
File Code: 1570; 1950

Date:

Eligible Objectors, Spirit Lake Project
Sent via email

Dear Eligible Objectors:

This letter is in response to your objection to the draft Decision Notice (DN) and Finding of No Significant Impact (FONSI) for the Spirit Lake Intake Tunnel Gate Replacement and Geotechnical Drilling Project, Mount St. Helens National Volcanic Monument, Gifford Pinchot National Forest. I have read your objection and reviewed the project record, the draft DN/FONSI, and the final Environmental Assessment (EA). My review of your objection was conducted in accordance with the regulation at 36 CFR 218 (2013).

PROJECT DESCRIPTION

On Tuesday, April 7, 2020, the Forest Supervisor of the Gifford Pinchot National Forest released the Spirit Lake Intake Tunnel Gate Replacement and Geotechnical Drilling Project EA, draft DN and FONSI for objection. The Forest Supervisor proposes to implement Alternative B in the draft decision, which authorizes the following:

- Replacement of the intake gate structure of the Spirit Lake tunnel;
- Reconstruction of portions of National Forest System Road 99;
- Construction of temporary access roads, staging areas and a barge loading facility;
- Geotechnical investigation and core sampling within the debris blockage;
- Stabilization and rehabilitation activities during and after project implementation;
- and,
- Authorization of a project-level Forest Plan amendment for visual quality objectives (VQO), allowing for a VQO of partial-retention, instead of retention, for the life of the project.

OBJECTION ISSUE DISCUSSION

The eligible objectors raised a number of concerns that fell under the themes of NEPA adequacy (adequacy of the analysis, consideration of reasonable alternatives, response to comments and analysis of the Forest Plan amendment), impacts to research (physical and economic impacts to ongoing and future research) and impacts to the Pumice Plain/Spirit Lake (impacts to aquatic/hydrologic resources; impacts to visuals and recreation; violation of the Aquatic Conservation Strategy; impacts to soils; and impacts to wildlife, vegetation and air quality).

The objection resolution meeting was held on July 8, 2020. I found the dialogue with all of the objectors helpful and thoughtful. I appreciate the passion and commitment for the Monument. I understand the concerns raised and I also understand the balance that must be considered by the Responsible Official when it comes to managing for public safety. During the meeting, I found that two specific concerns that were discussed can be clarified in the final decision.



With regard to wetlands and streams, any additional water features such as wetlands and streams found during field visits will be assessed and delineated following protocols from the permitting agencies; new wetlands, streams, and other surface water discovered or delineated during field visits in the summer 2020 will be documented and added to the Washington State Joint Aquatic Resources Permit Application (JARPA, currently in process). This means that any additional wetlands that may be impacted would be added to the wetland mitigation plan. I instruct the Responsible Official to clearly articulate this in the final decision.

With regard to the concern about spreading invasive species, the New Zealand mud snail decontamination plan follows the guidance set forth by the State of Washington. As discussed during the objection resolution meeting, I instruct the Responsible Official to further articulate the final decontamination plan, as outlined in the project design criteria for the project, in the final decision.

CONCLUSION

I conducted my review of the record, final EA, and draft DN/FONSI. Based on my review, I conclude the following:

- The draft decision clearly describes the actions to be taken in sufficient detail that the reader can easily understand what will occur as a result of the draft decision.
- The draft decision considered a range of alternatives that was adequate to respond to the Purpose and Need for action. The purpose and need and alternatives considered in the final EA reflect a reasonable range of alternatives, consistent with law, regulation and policy.
- The draft decision is consistent with Forest Plan and Comprehensive Management Plan standards and guidelines.
- The draft decision is consistent with policy, regulation, law, direction, and the final EA contains adequate evidence to support the decision. The record and final decision contain site-specific documentation regarding resource conditions, and the Responsible Official's draft decision document is based on the record and reflects a reasonable conclusion.

This concludes my written review of the project. By copy of this letter and the enclosed response document, the Responsible Official may sign the decision after including the clarifications noted above, then notify interested and affected persons in accordance with the regulation at 36 CFR 218.12 and 36 CFR 220.7(d). This written response is the final administrative review by the Forest Service or the Department of Agriculture [36 CFR 218.11(b)(2)].

Sincerely,

LISA A. NORTHROP
Deputy Regional Forester
Objection Reviewing Officer

Enclosure

cc: Eric Veach; Angela Elam; Rebecca C. Hoffman; Karen Thompson; Chris Strebis; Stephani Rusk; Sitka Pence; Debbie Anderson; Heidi Hopkins

**Spirit Lake Tunnel Intake Gate Replacement and Geotechnical Drilling Project
Environmental Assessment (EA)
Mount St. Helens National Volcanic Monument
Gifford Pinchot National Forest
Objection Statements and Responses
August 2020**

