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First name: Chase Last name: Conrad Organization:

Title:

Comments: My name is Chase Conrad. I am the son of Ron and Danelle Conrad, owners of Stage Stop

Properties LLC, and a part-time resident of -PII-.

I am writing to express my rejection of the feasibility of any graphite exploration as proposed in Pete Lien and Sons' Rochford Mineral Exploration Project (PLSRMEP or RMEP). My rejection is borne from the short-term impacts any mineral drilling, the long-term ripple effects of these impacts on the environment and devastating impacts any resulting mining will have on the inhabitants of the Upper Creek Watershed, residents relying on Rapid Creek and Madison aquifers as municipal water sources and future generations' rights to clean water and a healthy Black Hills.

Regardless of these personal objections, as someone familiar with the area and its ecosystems, I am writing to make it clear that this project is not applicable for Categorical Exclusion due to the extraordinary circumstances involved in the impacted area and the misrepresentation of PLS applicability for CE under 36 CFR 220.6 (e)(8), detailed below.

Sufficient information has yet to be provided to impacted landowners, Tribes, or residents who rely on the Upper Rapid Creek Watershed for water. If the project is not withdrawn outright, I request both an extension for further consultation with the public and an Environmental Impact Statement so that the sensitive species, ecological, and hydrological resources of the area can be maintained for future generations.

Pete Lien and Sons Rochford Mineral Exploration Project's Lack of Feasibility

As mentioned, it is my belief that this project is not feasible in its entirety. According to the 1868 Treaty of Fort Laramie, the Black Hills remain "unceded Indian territory" of the then Great Sioux Reservation. Therefore, to this day, the claim that the Oceti Sakowin Peoples and their modern Tribal governments retain the right to consultation and consent in mineral exploration processes in the Black Hills must be taken seriously, including in the determination of this project. PLS claim rights were only obtained between 2017 and 2019

Regardless of the debate concerning unceded territorial rights, under modern Forest Service and Mining law the Rochford Mineral Exploration Project should not be seen as feasible.

According to the USDA Forest Service Roadless Area Conservation FEIS Mineral and Geology Specialist Report

(2000): "Exploration and development of locatable mineral resources are non-discretionary activities, meaning that the Forest Service cannot prohibit reasonably necessary activities required for the exploration, prospecting, or development of valuable mineral deposits. However, the Forest Service has the authority and the obligation to regulate locatable mineral operations in order to prevent or minimize damage to NFS surface resources."

While it is standard for the FS to approve projects relating to locatable minerals under the 1872 mining law, upon careful consideration, the Rochford Mineral Exploration Project does not describe activities that are "reasonably necessary". This is intuitive to residents of the North Fork Castle Creek basin and Black Hills more widely, and I so I hope it is recognized by the Forest Service.

The proposal allows for 18 1000-ft drill sites in search of Graphite in the Upper Rapid Creek Watershed. Eight of these sites are located on the Madison Limestone Plateau. At least six appear to be within 500 feet of North Fork Castle Creek or Castle, and several more are within several hundred feet of seasonal drainage.

While graphite has not been mined in the U.S. since the 1950s, the technologies available for its extraction continue to be only open-pit or underground. As a result, in addition to the impact on sensitive and endangered species, sub-surface graphite mining at depths of up to 1,000 feet would be ecologically devastating and are in no way feasible. Such mining anywhere near the proposed drill sites would devastate three of the four branches of the Upper Rapid Creek Watershed, their surrounding habitats and downstream water quality which residents of Rapid City rely upon. The mining would also irreversibly damage the Madison aquifer, recharged in the geologically sensitive Madison Limestone Plateau, which communities across Western South Dakota and Wyoming rely on.

If the development of subsurface graphite extraction is unfeasible in the proposed area, exploration activities drilling 1000ft in the proposed area are not reasonable, necessary or 'reasonably necessary'. Rather, the environmental costs of such a drilling project far outweigh the benefits, particularly when larger deposits exist in other regions of the U.S. such as the Black Hills or Alaska.

Not Applicable for Categorical Exclusion

Even if the Forest Service determines that the RMEP is a 'reasonably necessary' project, it must be clear that the project does not qualify for Categorical Exclusion (CE) under 36 CFR [sect] 220.6. According to the DoI, CEs are determined as an action that "normally does not significantly affect the quality of the human environment".

