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Kelsey Jolley
Spirit Lake NEPA Coordinator
United States Forest Service
987 McClellan Road
Vancouver, WA 98661

Submitted via webportal: <https://cara.fs2c.usda.gov/Public//CommentInput?Project=66482>

RE: Scoping Comments Spirit Lake Outflow Safety Improvement Project #66482

Dear Ms. Jolley:

Thank you for the opportunity to provide input on the Spirit Lake Outflow Safety Improvement Project. Cascade Forest Conservancy's (CFC) mission is to protect and sustain the forests, streams, wildlife, and communities in the southern Washington Cascades through conservation, education, and advocacy. We represent over 12,000 members and supporters who share our vision for a forest where wild places exist and wildlife thrives. CFC recognizes the Spirit Lake and Toutle River system is complex, dynamic, and geologically young, which presents unique challenges. This project also sits within the unique and special landscape of the Mount Saint Helens National Volcanic Monument, a designation which requires the Agency to “manage the Monument to protect the geologic, ecologic, and cultural resources . . . allowing geologic forces and ecological succession to continue substantially unimpeded.”¹ The Act also requires the Agency to allow “full use of the Monument for scientific study and research.”² With the purposes of the Monument and these challenges in mind, we have the following questions and suggestions related to the project’s scoping notice and address them below by topic. We request all of these questions and suggestions be addressed in the upcoming DEIS.

¹ Mount St. Helens National Volcanic Monument, Wash. Designation 16 U.S.C. § 431, 96 Stat. 301 (1982).

² *Id.* at § 4(c) (“The Secretary shall permit the full use of the Monument for scientific study and research, except that the Secretary may impose such restrictions as may be necessary to protect public health and safety and to prevent undue modification of the natural conditions of the Monument.”)

I. Examine All Environmental Impacts of the Alternatives

CFC would like to ensure all of the environmental impacts of each alternative are considered in the DEIS. We would like to see a lifecycle analysis of each alternative to allow for a true weighing of the environmental impacts and consequences of the different options. This is not an exhaustive list, but we would like to see all of the following issues included in the analysis:

- The carbon impacts of each alternative. For example, the carbon footprint of the major hauling work required for the open channel alternative and any other alternative that requires earth work. The estimates should include enough specificity to allow comparison of alternatives that have similar components.
- The impacts both to the ecosystem of the proposed disposal area(s) and the carbon and other impacts such as the spread of invasives, impacts to water, etc. of hauling and placing the dredge material in different possible disposal locations.
- Impacts to unique and sensitive species in the project area for each alternative.
- The threat and risk of introducing invasive species for each alternative. This threat analysis should take into account the difficulty in implementing project design criteria that might prevent the spread of invasives. In other words, who will enforce these measures?
- For the alternatives, analyze any unique impacts and the severity of impacts to all sensitive ecosystems in the project area such as the pumice plain.
- Impacts to research happening within the pumice plain for the alternatives. This analysis should not just look at the number of research plots impacted, but at the type of research being impacted and the value of that research nationally and internationally. Additionally, to what extent do the alternatives impede research opportunities on the Monument both during construction and long-term?
- Impacts to sensitive wetlands and downstream waterways. This discussion should include how lowering the lake level could impact these sensitive ecosystems and species dependent on these ecosystems.
- The flow rate for the different outlet options should be considered, along with how those different flow rates may impact the downstream aquatic ecosystems. In addition to examining the amount of sediment being transported the analysis should consider other water quality parameters like temperature and dissolved oxygen.
- The DEIS should examine how the alternatives impact sediment movement throughout the system, including but not limited to impacts to the SRS.
- We would also like to see an analysis of how each alternative would impact the “wild-ness” and natural character of the area. To what degree do the alternatives move the system towards a more natural state? To what extent do each of the alternatives allow “geologic forces and ecological succession to continue substantially unimpeded”³?

³ *Id.* at § 4(b)(1).

Along with these particular issues, each alternative should look at the environmental impacts of each project element, including the primary outlet, the redundant feature, the access means, the support infrastructure, and construction and maintenance impacts. Each type of environmental impact should be analyzed with enough specificity and granularity to allow for comparison between alternatives with similar types of impacts. For example, for those alternatives requiring heavy earth works, the amount of material to be moved and other relevant data should be specific to the alternative and not a more general statement like “these three alternatives would need heavy earth works, moving between X and Y amount of material.” A meaningful comparison of all environmental impacts from each alternative and their component parts will help the public and the agency make an informed decision and meet the goals of the National Academies of Sciences, Engineering, and Medicine Report.⁴

II. Access for Construction and Maintenance

CFC is concerned about the environmental impacts of various access alternatives and would like to ensure all access possibilities are considered given the sensitivity of the pumice plain, the wetlands and other water features near Spirit Lake, and the on-going geologic hazards. We would also like to see the DEIS consider whether long-term motorized access to Spirit Lake is truly needed for each alternative and the size and type of roadway or landing structure needed. For example, what sort of long-term access, if any, would be needed for a pressure tunnel with the outlet controls on the downstream side? What size of roadway or landing pad and what type of equipment would be needed to construct a new tunnel, buried conduit, open channel, or full repair of the existing tunnel?