Objector	Objection Number
Luan Pinson (LP)	#20-06-00-0010-218(B)
David Vainikka (DV)	#20-06-00-0014-218(B)
Felice Kelly (FK)	#20-06-00-0026-218(B)
Barb Fox Kilgore (BK)	#20-06-00-0027-218(B)
Sofia D’Ambrosio (SD)	#20-06-00-0029-218(B)
Michael Allen (MA)	#20-06-00-0031-218(B)
Christine Colasurdo (CC)	#20-06-00-0032-218(B)
Laura Bernard (LB)	#20-06-00-0033-218(B)
Marianne Nelson (MN)	#20-06-00-0036-218(B)
Blythe Olson (BO)	#20-06-00-0037-218(B)
Aphra Katzev (AK)	#20-06-00-0039-218(B)
Dr. Debra Finn (DDF)	#20-06-00-0040-218(B)
Constance McConnell (CM)	#20-06-00-0041-218(B)
Marita Ingalsbe (MI)	#20-06-00-0043-218(B)
Avery Shinneman (AS)	#20-06-00-0048-218(B)
Edie Millar (EM)	#20-06-00-0050-218(B)
Dr. Carri LeRoy (DCL)	#20-06-00-0052-218(B)
Van Bobbitt, WA Native Plant Society (VB)	#20-06-00-0053-218(B)
Sarah Madsen (SM)	#20-06-00-0054-218(B)
Joy Hobbs (JH)	#20-06-00-0055-218(B)
Susan Saul (SS)	#20-06-00-0057-218(B)
Laurie Kerr (LK)	#20-06-00-0058-218(B)
Celeste Colasurdo (CEC)	#20-06-00-0059-218(B)
Nina Ferrari (NF)	#20-06-00-0060-218(B)
Dr. Fred Swanson (DFS)	#20-06-00-0061-218(B)
Albert O’Connor (AO)	#20-06-00-0063-218(B)
Iris Garthwaite (IG)	#20-06-00-0065-218(B)
Lucy Brookham, Cascade Forest Conservancy (CFC)	#20-06-00-0066-218(B)
Dr. John Bishop (DJB)	#20-06-00-0067-218(B)
Dr. James Gawel (DJG)	#20-06-00-0068-218(B)
Alex Wachter (AW)	#20-06-00-0069-218(B)

Objector David Vainikka supports the project.

NEPA Adequacy

Overview and Objector’s Suggested Remedy: These objection issues focus on the objectors concerns over the adequacy of the analysis and consideration of all reasonable alternatives. Suggested remedy is to not build the road; withdraw the draft decision and prepare an Environmental Impact Statement (EIS); meaningfully respond to and address public comments; release all documents requested through

the Freedom of Information Act (FOIA); extend the objection period to allow for adequate time to respond to the information in the record; revise the project so that a project-specific Forest Plan amendment is not required; and to fully consider all reasonable alternatives.

Objector Statement #1: Objector states that while there are legitimate concerns regarding management of Spirit Lake water levels to protect downstream public safety, the US Geological Survey indicates that failure of the lake would require “an extremely abnormal series” of climactic events and that there would be many months for agencies to respond and mitigate before downstream communities would be affected. LP at 1¹; VB at 1; LK at 2; AO at 1; DJB at 1; AW at 1; SS at 2; CFC at 1-2.

Response: I find that the Responsible Official² adequately described the need for action in the EA and FONSI.

The regulation at 36 CFR 220.7(b)(2) states that an EA, “...must briefly describe the need for the project.”

Nowhere in the EA is it implied that there is an “imminent” catastrophe. Instead, the finding of no significant impact (FONSI) at 2-3³ explains that if a Spirit Lake outburst flood were to occur, it could result in a catastrophic event similar to the 1980s eruption. In the draft decision and rationale section, the draft decision notice (DN) at 3 stated “As the Gifford Pinchot National Forest Supervisor, I am responsible for the management of the Spirit Lake outflow as a geologic hazard. I believe that, based on the environmental assessment and associated project record, the current risk situation at Spirit Lake is unacceptable and action is required.” As noted in the FONSI and EA at pages 3-6, the tunnel has experienced periodic fracturing of its lining and uplifting of the tunnel floor. Having a thorough understanding of the composition of the debris blockage will help the agency manage water levels, and would benefit and inform analysis of future options for management (that have yet to be proposed) of the outflow of Spirit Lake. Because the tunnel, which was constructed in 1985, is the only outflow for Spirit Lake and because the tunnel is aging, the agency has an obligation to work with the Army Corps of Engineers to ensure the safety of downstream communities, should failure of the 34-year old tunnel occur.

The EA at 3-6 in section 1.3 Need for Action addresses the risk assessment and probability of an occurrence as well as the magnitude of the consequences. The debris blockage and need to characterize it (by conducting geotechnical drilling) is described in the EA at 4-5. Discussion of the need for geotechnical drilling and its connection to the tunnel infrastructure is documented in the EA at 3-5.

Appendix C – Summary of Public Comments, at 8-9, Theme 5 – Need for Action, A, states that “The Forest Service has not indicated the probability or likelihood of tunnel failure is “imminent.” However, the risk assessment considered both the probability of an occurrence, as well as, the magnitude of consequences.”

¹ The notation of “LP at 1” refers to the objector, Luan Pinson, and the page number of where this issue is found in their objection, in this instance, on pages 2-4. This same nomenclature applies to all citations for all of the objections.

² The Responsible Official at the time the draft DN was released was Acting Forest Supervisor Tom Torres; during the objection period, the new Forest Supervisor, Eric Veach began his tenure. The reference to the Responsible Official includes both the acting Forest Supervisor and the new Forest Supervisor.

³ The notation of FONSI at 2-3 refers to the document, in this case the FONSI, and the page number where the information is found. This same nomenclature applies to all citations for all of the objection responses.

