EARTHWORKS

June 12, 2023

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Re: Proposed Pactola Reservoir-Rapid Creek Watershed Mineral Withdrawal

Thank you for the opportunity to comment on the proposed mineral withdrawal for the Pactola Reservoir – Rapid Creek Watershed in South Dakota. These comments are submitted on behalf of Earthworks, a national non-profit organization dedicated to protecting communities and the environment against the adverse impacts of mineral and energy development, while seeking sustainable solutions.

We commend the agencies for initiating this process. We support the proposed 20-year mineral withdrawal on 20,574 acres of National Forest lands to protect the cultural and natural resources of the Pactola Reservoir—Rapid Creek Watershed, including municipal water for Rapid City and Ellsworth Air Force Base, from the adverse impacts of minerals exploration and development. We also encourage the agency to consider opportunities for expanding the mineral withdrawal area.

The proposed mineral withdrawal is necessary to protect the exceptional cultural resources, municipal drinking watershed and recreational opportunities afforded by these public lands.

Please see our more detailed comments below.

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I. The proposed mineral withdrawal is essential to protecting the cultural, water and recreational resources of the area because the 1872 Mining Law and associated case law prioritizes mining over all other land uses.

According to the Federal Register Notice, the purpose for the proposed mineral withdrawal requested by the USFS is to protect the cultural and natural resources of the Pactola Reservoir—Rapid Creek Watershed, including municipal water for Rapid City and Ellsworth Air Force Base, from the adverse impacts of minerals exploration and development. It further states that, the use of a right-of-way, interagency agreement, or cooperative agreement would not provide adequate protection of cultural and natural resources. We agree that a mineral withdrawal is necessary to adequately protect these resources.

The General Mining Law of 1872, more commonly known as the 1872 Mining Law, is the fundamental statute governing hardrock mineral development on federal public lands.[1] Its central tenet, unchanged in 127 years, is that: "all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase..." This 150-year old law prioritizes mining over all other land uses.

As a result of the 1872 Mining Law, federal agencies have asserted that they have no authority to prohibit an otherwise reasonable plan of operations for mining (i.e., one that can be characterized as the logical next step in the orderly development of a mine). As a result, the 1872 Mining Law prevents federal agencies from prioritizing the protection of other resource values, such as cultural, water and recreational values. For example, in a recent article in the Rapid City Journal, Hell Canyon District Ranger describes that he is bound by the 1872 Mining Act, in response to opposition to proposed exploration activities by F3 Gold.[2] Similarly, a preliminary decision memo regarding the proposal to conduct exploratory drilling in southwest Oregon. Gold Beach Ranger Tina Lanier stated: "Under this law and related case law the United States Department of Agriculture (USDA) Forest Service has no authority to prohibit an otherwise reasonable plan of operations for such mining.[3]

Thus, a mineral withdrawal is necessary to prioritize the protection of cultural, recreational, water and conservation values on public lands that could or would be harmed by significant land disturbance activities associated with exploration or mineral development, such as the excavation of open pits, construction of roads, the formation of pit lakes, the permanent disposal of large

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[1] Act of May 10, 1872, 17 Stat. 91 (codified as amended at 30 U.S.C. §§ 22-47 (1994)). The Law, although originally covering most minerals, is now limited to what are commonly known as "locatable" minerals. The most important of these types of minerals are "hardrock" minerals such as gold, silver, copper, molybdenum, and uranium, among others. Non-uranium "fuel" minerals such as oil and gas and coal, were removed from operation of the Mining Law by the Mineral Leasing Act of 1920, 30 U.S.C. §§ 201-210 (1994) and are regulated under entirely separate statutory and regulatory regimes. In addition, the Surface Resources Act of 1947, as amended in 1955, removed "common varieties" of sand, stone, gravel, and clay from operation of the 1872 Law. *See* 30 U.S.C. §§ 601-615 (1994).

[2] Rapid City Journal, "Forest Service says Black Hills gold exploration project will continue, regardless of public outcry." April 25, 2023.

[3] Preliminary Decision Memo, RFG38, Test Drilling for Red Flat Nickel Corporation, Nov. 6, 2013.

volumes of mine waste, the loss of certain landscapes or land features, and other effects from resource extraction activities. The following pictures illustrate some of the mid to long-term land disturbance activities that are often associated with mineral development.