However, the human residents of the North Fork Castle Creek Basin affected by the project are unanimous in opposing the project and making clear that it will affect not only our environment but the other non-humans we share it with.

The proposed project violates a number of thresholds that preclude it from CE Status. According to 36 CFR [sect] 220.6 (b) (1), there are seven resource conditions that, "should be considered in determining whether extraordinary circumstances related to a proposed action warrant further analysis and documentation in an EA or an EIS." At least five of these seven conditions are present in the proposed project. (b) (2) clarifies that the extraordinary circumstances are determined by "the degree of the potential effect of a proposed action on these resource conditions". Therefore, I will attempt to highlight the degree of the potential effect on each of the five relevant resource conditions, for your consideration.

Resource Condition Effects: Sensitive Species

"(i) Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species;"

There are several South Dakota sensitive and endangered species that will be affected by the project. It is important to first recognize the ecologically valuable area this project takes place in, particularly in the Northern Unit which is part of an undeveloped corridor between Castle Creek, Pe Sla (formerly Reynolds Prairie), the North Fork Castle Creek Research Area and Black Fox. This corridor contains some of the rarest ecosystems and species in South Dakota. Any drilling in this area will rupture the corridor due to the increased traffic and noise. Further, any species in the vicinity will be disturbed and likely displaced by the noise and increased human activity. The drilling and infiltration galleries in areas close to wetlands, riparian meadows and fens could permanently disrupt or permanently destroy habitat for sensitive species due to changes in water flow, discharge and karst formation.

The impacted upper North Fork Castle Creek Basin and proposed drill site areas contain rare vegetation systems including Black Hills Montane Grasslands, High Elevation Riparian Systems, High Elevation Wetland Systems, Upland Aspen and White spruce/twinflower forests. Several of the proposed drill sites are within or adjoining these vulnerable ecosystems and as such they should be surveyed beforehand.

Within this corridor, there are several sensitive, endangered and endemic species, including the Black Hills Red Bellied Snake, Arrow-leaved Sweet-coltsfoot, Coopers Rocky Mountain Snail, Smooth Greensnake and a number of sensitive birds of prey. A survey must be conducted to determine the impact on such sensitive species. If their distribution in the area is not understood, drilling has the potential to further endanger sensitive species in the Black Hills.

36 C.F.R. [sect] 228.8(e) requires the proposal "to take all practicable measures to maintain and protect fisheries and wildlife habitat which may be affected by the operations." However, no meaningful measures are provided by PLS in the proposal to protect impacted ecosystems and species. Impacted ecosystems and species are not mentioned by PLS, despite the fact that several sensitive ecosystems and sensitive species will be impacted by the project.

As landowners, we request that comprehensive sensitive species surveying be conducted within an EIS to understand the impact this drilling project and ensuing projects will have on sensitive and endangered species in the area.

Resource Condition Effects: Water

"(ii) Flood plains, wetlands, or municipal watersheds;"

This drilling takes place in the Rapid City municipal watershed. As proposed, the project has a high potential to negatively impact the springs, streams, wetlands, karst formations and even aquifers that supply Rapid City and surrounding areas with water, not to mention aquatic ecosystems. The proposal states that "no drilling will occur in streams, riparian areas or wetland areas." This is perhaps untrue. Both sites 7 and 20 are within 100 feet of riparian meadows and thereby can be considered within riparian areas. While at least 6 of the sites are less than 500 feet from North Fork Castle Creek or Castle Creek and, often even closer to the streams adjoining wetlands and riparian areas.

The effect of drilling in the sensitive Madison Limestone Plateau formation is not addressed. However, the Northern Unit of the project is located within the Madison Limestone, in this area that is visibly rich with springs, fens and wetlands as a result of Limestone Karst formations. Any drilling has the potential to disrupt the existing hydro-geological formations. Specifically, the Madison Limestone formation is extremely sensitive to erosion. Any groundwater, including rainwater, that enters the drill sites will further erode the drill holes likely creating holes larger in diameter that proposed by the proposal, thereby increasing the likelihood of aquifer contamination or creating new groundwater discharges (springs) at drill sites that will negatively impact the ecosystems of nearby springs, bogs and fens upon which ecosystems have developed. This plateau is also the Madison Outcrop, where the Madison Aquifer recharges and therefore, is of major importance to residents across Western South Dakota. PLS proposal does not mention the Madison Limestone Plateau, the sensitivity involved with drilling into the Madison Limestone or special precautions that should be taken given the sensitivity. The only measures mentioned to resist erosion or contamination are that "There will be an effort to replace the drill cuttings down the hole" - despite drill cuttings being shipped away for analysis. Additionally, that water is used as a part of the drilling process further increases the likelihood that erosion will occur, which is not addressed.