In addition, in the USACE Memo: Status of Spirit Lake Outlet Tunnel Intake Gate Replacement and Debris Blocking Site Characterization at 1-6 (project record) describes the current condition and known issues with the gate and potential likelihood of a catastrophic failure and the need for further research and information. NASEM 2017 at 127-187 and Grant et al. 2017 describe gate conditions, tunnel conditions, and blockage conditions along with the risk of failure.

Objector Statement #2: Objector states that the EA failed to take a hard look at the actual risk of outflow failure and failed to provide a complete and transparent disclosure to the public of these risks, which objectors believe is overstated and is not an imminent emergency. SM at 1; LK at 1-2; SS at 6-7.

Response: I find that the Responsible Official adequately described the need for action in the draft DN, EA and FONSI. I find the Responsible Official appropriately provided rationale and weighed tradeoffs and considerations to arrive at a decision.

The regulation at 36 CFR 220.7(b)(2) states that an EA, "...must briefly describe the need for the project." Forest Service Handbook 1909.15, 43.21(2), decision and rationale, requires the decision-maker to discuss how the preceding considerations were weighed and balanced in arriving at the decision.

Nowhere in the EA is it implied that there is an "imminent" catastrophe. Instead, the FONSI at 2-3 explains that if a Spirit Lake outburst flood were to occur, it could result in a catastrophic event similar to the 1980s eruption (in terms of debris flows downstream). The draft DN at 2-3 describes how information was weighed to inform the decision. It states that, "The downstream communities depend on the Forest Service for safe management of the Spirit Lake water level and outflow. Currently, their safety relative to the stability of the debris blockage is built on assumptions, based on other assumptions, from 35-year old data. Citizens of these communities are living and working downstream from a poorly understood natural debris dam that utilizes a dated tunnel outlet infrastructure system that is subject to failure."

See the response to Objector Statement #1, which describes further analysis and information relevant to the analysis and decision.

Objector Statement #3: Objector states that the potential harm from failure of the Spirit Lake Access Tunnel is significant, thus requiring preparation of an Environmental Impact Statement (EIS). CFC at 5.

Response: I find that the Responsible Official appropriately assessed the potential of the project activities to have significant effects and documented the potential effects in an Environmental Assessment.

The regulation at 40 CFR 1500.4(q) instructs the Responsible Official to use a finding of no significant impact when an action not otherwise excluded will not have a significant effect on the human environment and is therefore exempt from requirements to prepare an environmental impact statement. The regulation at 40 CFR 1508.27 defines NEPA significance, stating that determination of significance for an action requires consideration of both context and intensity.

The EA at 27-71 summarizes the impact analyses and findings resulting from the action alternatives. The FONSI documents the context and intensity review of the proposed action, meeting the requirements of 40 CFR 1508.27. The EA at 3 discloses the Forest's consideration of the potential harm from failure as an

“increasing risk...which could lead to catastrophic failure”. See the response to Objector Statements #1 and #2 regarding the need for the action to gather more data to inform management decisions. The environmental analysis of the alternatives as summarized in the EA and presented in the FONSI did not identify potentially significant effects and as such, the Responsible Official determined that an Environmental Impact Statement need not be prepared. FONSI at 6.

Objector Statement #4: Objector states that the project failed to consider reasonable alternatives that would be less intrusive/impactful, including transporting large equipment via helicopter, and that work crews could use existing trails to access the site. Objectors believe a new alternative or a modification of Alternative C⁴ should be developed that completes the project without road construction in the Pumice Plain, and that the tunnel gate replacement and drilling⁵ should not have been combined. FK at 1 and 2; BK at 1; CC at 2; LB at 1; MN at 1; BO at 1; AK at 1; CM at 1; MI at 1; EM at 1; VB at 2; SM at 1 and 3; CEC at 1; NF at 1; DFS at 1; AO at 1; DJB at 2; AW at 2; SS at 2, 6 and 7; CFC at 8-9. Objectors also state that the condition of the debris avalanche block was assessed by the Colorado School of Mines Report via Ground Penetrating Radar, which negates the need for drilling cores. CFC at 9.

Response: I find that the Responsible Official evaluated a reasonable range of alternatives in the EA and that the alternatives considered, but eliminated from detailed study are adequately disclosed. The Responsible Official provided rationale for the selection of Alternative B in the draft DN.

The regulation at 36 CFR 220.7(b)(2) states that an EA “shall briefly describe the proposed action and alternative(s) that meet the need for action. No specific number of alternatives is required or prescribed.” The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed action and alternatives.

Appendix A of the EA describes how potential alternatives and options were evaluated and the rationale for why they were considered, but not carried forward as a component for one of the action alternatives. The EA at 25 and 26 provides a discussion of alternatives considered, but not included for further analysis. The EA at 25 states that Alternative C was modified to include recommendations from comments received during the comment period for the notice of proposed action. Criteria for the development of alternatives is also disclosed in the EA at 25. Access considerations are further disclosed in Appendix A, and in the draft DN at 6. The draft DN at 6 states the rationale for the selection of Alternative B, which includes the following statement “the 12 times increase in flight hours, safety exposure, and the added length of to complete the core drilling activities under alternative C make Alternative B the preferable option.” As initially disclosed in the notice of proposed action (NOPA) at 7, and again the EA at 21, the use of the Windy Ridge Road in Alternative B would “[w]here possible [follow] the temporary access road...currently known as the Truman Trail, used by the previous pumping and construction operations.” The EA at 2 displays Figures 2 and 3; photos from the early 1980’s of previous activity and disturbances including the access route prism. The temporary access route would utilize existing prisms where possible. Alternative C does not include the new construction of a temporary access route.

