity to the Rapid City water supply, drill cuttings should be tested for heavy metals and other contaminants commonly found in Black Hills mining (such as Selenium, etc.) before being allowed to be disposed of onsite.

4. Bonding sufficient to mitigate impacts to local and Rapid City water supplies

The EA mentions that there is potential to “indirectly affect private wells and quality of the water supply” (Table 3-1). The EA failed to evaluate the potential risks to the Rapid City water supply. F3 should be required to carry a bond sufficient to mitigate potential impacts to local and Rapid City water supplies. A study and evaluation of the potential risks to the Rapid City water supply will be required to adequately assess risks in order to set the bond amount.

5. Drill fluids should be tested before being reused

The EA states: “The introduction of oxygenated water into mineralized zones could lead to mobilization of acidity and/or metals, including arsenic, iron, and manganese...”. The proposed action allows drilling fluid to be reused. This means that drilling fluids containing “acidity and/or metals, including arsenic, iron, and manganese...” could be circulated in very close proximity and potentially underneath Pactola Reservoir.

Due to the extreme close proximity to the Rapid City water supply, drilling fluids should be tested to ensure they do not contain harmful levels of these contaminants before being reused.

It appears the EA was written by BARR, a well-respected company in the mining and geological sector. However, the extreme close proximity of this project to the Rapid City water supply calls for an independent third-party evaluation by a company specializing in municipal drinking water supply.

If I can find 5 glaring deficiencies during a Saturday afternoon reading of the EA, imagine how many deficiencies could be found by a qualified company paid for the task. The risk associated with this project is simply too great to give the green light without sufficient study and analysis.

Sincerely,

A handwritten signature in blue ink that reads "David M. Holland". The signature is written in a cursive, flowing style.

David Holland, PE
1105 Saint Cloud St
Rapid City, SD 57701