EARTHWORKS

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Re: Environmental Assessment and FONSI for the proposed Pactola Reservoir-Rapid Creek Watershed Mineral Withdrawal

Thank you for the opportunity to comment on the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) determination for 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.

The proposed withdrawal should be established and a Public Lord Order issued to accomplish the Purpose and Need for the withdrawal, which is necessary to protect the exceptional cultural resources, municipal drinking watershed and recreational opportunities afforded by these public lands.

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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 known and potential adverse environmental impacts that may arise from exploration and development of federally owned minerals. 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. In a recent article in the Rapid City Journal, Hell Canyon District Ranger states 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 land disturbance activities associated with exploration or mineral development, such as the excavation of open pits, construction of roads, drill pads, and pipelines, the formation of pit lakes, the permanent disposal of mine waste (waste rock/tailings), the loss of certain landscapes or land

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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).

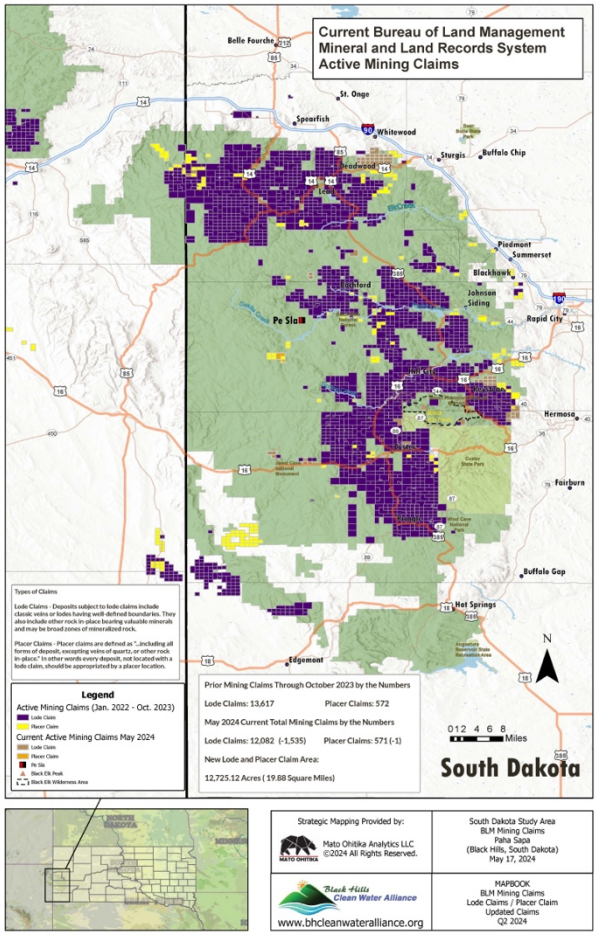
[2] Rapid City Journal, "Forest Service says Black Hills gold exploration project will continue, regardless of public outcry." April 25, 2023.

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

features, the consumption of water, the potential for spills of hazardous materials, and other adverse effects from mineral exploration and development.

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

Significant claim staking activities are occurring through the Black Hills Region. An October 2024 map, created by the Black Hills Clean Water Alliance using the BLM database, identifies 261,411 acres of active mining claims in the Black Hills (see adjacent map).



The EA's mineral potential report concludes that approximately 8,234 (40 percent) of the withdrawal application area have high occurrence potential for the locatable minerals gold and silver and the accessory minerals lead and antimony. Development potential for gold and silver was determined to be high for exploratory drilling activities and moderate for development (i.e., mine construction and production).

III. Mineral exploration and development is incompatible with prioritizing the protection water and recreational resources.

Mining exploration and development has the potential to result in significant adverse impacts to surface and ground water, including increased erosion and sedimentation, fugitive dust, spills of hazardous materials, acid mine drainage and/or metals leaching, changes in hydrology, loss of water quantity, among other adverse impacts.

The U.S. Environmental Protection Agency identified hardrock mining as the leading source of toxic releases in the U.S., based on the Toxic Release Inventory.[4] A comprehensive study of modern U.S. mines determined that despite predicted compliance of permit conditions, many operating metal mines have resulted in exceedances of water quality standards.[5] The study compared predicted water quality impacts to observed impacts found at a sample of 25 U.S.

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[4] U.S. Environmental Protection Agency, 2022 TRI National Analysis, March 2024, p. 41. https://www.epa.gov/system/files/documents/2024-03/complete_2022_tri_national_analysis.pdf

[5] Maest et al., "Predicted Versus Actual Water Quality at Hardrock Mine Sites: Effect of Inherent Geochemical and Hydrologic Characteristics," Available at: https://www.asrs.us/Publications/Conference-Proceedings/2006/1122-Maest.pdf

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.[6] 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.[7] 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 False Bottom Springs."[8]

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.[9] 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

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[6] 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

[7] 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

[8] 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

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

systems.[10] 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.[11]

Impacts on water resources quality may include increased dust from mining operations, potential spills and containment of ore concentrates, chemicals used in processing ore, fuels, and process water, in addition to wastewater from operations of facilities and camps, and may require treatment of mine water in perpetuity. Placer mining operations can result in extensive changes to channel alignment, bed and bank configuration, stream habitat, and floodplain geometry and function in addition to water quality, turbidity, and other effects.