⁴ Multiple alternatives were suggested, including modifying Alternative C for the use of helicopters to transport equipment in and out of Duck Bay for gate replacement, with personnel traveling daily by UTV/boat to the intake structure, which avoids the road down Forsythe Creek; and an alternative that did not include geotechnical drilling, which is a totally separate action.

⁵ Objectors state that there is no urgency for the geotechnical drilling project, as the data gap associated with collecting the data regarding debris blockage was not prioritized over other data needs by the National Academy of Sciences.

The drilling operations and the gate replacement activities are combined in the analysis because they overlap in time and space (EA at 3). The activities would occur at the same time, and the need would be the same for both regarding access.

The EA at 5 describes the “continued and increasing need to perform risk mitigation actions on the tunnel system, debris blockage, and surrounding area to better understand and stabilize water containment and reduce to an acceptable level the risk of a debris blockage breach.” The necessity for drilling is to better understand the physical properties of the debris blockage is described in Appendix C at 9. See the responses to Objector Statements #1 and #2.

Objector Statement #5: Objector states that the significant environmental impacts of the project to both the flora, fauna, and 40 years of scientific research in the project area require an in-depth assessment, and that an Environmental Impact Statement should be prepared because multiple Finding of No Significant Impact (FONSI) factors are implicated (see subsequent objector statements), both in context and intensity. FK at 1; SD at 1; MA at 1 and 2; CC at 2; LB at 1; MN at 1; BO at 1; AK at 1; DDF at 1 and 2; CM at 1; MI at 1; AS at 1; EM at 1; DCL at 5; VB at 1 and 3; SM at 2 and 3; JH at 2; LK at 1; CEC at 1; NF at 2; IG at 1; DJG at 2; AW at 1 and 2; SS at 2, 3, 7-22; CFC at 5-8, 13-14.

Objector Statement #5a: FONSI Factor #3 – Impacts on Ecologically Critical Areas: objectors note that while this term is not a formal land use designation used by the agency, the international importance of the Pumice Plain and the Monument’s designation as a Class I Research Area highlight the uniqueness of the area.

Response: I find that the EA adequately describes the potential impacts to Ecologically Critical Areas, the land use designations, and the importance of the Pumice Plain and associated research. The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The EA at 8 cites the Gifford Pinchot National Forest Land and Resource Management Plan (LRMP) and the Mount St Helens National Volcanic Monument Comprehensive Management Plan (CMP), which set forth the direction for the project area. The uniqueness of the Monument is discussed in the EA at 27, section 3.1 Research, in terms of the importance of the area to researchers. The LRMP is cited again in the EA at 27 and describes the monument as “Category A” (LRMP page IV-99). Effects to research areas are described in the EA at 28-31.

In the response to comments, Appendix C at 4, Theme 3, A, the Forest noted that “While the pumice plain is an important early seral landscape in terms of research, it is not ecologically critical. No areas within the Mount St. Helens National Volcanic Monument were designated as ecologically critical within Public Law 97-243, the CMP, or the GPNF LRMP...”

Objector Statement #5b: FONSI Factor #3 – Impacts to wetlands: objectors state that the proposed road would pass through an expanse of wetlands that have not been delineated.

Response: I find that the Responsible Official appropriately identified potential wetlands via the U.S. Fish and Wildlife Service National Wetlands Inventory (Wetlands Mapper Tool), thus establishing a proper analysis of effects. The project was found to be consistent with applicable other laws, regulations and policies relevant to wetland protection.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects. The regulation at 40 CFR 1508.27(10) includes the intensity factor (10)(b) whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment to evaluate the potential for significant effects.

The EA at 54 describes that wetlands will be validated. If the site is validated as a jurisdictional wetland, a wetland mitigation plan will be prepared. Mitigation will be required (and adhered to) to offset impacts to wetlands during construction and will be coordinated with the State of Washington Department of Ecology and Seattle District for the U.S. Army Corps of Engineers, per section 401 and 404 compliance with the Clean Water Act. EA at 54.

Any new wetlands, streams, other surface water discovered or delineated during field visits in the summer 2020 will be documented and added to the Washington State Joint Aquatic Resources permit Application (JARPA, currently in process). This means that any additional wetlands that may be impacted would be added to the wetland mitigation plan. See the response to Objector Statement #14 regarding the Memorandum of Agreement requirements that guide the permit application.

Objector Statement #5c: FONSI Factor #4 – Impacts on research are highly scientifically controversial: objectors outline the significant impacts to numerous long-term studies as well as new studies that are starting or are being proposed. Objectors note that there would be impacts to studies that are evaluating the five new watersheds that formed on the Pumice Plain following the eruption, noting that if a road is built, the science that follows would not be able to differentiate between natural recovery and unnatural effects from the road, which would end all natural succession-related research on the Pumice Plain. Other research that would be impacted include studies on insect herbivory; studies on the role of nutrient limitation in mediating the interaction of plants and insects and of invasive and native species; studies on the natural processes that connect watershed regeneration to biological, hydrological and chemical changes in Spirit Lake; and studies on the genetic response of individual organisms subject to the stresses of volcanic disturbance. Additionally, objector states that the EAs unsubstantiated claim that the physical environment would return to pre-project conditions in 2-15 years was not supported by a single scientist and demonstrates a “gross misunderstanding about how ecological systems respond to disturbance.” Objectors also state that the project is highly scientifically controversial in that scientists directly contradict information in the EA and project record, and disagree with the Forest’s conclusion that the tunnel and debris blockage is in imminent risk of catastrophic failure. Objectors also state that it is controversial to take the public’s right to witness this unaltered landscape. Objectors believe that the millions of dollars in research that has been conducted over the past 40 years is significant to the science community and the public.