The proposal allows for in-ground infiltration galleries at each drill site. However, no limit is given on the amount of water which can be taken from each of these sites. This is a concern for local residents as there is a drought and several in the basin are having difficulties accessing water. However, it is also a concern for local environments. Pulling groundwater at these sites will impact nearby springs, potentially lowering or ending their output such that the wetlands or bogs they supply could dry out. This is a particular concern for sites 6 and 7, which are near a small spring on our private property that feeds a bog and serves as a wallow for elk and many other species. This also has the potential to negatively affect cattle that seasonally graze in the meadow and rely on water fed into a plastic bin.

Several of the sites, such as site 7, are within floodplains and closer to seasonal drainage outlets than the 200 ft stated in the proposal. Drill site 5 is not more than 100 feet from a riparian area, in contradiction of requirements.

It is difficult, if not impossible, to know the full degree of potential effect of wetlands and springs affected, as they are not listed in any of the PLS maps. The only hydrological sources listed are those directly from the USGS map, which only shows major streams and is not comprehensive at smaller scales.

Such difficulties make it important to highlight that the proposal appears to be in violation of SDLRC 45-6C-9: "The applicant shall submit with the notice of intent a map, topographic map if available, of the proposed exploration area and of the adjacent one-half mile area surrounding the proposed exploration area. The map shall identify the location of all known natural springs, lakes, ponds, reservoirs, water pipelines, earthen dams, private and public water wells, buildings, proposed or existing roads or trails, and the tentative test hole locations within one-fourth of one-fourth of a section".

There are multiple violations of this law:

- 1) A topographic map is not provided, which makes finding the small, short drill wooden posts in the forest nearly impossible for the general public.
- 2) The maps provided by PLS indicate the drill hole sites, but make no demarcation of the proposed exploration area. However, the above regulation makes it clear that drill sites are distinct and within the exploration area. Without proposed area exploration boundaries, it is impossible to know which required resources and structures are within one-fourth of one-fourth of a section. However, there are dozens of such springs, wells, earthen dams, buildings and other sites present on project map boundaries but not identified and/or visible on the maps.
- 3) If the proposed exploration area is misunderstood to be only the drill sites, there are still required objects which must be identified, including wetlands, within one-fourth of one-fourth of a section from drill sites.

Given the above, we as landowners request an extensive hydrological survey of the area be conducted as part of an EIS to evaluate the effects the project will have on above and below ground water sources. If drilling is conducted before more extensive hydrological mapping is conducted, there is a high likelihood of permanent effects to water sources and wetland areas.

Resource Condition Effects: Ecologically Protected Areas

"(v) Research natural areas;"

Not mentioned in the proposal is that drill site 7 is less than 1.5 miles away from the North Fork Castle Creek Research Area. As the area between the drill site and the RA is undeveloped and mostly uninterrupted, this project would effect roaming and flying species that dwell in the RA, potentially disrupting the RA's intact and rare ecosystems. The project also threatens future attempts to expand the adjoining forest service area and private property downstream North Fork Castle Creek into a larger conservation area for the benefit of the Upper Rapid

Resource Condition Effects: Indigenous Sacred Values and Kin

"(vi) American Indians and Alaska Native religious or cultural sites;"

While a portion of Pe Sla is now owned and protected by a group of Oceti Sakowin Tribes, the North Fork Castle Creek Basin should be considered of equal religious and cultural value to the Oceti Sakowin and other plains tribes, as it adjoins Pe Sla, was certainly settled by Tribes in their visits to Pe Sla and sits between the sacred mountains now known as Flag Mountain and White Tail Peak. The closest sites to tribally owned property are sites 16 and 17, both of which are visible from and less than a mile away from Pe Sla such that sacred ceremonies on Pe Sla may be disturbed by the drilling.