1. Tailings impoundments provide long-term storage of mine waste and become a permanent feature on the landscape. (Thompson Creek Mine, Idaho)

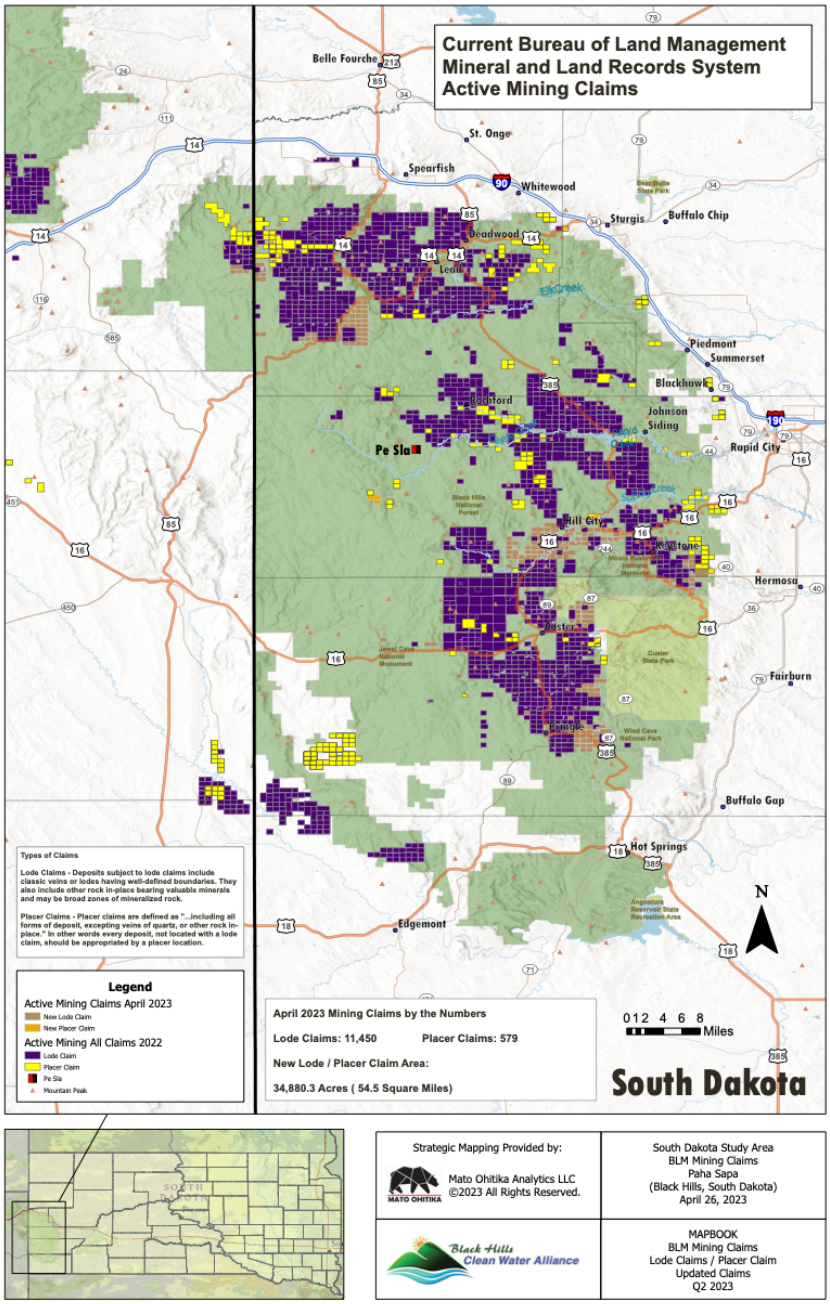
2. Open-pits. (Betze Post Mine, Nevada)

3. Leach pads

4. Exploration roads and drill pads

II. The region's resources are at significant risk from extensive mineral exploration and development.

The Black Hills National Forest is experiencing a dramatic increase in claim-staking. The Black Hills Clean Water Alliance released a map in April 2023, that documents recent claim-staking activity, which documents over 30,000 acres of new mining claims staked since December. This dramatic increase in mineral interests puts water, cultural and recreational resources at great risk.



III. Hardrock mineral exploration and development is incompatible with the protection of cultural, water and recreational resources.

Mining exploration and development, including modern gold mining operations, has the potential to result in significant adverse impacts to water quality, including metals leaching, sedimentation, spills of hazardous materials, development of acid mine drainage, and other adverse impacts.

The U.S. Environmental Protection Agency identifies hardrock mining as the leading source of toxic releases in the U.S., based on the Toxic Release Inventory. A 2006 comprehensive study of modern U.S. mines determined that despite predicted compliance of permit conditions, many operating metal mines have violated water quality criteria.[4] The study compared predicted water quality impacts to observed impacts found at a sample of 25 U.S. mines. In summary it found that:

- 100% of mines predicted compliance with water quality standards prior to operations (assuming pre-operations water quality was in compliance).
- 76% of mines exceeded water quality criteria as a result of mining.
- 64% of mines employed mitigation measures that failed to prevent water quality contamination.