Response: I find that the Responsible Official appropriately considered impacts to scientific research. I also find that the draft DN, EA and FONSI adequately described the importance of the research projects at the Mount St. Helens National Volcanic Monument (Monument), and that the proposed action is consistent with the description of management within the Class 1 research area laid out in the Mount St. Helens National Volcanic Monument Comprehensive Management Plan (CMP). I also find that the Responsible Official appropriately provided rationale and weighed tradeoffs and considerations to arrive at a decision.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects. The Forest Service Handbook 1909.15, 43.21(2), decision and rationale, requires the decision-maker to discuss how the preceding considerations were weighed and balanced in arriving at the decision.

The CMP for the Monument details the management actions and protections for Class 1 Research Areas. The CMP at 13 states that within Class 1 Research Areas “The Monument Manager uses regulations, closures, and permits to protect sensitive features and processes and to control the introduction and removal of organisms...” In Appendix C of the CMP, the goal for the protection of Class 1 Research Areas is to “Provide maximum opportunity for natural processes and features to continue unimpeded in the most sensitive areas.” In Appendix C of the CMP, the “Prescriptions” for Class 1 Research Areas include: “Strictly regulate the use of developed sites and trails. This will be done by means of access route location and education; in areas of extreme sensitivity, entry may be prohibited except by permit.” The CMP does not state that research plots within Class 1 Research Areas would not be subject to disturbance by human activities (including management).

The EA at 10 identified impacts to current and future research as a Key Issue. The EA at 27-31 (Section 3.1 Research) analyzed the impacts to individual research plots that may occur as a result of implementing the action alternatives. The FONSI intensity criteria 3, 8 and 10 summarized findings of impacts to research in the EA. The draft DN at 1-3 provided rationale and consideration of the findings in light of these Key Issues.

Nowhere in the EA is it implied that there is an “imminent” catastrophe. Instead, the FONSI at 2-3 explains that if a Spirit Lake outburst flood were to occur, it could result in a catastrophic event similar to the 1980s eruption that caused a massive debris flow that impacted downstream communities. As noted in the FONSI and EA at 3-6, the tunnel has experienced periodic fracturing of its lining and uplifting of the tunnel floor.

As for returning to the temporary road to pre-project conditions, the EA at 20 and the draft DN at 16 require that after the project is completed, the road should be restored to pre-project condition to the maximum extent possible and not be accessible to motorized vehicles.

The vast majority of the Monument will remain unaltered. As described in the draft DN at 4, the majority of the Pumice Plain (96%) will remain unaltered. Visually, the impacts from the temporary access route would be from visitors to the Windy Ridge viewing platform and interpretive site, and would primarily be seen in the middleground (draft DN at 4). The EA at 34-35 and draft DN at 4 both note that the temporary access route along the Truman Trail will impact visitors in the short-term and impacts would last until the access route was rehabilitated.

Impacts to research were fully considered in the EA at 27-31. The response to comments notes that a cost-benefit analysis is not required. EA Appendix C at 17. The Responsible Official considered the importance of and impacts to research in the draft decision at 1 and 2.

The response to Objector Statements #1 and #2 describes further analysis and information relevant to the purpose and need, as well as how the Responsible Official weighed the risk of tunnel failure against potential impacts.

Objector Statement #5d: FONSI Factor #5 – Impacts are uncertain or involve unique/unknown risks: objectors state that the EA “is replete with admissions that much is unknown about the project planning area and the Pumice Plain in general,” including unknown risks because of the potential to spread the invasive New Zealand mud snail; highly uncertain effects to scientific research; and uncertain/unknown effects to wetlands that the Forest failed to inventory and disclose.

Response: I find that the Responsible Official appropriately described the risks to the environment and ongoing research projects.

The regulation at 40 CFR 1508.27(b)(5) describes the intensity factor as “The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks to assess the potential for significant effects.”

In the FONSI at 4, it states that project activities are similar in scope and scale to actions implemented in other areas of the National Forest System, which include reconstruction of existing National Forest System roadways, construction of temporary access routes, construction and use of staging areas, geotechnical investigation and core sampling, as well as stabilization and rehabilitation. The selected alternative does not include any unusual management actions, as the proposed actions are similar to previous temporary road building and drilling projects on the Gifford Pinchot National Forest, Mount St. Helens National Volcanic Monument, and elsewhere in the Pacific Northwest.

The Project Design Criteria for invasive species and wetland protection are in place and are documented in the EA at Table 1, and in the aquatics specialist reports. The New Zealand mud snail decontamination plan follows the guidance set forth by the State of Washington. As discussed during the objection resolution meeting, the decontamination plan outlined in the project design criteria for the project will be further articulated in the final decision.