Tribal Knowledge holders must be brought to the drill sites to conduct a cultural survey of the project's impacts as part of an EIS. To neglect doing so would not only ignore Native American ties to the area but also potentially destroy sacred sites while permanently harming nearby recorded sacred sites.

Resource Condition Effects: Historical Sites

"(vii) Archaeological sites, or historic properties or areas."

Stage Stop Properties LLC is part of the historic district, Joseph Reynolds Ranch Yard and Stage Stop, which was added to the National Register of HIstoric Places in 2022. The site is a symbol of the settlement of the Black Hills after the violation of the 1868 Fort Laramie Treaty, one of the first permanent Euro-American settlements and the first known site of mining in the hills. The site was also home to one of the most important stage stops on the Cheyenne-Deadwood trail, which is still visible running through the property. The historic district contains structures dating back to the 1800s and is mostly identical to its condition in the 1950s after my parents' restoration efforts. The ongoing natural beauty and undeveloped nature of the property preserves its historic value. Every new car that drives by S Rochford Rd takes a picture of the massive Reynolds barn with its idyllic North Fork Castle Creek Meadow. The district has become an icon of the Black Hills. This preservation and undisturbed beauty continues across our property, which includes a historic mineral patent as described in the nomination to the SDSHS submitted by my mother in her comment on the project. Drill site 7 is less than 200 feet from our property and the historic property of Joseph Reynolds.

We are concerned that the project will permanently disrupt the historic value of our property for current visitors and future generations. The project's threats include the drilling noise and the presence of a drilling operation and rig so close to the property we have worked to preserve. Any future mining that follows the drilling would undeniably harm the property's historic value.

I am also concerned that the project represents a violation of section 106 of the National Historic Preservation Act of 1966, which requires the Forest Service to consult with the State Historic Preservation Officer, which as of last week had not been done. This consultation must be conducted with the SHPO, long-time residents, the Reynolds family descendants, owners of the property and Tribal Historic Preservation Officers so that we can better understand the effects of the projects and what can be done to mitigate them.

Further, once the Cheyenne-Deadwood Wagon Trail leaves our property and heads north, its exact location becomes unknown but inevitably crosses the access routes proposed to be used in the project's Northern Unit. It's impossible to know the damage this traffic and or drill sites could cause if further historical analysis with experts is not first conducted.

Roads and CE Applicability

There appears to be a misinterpretation of the proposal's fitness for Categorical Exclusion under 36 CFR 220.6 (e)(8), "Construction of less than 1 mile of low standard road or use and minor repair of existing roads."

The CFR's 'or' implies an exclusionary relationship between the construction of new roads and the repair of existing roads. However, this proposal involves extensive construction of new roads and repair and likely modification of existing roads.

Additionally, 36 CFR 220.6 (e)(8)'s examples of mineral investigations provided thereafter are not proportionate with the additional impacts included in the proposal in question:

- "(i) Authorizing geophysical investigations which use existing roads that may require incidental repair to reach sites for drilling core holes"
- "(iv) Clearing vegetation for sight paths or from areas used for investigation or support facilities;"
- "(vii) Approving a plan for exploration which authorizes repair of an existing road and the construction of 1/3 mile of temporary road; clearing vegetation from an acre of land for trenches, drill pads, or support facilities."

According to PLS's estimates, 2.5 acres of land will be occupied and therefore cleared for the drill sites. PLS says 3.2 acres will be disturbed by drill sites. A more reasonable conservative estimate is that over 4 acres will be occupied by drill site activities and cleared of vegetation, excluding vegetation cleared for the road.

According to the proposal, "Access trails requiring improvement will be 15 feet wide and total of 9,444 feet in length. Approximately 3.3 acres of trees will be removed to accommodate access trails." Although James Gubbels later clarified that "Access from existing NFS road or temporary access routes to drill pads reduced from 9,500 feet to 5,060 feet." This adds further confusion as the initial 9,444 seemed to imply the distance of access road categorized as "Existing Overland Travel Routes". James Gubbels comment implies that access on FS and non-FS roads will total 5,060 feet - which would be categorically impossible.

