



Pacific PEER

Public Employees for Environmental Responsibility

April 21, 2021

RE: PEER Comments on the Environmental Assessment (EA) for Diamond Communication's 187-mile fiber optic cable proposal for Yellowstone National Park

These comments are submitted on behalf of Public Employees for Environmental Responsibility (PEER). For the reasons below, PEER urges Yellowstone to reject Diamond's application for a right of way (ROW) in Yellowstone or to at least require the preparation of a full Environmental Impact Statement (EIS) to aid in reaching a decision.

Overview

Yellowstone was set aside as the world's first national park because of its hydrothermal wonders. The park contains more than 10,000 thermal features, including the world's greatest concentration of geysers as well as hot springs and steam vents. Indeed, the Yellowstone National Park Protection Act of 1872 directs the Secretary of Interior to take all steps needed for the "preservation" of these "natural curiosities, or wonders within said park, and their retention in their natural condition."

Thus, protecting these hydrothermal features could be characterized as Yellowstone's prime directive. Unfortunately, this proposal puts this organic mission at risk.

Specific Comments

I. Proposal Threatens Yellowstone's Hydrothermal Features

In 2014, the Old Faithful Science Review Panel (composed of seven scientists, including Yellowstone's geologist, Henry P. Heasler) issued a report titled, "Hydrogeology of the Old Faithful Area, Yellowstone National Park, Wyoming, and its Relevance to Natural Resources and Infrastructure" (see Open-File Report, 2014-1058). The report offered a "zone concept" as "one potential method to reduce the risk of permanently impairing the Old Faithful hydrothermal system..."

In the "Red Zone," areas with "active hydrothermal activity of with high potential for hydrothermal activity that can negatively impact infrastructure, or vice versa," the scientists recommend that "... further development (addition or expansion) of infrastructure would be prohibited." (emphasis added) In addition, "Existing infrastructure should be retired or reduced as practical... [A]s opportunities for relocation/removal present themselves, they should be pursued."

In the "Yellow Zone," areas with "unknown potential for hydrothermal activity," the panel advises restrictions on new infrastructure, including site-specific studies before any approval of new development projects.



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Diamond's proposal includes new trenching in the Red Zone and the Yellow Zone. Of particular concern is that Diamond's proposal directly contradicts the advice of geothermal experts that no new infrastructure be allowed in Yellowstone's "Red Zone" near Old Faithful.

II. Proposed Mitigations Inadequate

Notably, the EA does not mention this 2014 USGS report or address in any way the concerns raised about new infrastructure in these areas. Furthermore, the 2014 report by the Old Faithful Science Review Panel dealt only with the Old Faithful area. Diamond's proposal has the potential to negatively impact thermal features throughout the park.

These issues are addressed only in an appendix of the EA: APPENDIX C – IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS. This appendix completely omits some issues and provides contradictory, conclusory guidance on other issues:

A. Old Faithful Overpass

The EA fails to discuss the fiber optic cable route at the Old Faithful Overpass, an area of long-standing controversy concerning damage to thermal features. The 2014 report on the hydrogeology of the Old Faithful area contains this description on page 7:

“There are places in YNP where park infrastructure has impacted hydrothermal features, in some cases catastrophically. For example, in the 1960s, the excavation of the footing for the main support of the Old Faithful overpass intercepted very hot water that flowed at a rate of about 150-190 L/min (40-50 gal/min). Nearby hot springs simultaneously dried up...The approach devised to allow construction of the overpass to continue was to divert the flow of this water into a new culvert so that it could discharge freely from beneath the road about 300m (980 ft) to the west.”

On July 22, 2020, Yellowstone announced in a press release that “traffic is being routed around the Old Faithful Overpass Bridge due to safety concerns. Currently the National Park Service is evaluating the condition of the bridge.” As of April 2021, work at the bridge continues into a second year, but the public has never been told the details of what went wrong. (There has been no public notice of any environmental compliance to date.)