Objector Statement #5e: FONSI Factor #6 – Precedent setting action: objectors state that it is disingenuous to call the proposed road temporary when the Forest is reviewing “alternative redundant outflows for Spirit Lake, including a second tunnel, a buried conduit, a pumped buried conduit and an open channel, all of which would require access for heavy equipment and personnel.” Objectors believe when the project is complete, the Forest will claim that since the road is present, it will continue to be used to implement the redundant outflow decision without further environmental review. Objectors also believe that the precedent-setting nature of road construction across an active volcano may be the first in a series of actions that “lead to dramatic changes in the Pumice Plain’s ecology and human use.”

Response: I find that the Responsible Official appropriately established the scope for this project and determined that these actions do not set a precedent.

The regulation at 36 CFR 220.7(b)(1) requires that an EA must briefly describe the need for the project. The guidance at Forest Service Handbook (FSH) 1909.15, 41.21(1) states that need for action discusses the relationship between the desired condition and the existing condition in order to answer the question, “Why consider taking any action?” The breadth or narrowness of the need for action has a substantial influence in the scope of the subsequent analysis. The regulation at 40 CFR 1508.27(b)(6) requires the agency to analyze the “...degree to which the action may establish a precedent for future actions...”

The EA at 6 establishes the scope of the project, which is specified by the project's need to obtain geotechnical subsurface drilling data and to replace the tunnel intake gate structure. The action alternatives (EA at 14) include actions designed to meet this need, including the reconstruction and use of a temporary road, which is described using the definition from the Travel Management Regulations found at 36 CFR 212. The EA at 20 requires restoration of the temporary road to pre-project condition after the project is completed. The temporary road would utilize existing prisms where possible and would be utilized for the purposes of this need only. The proposed action does not include adding the alignment of the temporary road to the National Forest System road database.

In both the FONSI and Appendix C it is stated that this project does not set a precedent for other projects and that any future federal actions will be evaluated through the National Environmental Policy Act (NEPA), if applicable, and will be approved through separate decisions. Appendix C at 3; FONSI at 5.

Objector Statement #5f: FONSI Factor #7 – Significant cumulative effects: objectors state that the EA is silent about the ultimate purpose of the data collected from the proposed geotechnical drilling, which they state will be used for future project design and development. Objectors state these future projects are connected actions with cumulative effects.

Response: I find that the Responsible Official appropriately established the scope for this project.

The regulation at 40 CFR 1508.25(a)(1) defines connected actions, noting that connected actions are those that automatically trigger other actions, cannot or will not proceed unless other actions are taken, or are interdependent parts of a larger action and depend on the larger action for their justification. The regulation at 40 CFR 1508.7 defines cumulative impacts (effects) as the impact on the environment that results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other action.

The response to Objector Statement #5e addresses the scope of the need for action. The FONSI at 5 describes that there may be a future proposal, which would require its own environmental review and analysis process and that while the geotechnical drilling may inform future potential proposed actions, it is related to the current proposal and the regulation of lake levels. The EA at 4 states that analysis of future potential actions cannot occur at this time because the agency does not have enough information to know what those future potential actions could be. The response to Objector Statement #19 addresses the analysis of cumulative effects. The cumulative effects analysis documented in the EA at 27-71 considered reasonably foreseeable future actions as defined by 36 CFR 220.3.

Objector Statement #5g: FONSI Factor #8 – Adverse impacts to significant scientific, cultural or historical resources: objectors state that the research that occurs at Mount St. Helens takes place nowhere else in the world and that dozens of plots will be destroyed and numerous studies will be confounded, which compromises the viability of these studies. Objectors also note that in 2013, 12,501 acres of the Monument were listed on the National Register of Historic Places and that the location of the access route has the possibility of causing visual impacts and adversely affecting the listing.

Response: I find that the Responsible Official appropriately considered impacts to scientific research, visual resources, and to cultural and historical resources. The Responsible Official's ongoing consultation with the State Historic Preservation Office (SHPO) and Native American governments is consistent with applicable law, regulations and policies.

The regulation at 40 CFR 1508.27(b) requires an assessment of the degree to which the action may adversely affect unique characteristics of the geographic area; an assessment of the degree to which the action may adversely affect objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources; and an assessment of whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The EA at 10 identified impacts to current and future research, and to visual and recreation resources as Key Issues. The EA at 27-31 (Section 3.1 Research) analyzed the impacts to individual research plots of the alternatives. The EA at 31-41 (Section 3.2 Visual Resources) analyzed the impacts to visual quality objectives from the alternatives. The FONSI at Factors 3, 8 and 10 summarized findings of no significant impacts to research in the EA. The draft DN at 1-3 provided rationale and consideration of the findings in light of these Key Issues. See the response to Objector Statement #21 regarding the impacts to visual resources.

The EA at 68-69 describes the ongoing consultation with SHPO in compliance with the NHPA and with Tribal consultation. It states that in September 2013, an area above the tree line on Mount St. Helens, known by the Tribal name Lawetlat'la, was listed on the National Register of Historic Places as a Traditional Cultural Property. The boundary of the designated area is defined by the Loowit Trail 216, and it encompasses a total area of 12,501 acres (Lawetlat'la Traditional Cultural Property Memorandum of Understanding 2018). Following the National Register of Historic Places listing, the Forest Service and the Cowlitz Indian Tribe recognized and developed a memorandum of understanding that describes the formal, government-to-government relationship between the agency and the Cowlitz Indian Tribe in the context of managing Lawetlat'la.