The confusion may come from the muddled nature of the different categories of roads provided by PLS. The proposal is disengenuous by implying it can use existing two-track roads not recognized as FS roads without additional environmental considerations besides widening. However, the use of non-FS recognized roads is illegal in the BHNF. Illicit roads should not be considered as grandfathered access roads. If Pete Lien and Sons wishes to use illicit two-track trails in their project, this should be considered as new road construction as their use will impede the restoration of trails that have begun or should begin to naturally restore. By properly listing the use of formerly illicit tracks as "New Temporary Overland Routes" in the project, the Rochford Mineral Exploration Project would be enacting the construction of more than 1 mile of low-standard road and therefore lacks grounds for CE applicability. Even if the new figure cited by James Gubbels, 5,060, represents the repair to formerly illicit two-track roads, the formerly demarcated "New Temporary Overland Access Routes" would combine to make over 1 mile of new temporary road.

Further, the use of Seven Hills Road consists of over 2 miles of transport through ecologically sensitive wetlands and riparian areas, often less than several feet from North Fork Castle Creek. While it is a FS road, it is not a developed road, with spruce tree branches hanging over the road and the road often traversing through exposed groundwater surface discharge creating muddy ruts. In violation of 36 CFR [sect] 228.4, PLS did not disclose the standards of the existing FS roads, many of which are underdeveloped such as Seven Hills Road. Heavy traffic and machinery on this road will have effects on the riparian area and likely pollute North Fork Castle Creek, particularly in the event of increased precipitation.

Because of the concerns on 1) whether CE covers repair of existing roads and construction of new roads; 2) whether the construction of new roads is less than 1 mile and 3) the environmental effects of heavy traffic in roads that pass thorugh miles of riparian and wetland areas that were not disclosed as underdeveloped, this project does not qualify for CE.

Additional Circumstances

There are additional extraordinary circumstances worth mentioning.

All of the affected drill sites are the habitat of elk and mule deer. More extensive documentation of which will be forwarded directly to Thawney Stottler. However, the noise and human activity from drilling will almost certainly affect them and displace them from the basin to the disturbance of other herds. This will also be the case for mountain lions photographed near drill sites.

One of the sites is frequented by one of the few black bears that has resettled in the Black Hills and is supported by photo documentation. The reintroduction of black bears is of ecological importance and spiritual importance to Oceti Sakowin Tribes. The drilling would displace the brown bear, likely permanently due to its fragile settlement in the area. This displacement would have cascading ecological effects in the loss of an apex predator species

and spiritual sacred effects due to the importance of bears, mato, in Oceti Sakowin mythology.

Drill site 14 is less than 800 feet away from a permanent residence and drill site 8 is less than 1000 feet away from another. With permission to drill 24 hours a day, drilling this close to permanent residences raises health and quality of life concerns for these residents which have not been addressed. The loud noise from drilling will prevent residents from being able to work or sleep in their own homes and they have yet to be properly consulted.

It is mentioned that human waste will be 'contained in portable toilets or similar receptacles' but the location of these human waste sites is not mentioned, even though they have the potential to disturb the local environment and negatively affect wildlife or create toxic runoff in extreme weather events. This is particularly concerning as over half of the sites are within 500 feet of streams, riparian areas or seasonal drainage zones.

"Overall disturbance is projected to be 3.2 acres for drill sites" Assuming the area of disturbance for each drill site is only 30'x50'. This is an unrealistic area in which to fit the drill right, infiltration gallery, motor vehicles and waste created physically. The photos provided by Pete Lien and Sons of example drill sites (slides 7, 8 and 9) clearly show areas of disturbance larger than 30'x50'. Not to mention that the most significant impacts to the environment will come from the auditory and visual effects - the sound and visual effects of the project, which will affect wildlife with a radius of hundreds of feet. A more reasonable assessment of the drill site disturbance area should be provided, in addition to the disturbance area as experienced by wildlife.

The PLS proposal claims that the drill sites are not easily visible from surrounding area or trials. This is not true, several of the drill sites occur at or near the top of ridge lines and would be visible from miles away.

Conclusion

I hope the above information makes it clear that this project is not applicable for CE and instead may have significant environmental effects that an EIS must be conducted beforehand. That is, an EIS must be conducted if the project is deemed reasonably necessary given the devastating impact any graphite mining in the area will have on the Hills and Western South Dakota residents.

Having been made aware of this project less than three weeks ago, I have yet to have time to completely understand and research the numerous and complex potential effects of this project. The public comment period should be further extended for 60 days such that landowners who have felt rushed in this process, and residents who rely on the Rapid Creek and Madison Aquifer for their sustenance, may be properly informed and consulted.