This illustrates an important point about Yellowstone's history: this bridge was a bad idea to begin with, it devastated park thermal features, and yet it just had to be built, and now rebuilt. Given the park's history of thermal feature damage, it is deeply troubling to read on page 21 of the Diamond EA that “in areas of abundant geothermal resources, such as Old Faithful, active thermal features and/or elevated soil temperatures would be avoided to the maximum extent possible.”



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This “maximum extent possible” caveat is both unclear and offers little protection to prevent impairment of Yellowstone’s thermal features. In addition, this stance appears inconsistent with the various laws and regulations that require full protection for these remarkable treasures.

B. Questionable, Confusing Mitigation

The EA makes various statements about why construction impacts on hydrothermal issues should be disregarded. For example, it states on page 19 that just .2 miles of cable would be installed by “boring” to avoid geothermal zones. Anyone familiar with Yellowstone would find that number a significant underestimation, and the EA offers no detailed map to explain exactly where this .2-mile stretch is.

Further, the EA contains contradictory information about critical details of the proposal. For example, the text is clear that a trench no deeper than 10” would be allowed in thermal areas. See, e.g., Table 2 on page 19 of the EA:

“Standard depth of excavation in geothermal areas would be approximately 10 inches or shallower if required.”

Similar language can be found on pages 13, 14, 21, and 44. The drawing on page 15, however, shows that the “Typical Thermal Area Trench” would be as deep as 14 inches, including the 4-inch HDPE conduit to be used in thermal areas. Which is correct? A trench 14 inches deep or 10 inches? Those four inches might make a huge difference in a fragile thermal area.

Moreover, the EA sheds no light on how the public can be assured that no trenching deeper than 10 inches will actually occur. The EA makes no mention of any monitoring process for Diamond’s construction activities.

More contradictory language can be found on page 44. The EA states that the “park has identified all surface geothermal resources and features in the project area, and the design has taken these features into consideration to avoid potential impacts.” That statement, however, is inconsistent with language on page 21, where it states that in areas of abundant geothermal resources, “site-specific geothermal investigations would be required prior to installation of the fiber optic cable in these areas.” Clearly, the park does not have a firm handle on the hydrothermal resources that may be put at risk.

C. Uncertainties Abound

The EA is replete with contingencies whose resolution is not explained in any detail. Consider the following statements:

“The contractor will cease all work in the immediate vicinity and contact the park geologist if any of the following conditions are encountered:



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1. A pre-existing hole in the ground the size of a basketball, or larger,
2. Standing or flowing water, either hot or cold,
3. Any concentrations of either carbon dioxide or hydrogen sulfide are measured by the Applicant installing the conduit,
4. If during excavation a red clay layer is encountered, or
5. Ground temperatures above 80 degrees Fahrenheit are measured (early morning) by the contractor installing the conduit.” (page 21)

If these events come to pass, the existence of a solution appears to be assumed but not identified.

Consider this example of complete opacity:

“If impacts to resources cannot be avoided through these mitigation measures, the park would require the Applicant to provide a suitable alternative that would maintain the telecommunications capability otherwise provided by fiber optic connection, while also avoiding ground disturbance resulting in impacts to thermal features.” (page 44)

The nature of that “suitable alternative” is not even hinted at.

And this passage of the EA suggests that resource damage may be unavoidable with this proposal:

“If the cultural remains are assessed as significant and retain integrity for the archeological information they may provide, the site will be avoided and protected. If avoidance is not possible, data recovery excavations will be conducted prior to any construction activity resuming in the area...” (page 23)

Perhaps, most indicative is this hedge:

Re maintenance activities: “The issues cannot be anticipated, would be addressed on a case-by-case basis as they arise, and may require additional environmental compliance...” (page 20)

Significantly, it is this EA process that is supposed to specify what, if any additional “environmental compliance” is entailed in this proposal.