The FONSI at 5 describes the determination of effects regarding impacts to the Lawetlat'la Traditional Cultural Property as adverse based on continued government-to-government consultation. However, the impacts to the Lawetlat'la Traditional Cultural Property are not expected to be significant because there are no direct impacts to the Traditional Cultural Property since its boundary does not overlap with the project area. Anticipated indirect effects, disclosed in the EA section 3.10, are short term in nature and will apply only until implementation is accomplished, personnel and equipment are removed, and restoration of disturbed areas is completed.

Objector Statement #5h: FONSI Factor #9 – Impacts to fish listed under the Endangered Species Act (ESA): objectors state that the project could impact Lower Columbia River steelhead in Spirit Lake and that the Forest has not consulted with the National Marine Fisheries Service (NMFS) about potential impacts from the project.

Response: I find that the Responsible Official has adequately considered the potential impacts to fish listed under the ESA.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The EA at 56 states there are currently no federally listed threatened or endangered aquatic species, designated critical habitat, or proposed critical habitat occurring within the project area, therefore there will be no effect from any of the alternatives to ESA-listed fish species or any designated critical habitat.

The draft DN at 28 states that the Forest Service is aware and understands a DNA investigation is currently ongoing to determine the Spirit Lake rainbow trout species origin. This DNA study is still in its infancy and implementation of the proposed project will likely occur before peer review and a determination has been made. On March 25, 2020, the Forest Service sent a letter to the National Oceanic Atmosphere Administration NFMS notifying them that the project area contains no federally proposed or listed threatened or endangered fish species, and that the USFS is pursuing a DNA analysis to determine the origin of the rainbow trout in Spirit Lake.

Objector Statement #5i: FONSI Factor #10 – Violation of other laws or requirements to protect the environment: objectors state that the project violates NEPA, NFMA, the Northwest Forest Plan, other laws, and the Comprehensive Management Plan for the Monument.

Response: I find that that Responsible Official appropriately evaluated consistency with NEPA FONSI factor 10, which asks whether or not the action threatens protection of the environment or threatens the violation of Federal, State, local laws, or requirements. I find that the analysis of the proposed alternatives and resulting FONSI and draft DN do not threaten any violations to law regulation or policy, nor threaten the protection of the environment.

The regulations at 40 CFR 1500 – 1508 applicable to the development of environmental assessments have been followed in the development of the environmental assessment for this project.

Consistency determinations (documenting the analysis and project’s consistency with law, regulation, and policy) are disclosed in the following locations:

- Draft DN at 6: compliance with Public Law 97-243; the enabling legislation requiring the Monument to be managed by the USDA Forest Service, Gifford Pinchot National Forest;
- Draft DN at 7 and 8: compliance with the Comprehensive Management Plan for the Monument as part of the Gifford Pinchot’s National Forest Land and Resource Management Plan, as amended by the Northwest Forest Plan;
- Draft DN at 9: compliance with Forest Service Manual direction 2880;
- Draft DN at 23: disclosure of consultation with Tribal Governments;
- Section 4 of the draft DN at 23, 24, 25, and 26: compliance with the Comprehensive Management Plan for the Monument as part of the Gifford Pinchot’s National Forest Land and Resource Management Plan, as amended by the Northwest Forest Plan;
- Section 5 of the draft DN at 26, 27, 28, and 29: disclosure of compliance with the National Forest Management Act and the Northwest Forest Plan (Survey and Manage, Aquatic Conservation Strategy, Pacific Northwest Invasive Plant Program, Sensitive Species), National Historic Preservation Act, Endangered Species Act, Clean Water Act (section 303(d)), Executive Order 11988 Floodplains, Executive Order 11990 Wetlands, Executive Order 12898 Environmental Justice, Executive Order 13112 Invasive Species, and Executive Order 13186 – Migratory Birds.

These consistency determinations are further supported by the analysis disclosed in the EA and Appendices and in the associated specialist input write-ups.

Objector Statement #6: Objectors state that the draft decision/FONSI failed to address both context and intensity of the proposed action, and compares the impacts of this project to natural events, such as volcanic activity, instead of comparing the impacts to other human-caused events. SM at 2; SS at 2, 3, 8, 18, 19 and 22.

Response: I find that the effects analysis in the EA described the difference in potential sediment generated from the project compared with background and other natural processes (including rain on snow events), in that sediment generated from the project would occur typically during the dry season rather than during the winter and spring (when natural increases in sediment occur). I also find that the FONSI appropriately considered impacts that naturally occur, including erosion from volcanic activity.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The EA at 53-56 and Final Hydrology Report at 12-13 describes the potential for sediment delivery from the temporary access road and dredging activities. The EA at 53 describes the process of natural sediment delivery from streams that comes from trails and the old road bed. The Final Hydrology Report at 2 in the Project Record describes the existing condition, documenting that “Transported sediment coming off of the NNE flank side of Mount St Helens with numerous channels empty into Spirit Lake creating alluvial fans and deltaic deposits beneath the surface water of the lake. The amount of sediment load transported into Spirit Lake is substantial. Using Google Earth historical imagery, from 1994 to 2018, alluvial fans grew 350 feet (south of old pumping station near Harry’s Ridge) to as much as 550 feet (north end of Duck Bay). With heavy sediment load, it is likely to see high turbidity during periods of high flows from eroding channels, mass wasting, or other disturbances as streams enter Spirit Lake forming alluvial fans and subsurface deposits.” The EA at 53 specifically discloses that the amount of sediment delivery to Spirit Lake from the proposed access road would be limited due to project design criteria and known best management practices.