III. New and Existing Tunnel Repairs

CFC has some questions about the tunnel options we would like to see addressed in the DEIS. Presentations around this project have indicated that a new tunnel, gravity or pressure, would likely be cited next to the existing tunnel. Is a new tunnel expected to survive all seismic activity in the area? The analysis should address this question and the likelihood of both the existing tunnel and a new tunnel being negatively impacted by the same seismic activity, compromising both the primary and redundant features. CFC would also like to see in the analysis a realistic estimate of the life expectancy of all tunnel options included in the DEIS. Are they expected to last 20 years, 50, 100? Additionally, what level of maintenance would be required to ensure a new or repaired tunnel lasts reliably throughout its whole life expectancy?

⁴ “The USFS intends to use the framework recommended by the National Academies to *collaboratively examine the viability of various management alternatives and make informed decisions*, first about management of water levels in Spirit Lake—which is within their jurisdiction—and then about the larger system.” NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, AND MEDICINE. A DECISION FRAMEWORK FOR MANAGING THE SPIRIT LAKE AND TOUTLE RIVER SYSTEM AT MOUNT ST. HELENS, 26, available at <https://doi.org/10.17226/24874> (2018) (emphasis added).

IV. Adaptive Management

CFC encourages the agency to incorporate meaningful adaptive management compliant with environmental laws into the alternatives. For adaptive management to survive legal scrutiny, the DEIS needs to include clear management triggers and analyze all of the impacts of the different management options after a trigger occurs. “[A]daptive management can survive judicial review but only when mechanisms are built into the plan that require clear and meaningful actions that are triggered when specific conditions are met.”⁵ Additionally, for the adaptive management to actually work, it is important that the Final EIS and decision document make a feedback loop that is clear and explicit:

If an agency advances something that is really contingency planning, but is packaged as adaptive management, this could appear disingenuous and erode trust in already-contentious contexts. Furthermore, if so-called adaptive management plans fail to make the link between management actions, monitoring information, and learning, the opportunity to reduce uncertainty about the ecosystem likely is lost. Adaptive management plans will be more effective if they are designed to facilitate learning and include a clear feedback loop for adaptive planning, which ties lessons learned from monitoring information to actual management changes.⁶

If the agency intends to use adaptive management to manage this geologically young landscape, we encourage the agency to follow the advice in the paper cited in this section when developing triggers and other relevant components of an adaptive management strategy.

V. Availability of Underlying Data and Reports & Transparent Process

CFC would like to request that all underlying data, reports, or other information relied on for decision making be shared with the public as soon as those documents can be made available. Providing as much information as possible as early as possible will help the process be more transparent and open and give the public time to adequately examine what is likely to be very technical and detailed reports. Given the contentious and complex nature of this decision and the size of the project, a transparent and open process seems imperative to sound decision-making.

⁵ Martin A. Nie & Courtney A. Schultz, *Decision-Making Triggers in Adaptive Management*, 26 CONSERVATION BIO. 1137, 1140 (2012).

⁶ *Id.* at 1142.

VI. Forest Service Budget Concerns

CFC is concerned that current budgetary issues will negatively impact this project. Given the almost \$700 million dollar budget shortfall in FY 2025 and the expectation that funding and staffing will be tight for several years to come, how does the smaller and more limited agency capacity impact the alternatives and the project as a whole? How does it impact the agency's ability to ensure contractors comply with project design criteria meant to protect sensitive resources and mitigate harm? This funding and staffing reality should be contemplated when examining the alternatives.

VII. Conclusion

We appreciate the opportunity to provide scoping comments on the Spirit Lake Outflow Safety Improvement Project. Although we've raised several questions and suggestions related to the project's environmental and research impacts, we acknowledge the need to address the issue and ensure public safety for downstream communities. These comments are meant to highlight important environmental and research questions and components that should be in the DEIS to allow for meaningful comparisons of the alternatives. CFC encourages the agency to incorporate all of these suggestions to help ensure a robust DEIS. We look forward to working with the agency and other partners to move this project forward.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ashley Short', with a stylized 'A' and 'S'.

Ashley Short
Policy Manager
Cascade Forest Conservancy
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