A 2017 report looked at the track record of 27 major U.S. operating gold mining operations representing 93% of U.S. gold production.[5] It found that:

- 100% of the mines have experienced at least one pipeline spill or accidental release, such as spills of cyanide solution, mine tailings, diesel fuel and ore concentrate.
- 74% have failed to capture or control contaminated mine seepage, and water quality impacts were identified at 74% of mining operations.

The track record of the Wharf Mine, South Dakota's currently operating gold mining operation, follows a similar pattern, with multiple violations of surface and groundwater quality standards, including releases of hazardous materials that resulted in a fish kill.[6] According to a May 2023 document, "Currently, Wharf is in violation of the surface water standard for selenium at False Bottom Spring. In July 2021, DANR requested Wharf begin speciating selenium samples taken from False Bottom Springs in order to determine if the selenium concentrations were elevated above the surface water standard. Upon receipt and review of the data, DANR issued a warning letter to Wharf requiring development of a mitigation plan to correct the selenium exceedances in

[4] Kuipers, J., A. Maest, K. MacHardy, and G. Lawson. 2006. Comparison of Predicted and Actual Water Quality at Hardrock Mines: The Reliability of Predictions in Environmental Impact Statements. Available at: www.kuipersassoc.com.

[5] Gestring, Bonnie and John Hadder, "U.S. Gold Mine Spills and Failures Report: The Track Record of Environmental impacts Resulting from Pipeline Spills, Accidental Releases and Failure to Capture and Treat Mine Impacted Water, July 2017. https://earthworks.org/wp-content/uploads/2021/09/USGoldFailureReport2017.pdf

[6] South Dakota Department of Natural Resources Wharf Resources Violation History from 1984 – 2008. Available at: https://earthworks.org/assets/uploads/archive/files/pubs-others/Wharf_Mine_(goldcorps)_Violation_History.pdf

False Bottom Springs."[7]

The scientific literature also contains extensive documentation of adverse effects on fish and aquatic life from mining activities. The effects of roads for mineral exploration and development are well documented for their adverse effects. Trombulak & Frissell (2000) conducted a review of the scientific literature on the ecological effects of roads on aquatic life and found support for the general conclusion that they are associated with negative effects on biotic integrity in both terrestrial and aquatic ecosystems, including modification of animal behavior, alteration of the physical environment, alteration of the chemical environment, spared of exotics and increased use of areas by humans.[8] Overall, the presence of roads is highly correlated with changes in species composition, population sizes and hydrologic and geomorphic processes that shape aquatic and riparian systems.

Similarly, extensive case studies outlined by fisheries biologists in the scientific journal *Fisheries* describe the impacts to aquatic life from modern hardrock mines regulated under the 1872 Mining Law.[9]

A mineral withdrawal is necessary to ensure that water quality protections are prioritized, and the municipal drinking watershed is protected from the potential impacts of mining.

IV. Cultural Resources are at Risk from Mine Exploration and Development.

Proposed locatable mineral exploration and development would have the potential to directly and indirectly affect cultural resources through ground disturbing activities such as blasting, building, drilling, earth-moving/excavating, and road construction/improvement. Access to cultural resources and traditional land uses can be harmed by mining exploration and operations that prevent access to large land areas or specific locations.

Water quality impacts may also result in adverse impacts to cultural resources. For example, operation of the Zortman Landusky gold mine in Montana has caused permanent contamination of water on the southern part of the Ft. Belknap reservation, including water pollution that runs through the Tribe's Powwow grounds.

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[7] South Dakota, DANR, Summary Document, Wharf Resources (USA) Inc. Large Scale Mine Permit Application wharf Boston Expansion Project, May 2023. Available at: https://danr.sd.gov/Environment/MineralsMining/Exploration/docs/WharfBostonExpansionSummaryDoc.pdf

[8] Trombulak, Stephen C. and Christopher A. Frissell, "Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities," Conservation Biology, February 2000.

[9] Woody et al., Fisheries Magazine, "The Mining Law of 1872: Change is Overdue, January 2011, https://afspubs.onlinelibrary.wiley.com/doi/10.1577/1548-8446-35.7.321

Photo: *Polluted run-off from the Zortman Landusky Mine in Montana, which runs onto the Fort Belknap Reservation and through the Tribes' Powwow grounds.*

The Black Hills are a sacred landscape for the Lakota and many other tribal nations of the north central and western United States. This includes the proposed withdrawal area. As a place where indigenous people have traveled and lived for many generations, the Black Hills are also the location for various types of cultural resources -- from historical sites to sacred landscapes that are used regularly today. The proposed mineral withdrawal area is one small part of these landscapes and travel routes.

We encourage the agencies to consider a withdrawal that is more expansive and includes the rest of the Rapid Creek watershed or a broader area within the Black Hills. This is a topic that should be fleshed out in formal consultation with the impacted tribal nations.