III. A Full EIS Is Required

The NPS National Environmental Policy Act (NEPA) Handbook summarizes Council on Environmental Quality regulations (40 CFR parts 1500–1508) delineating factors indicating significant effects. The factors listed that are present in this proposal would preclude a Finding of No Significant Impact (FONSI) and instead require preparation of a full EIS. These factors include:



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- Unique characteristics of the geographic area;
- Potential impacts that are highly uncertain or involve unique or unknown risks;
- The degree to which the action may adversely affect scientific resources;
- The degree to which the action may establish a precedent for future actions with significant effects; or
- The degree to which the effects are likely to be highly controversial.

All of these factors appear to apply to this proposal.

As the NPS NEPA Handbook makes that clear: "... before implementing any action, environmental effects must be analyzed in 'adequate detail' so as to inform decision making. For site-specific actions, this means site-specific detail." (page 14). Yet, this proposal's EA concedes that further "site-specific geothermal investigations" are required.

NEPA also requires NPS and other federal agencies to take an objective look at a proposal before deciding to approve it – that is the whole point of the EA.

Unfortunately, in this instance, NPS has already signaled its pre-approval. In an e-mail this past November, park environmental staff voiced concern about their ability to "stay on track for a FONSI in March." This stance appears to fly in the face of the precept expressed in the NPS NEPA Handbook that the agency must "ensure that the process is not 'used to rationalize or justify decisions already made.'" (page 15)

IV. Removing Illegal Passive Reflectors Is No Mitigation

The EA cites removal of five passive reflectors located in park backcountry as a benefit. This is an ironic mitigation in that these structures should never have been allowed in the first place. areas recommended as wilderness Removing them should be done immediately, without any trade-off for this new proposal.

Moreover, the improper approval of these structures only highlights Yellowstone's past (and arguably ongoing) tendencies to skirt NEPA and other related legal requirements to protect resources and ensure public involvement in order to expand connectivity in the park.

Adding insult to this earlier injury, the EA does not guarantee that this illegal infrastructure will be removed. As NPS indicates, it will be subject to "additional compliance review, minimum requirement analysis (MRA) under the Wilderness Act, and other pertinent laws and regulation..." (page 20) These caveats are doubly ironic in that the above-referenced reviews were not completed before these structures were installed in the first place.



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V. Need for Proposal Is Presumed Rather Than Proven

In justifying this proposal, Yellowstone cites two interrelated factors: “Visitor Expectations” and the need to deal with an “increasing number of visitors.”

The EA states that “upgrades to park telecommunications infrastructure are also needed in order to provide adequate data capacity and bandwidth... to meet the expectations of visitors who rely on mobile devices and networks while in the park.” (page 1) In support of this contention, the EA cites a 2017 “visitor use study” to conclude that a “majority” of respondents considered the connectivity quality in the park to be either “poor” or “no service” at all.

Significantly, the study noted that “using these devices was rated as relatively unimportant to visitors while in the park...” Moreover, since that survey, the park has made numerous infrastructure “improvements,” including a massive new industrial structure at Mt. Washburn intended to expand bandwidth by a factor of 35.

PEER frequently submits Freedom of Information Act requests to Yellowstone on this topic, seeking correspondence from members of the public. This year, once again, there were no responsive documents provided by the park. In other words, not a single member of the public complained about cell service in an official way during the past year. Yet reading this EA gives the impression that the public is clamoring for more cellular service or internet connectivity. That does not appear to be the case.

“An increasing number of visitors” is mentioned repeatedly in the EA as one reason for enhancing telecommunications. (See pages 28 and 30, for example). Yet, Yellowstone National Park has been grossly derelict in its legal obligations to directly address this issue. The National Park and Recreation Act of 1978 established a statutory requirement (54 U.S.C. § 100502) that national park general management plans include “visitor carrying capacities for all areas” of each park unit. Notably, Yellowstone has not adopted a General Management Plan in this century (the last plan was 1990) and has never established any of the required carrying capacities.

Nor can Yellowstone fulfill its legally required visitation management responsibilities by expanding bandwidth in the park by a factor of 300,000 and further commercializing the park to enable visitors to do in Yellowstone what they can do everywhere else.

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