The U.S. Forest Service also identified significant impacts associated with typical mining operations in a report it commissioned and considered in its NEPA review for withdrawing federal lands from mineral entry to protect natural and cultural resources in the Rainy River Watershed in Minnesota.[12] The case studies of these mines were "identified to provide instructive insight into real-life impacts..."[13] The search identified environmental impacts at all 20 case studies, including impacts on air quality, health, and safety, water quality, and Indigenous communities.[14] It reinforces the necessity of the proposed mineral withdrawal to protect vital cultural and natural resources within the proposed withdrawal area.

The EA (p. 17) states that the Pactola Reservoir – Rapid Creek watershed condition was assessed in 2011 and again in 2021. The overall watershed condition was classified as functioning at risk after both the 2011 and 2021 assessments. The EA (p. 18) found that "Substantial unauthorized use of closed roads currently occurs in the watershed, leading to undesirable levels of road density. Notably, the metric of water quality degraded from good to fair condition because Pactola Reservoir is now listed as impaired due to elevated water temperature and inputs of excess sediment from tributaries. The non- native invasive species metric was also downgraded from good to fair as a result of infestations along travel routes and within harvest areas.

A mineral withdrawal is necessary to ensure that water quality protections are prioritized, and the municipal drinking watershed is protected from the additional potential impacts of mining, which could contribute to road density, unauthorized use of closed roads, degraded water quality, inputs of sediment, and increased invasive species, among other impacts.

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, waste disposal (waste rock/tailings) and road and other mine

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[10] Id.
[11] 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
[12] U.S. Dep't of Agriculture, Rainy River Withdrawal: Case Studies Report (June 2022).
[13] Id., p. 4.
[14] Id.

infrastructure construction. Access to cultural resources and traditional land uses can be restricted or precluded by mining exploration and operations that prevent access to traditional lands/cultural resources. Mining exploration and development can also result in increased noise and visual disturbance from blasting, road construction, excavation and other activities, which can impair or disrupt cultural activities and experiences. For example, existing fasting sites in the Little Rocky Mountains have been rendered less desirable because of the ongoing visual and noise disturbances.[15]

Even claim-staking activities can result in adverse impacts. As stated in the BLM's Environmental Assessment of a proposed mineral withdrawal in the Little Rocky Mountains of Central Montana, "Additionally, mining claimants who file small miner waivers are required to perform at least $100 worth of labor annually in order to keep their mining claims. To the extent any mining claimants who locate mining claims in the proposed withdrawal area under the No Action Alternative choose to maintain their claims under a waiver, there would be associated surface disturbance that could impact special status species, cultural resources, water resources, or visual resources, even without construction or any facilities or features that would require specific authorization from BLM."[16]

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.

Photo: *Polluted run-off from the Zortman Landusky Mine in Montana runs onto the Fort Belknap Reservation and through the Tribes' Powwow grounds (see red stained rock in foreground).*

As recognized by the EA, the Black Hills, including the lands of the withdrawal application area, are considered to be a sacred landscape and traditional spiritual homeland by the Oceti Sakowin, Cheyenne, Arapaho, Arikara, Hidatsa, Mandan and Crow Tribes and contain numerous sites

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[15] U.S. Bureau of Land Management, Proposed Zortman Landusky Withdrawal, Final EA, April 2022, p. 19. https://eplanning.blm.gov/public_projects/2003949/200395465/20062668/250068850/Zortman%20Landusky%20Withdrawal%20EA%20Final%2006.27.22.pdf

[16] Ibid. p. 16.

sacred to the Tribes as well as areas they consider to be traditional cultural properties. The Rapid Creek Valley is also considered sacred and important for Tribal traditions.

Furthermore, a total of 48 previous Level III cultural resource inventories have occurred in the withdrawal application area. Of these inventory surveys, 16 are adequate to meet current South Dakota State Historic Preservation Office Level III survey standards. A total of 137 previously recorded cultural resources have been identified in the withdrawal application area.

Surface disturbance that would alter the landscape from a "natural" appearing landscape would have an effect on cultural uses of said landscape. This could result in the loss of use for cultural and religious purposes; traditional practitioners, while revering the area as a living entity, will be affected by an altered panoramic viewshed because of the surface disturbance associated with mining.

A mineral withdrawal is necessary to prioritize the protection of these cultural resources.