The FONSI at 1 states that “The selected alternative activities will have impacts that are smaller in scale to what occurs during periods of volcanic activity, elevated runoff, increased streamflow from precipitation, and rain on snow events.” The rationale of comparing the project’s activities to natural events is that the project areas is “largely undisturbed” although there is evidence of human activity within the project area, particularly from the old access road, as it remains visible today, even from a distance. FONSI at 1.

Objector Statement #7: Objector states that the Forest failed to acknowledge the significance of the Monument’s values and failed to acknowledge the Forest’s responsibility for stewardship of those other values. SS at 3. Objector states that the Forest has not framed the need for action as protecting downstream communities and preserving Monument values. SS at 3.

Response: I find that the Responsible Official appropriately established the need for action in the EA. The potential impacts to the Monument from the proposed project are documented throughout the EA. In the decision rationale, the Responsible Official balanced considerations to support the selection of Alternative B.

The regulation at 40 CFR 1508.27(b) requires that the Responsible Official determine significance in terms of context and intensity. The regulation at 36 CFR 220.7(b)(2) states that an EA, "...must briefly describe the need for the project." The Forest Service Handbook 1909.15, 43.21(2), decision and rationale, guides the decision-maker to discuss how the preceding considerations were weighed and balanced in arriving at the decision. The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The EA at 3, Need for Action, describes the need for the Alternatives considered by the EA. The assertions brought forward by the Objector were considered in EA Appendix C at 17, E. The Response addressed these concerns when it outlined the consultations, the consideration of concerns, and the review of studies and literature that informed the analysis of the Action Alternatives in the EA and the draft Decision. In the draft Decision Notice at 1-3, the Responsible Official describes the rationale for the decision in the context of the Monument's value, and with the need to protect public health and safety. The EA at 7-8, the FONSI at 3 and 6, and the draft DN at 6-7 review and affirm the Compliance of the project with Public Law 97-243, Forest Plan and Comprehensive Management Plan, and Forest Manual 2880.

Objector Statement #8: Objectors also state that the agency made other misleading comparisons by stating that the creation of the access route would have minimal disturbance relative to the disturbance from initial road construction in the 1980s, and ignores the fact that the ground is different now than it was in the 1980s. SS at 19.

Response: I find that the Responsible Official properly analyzed impacts associated with development of the temporary access route.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The EA described the activities that would occur during construction of the access route, noting that "Construction of temporary roads would include new materials, road building activities, stream crossings, drainage features, and other road structures to support safe access by equipment. The temporary access road would be a single lane road with intervisible turnouts and periodic turnarounds. The road surface would generally be 16 feet wide. Some horizontal curves would require curve widening to allow passage of a truck with a lowboy trailer. Resource specialists considered a corridor for ground disturbance limits typically of 33 to 100 feet from the proposed centerline of the temporary access road alignment. See alternatives B and C for locations. Only a portion of the disturbance limits corridor would actually experience ground disturbance. The final temporary access road alignment could be adjusted within the disturbance limits corridor to avoid or limit impacts to sensitive features. Seasonal maintenance may be necessary." EA at 15. Disturbance that is predicted to occur from reconstructing the old access route is documented throughout the EA, which notes that soil recovery would be delayed in areas where the temporary access route is constructed. EA at 49-50.

See also the responses to Objector Statements #14, #23 and #25, which address how impacts from the temporary access route were analyzed.

Objector Statement #9: Objectors state that the Forest failed to allow for meaningful comment and failed to address many of the comments that were made on the EA. DCL at 1; SS at 3; CFC at 11. Specifically, objectors state that the following responses to comments were inadequate or inaccurate:

Objector Statement #9a: Appendix C, page 7 – Objector states that the EAs response regarding the research community working group was inappropriate, given the working group met once and the meeting was informational. Objector also notes that the responses to the questionnaire on impacts to their researcher programs were never discussed and no attempt to mitigate damage to research programs has been made. DCL at 1 and 2; SS at 15; CFC at 6.

Response: I find that the Responsible Official and staff at the Forest and District level engaged with the research and scientific community.

The regulations at 40 CFR 1501.7 and 1506.6 set requirements for the participation of the public and affected federal, state, and local agencies, any affected Indian tribe, the proponent of the action, and other interested persons (including those who might not be in accord with the action on environmental grounds).

Engagement with the research and scientific community was executed in numerous ways as outlined in the EA at 73-74 and Appendix C, at 7, D – List of communications with scientists. Engagement included weekly Deputy Regional Forester and Research Station Director Updates, monthly coordination calls with the Research Station’s Land and Watershed Management Program, a research ecologist from the Pacific Northwest Research Station was imbedded into the Interdisciplinary Team, and a working group within the research community that supported communication between the Forest Service and the research group was formed. See also Appendix C at 17.

The EA at 27-31 includes effects to research within the Monument, and the EA at 17-21, Table 1 includes Project Design Criteria to mitigate and minimize the effect on research and the environment.

The Research Scientist Questionnaire in the project record was sent to 21 researchers. Researchers submitted 11 completed questionnaires to the Forest that described potential impacts to researcher’s projects and associated sites along with any suggested mitigations from researchers. The record indicates that the answers to the questionnaire were summarized. The Responsible Official has reviewed the results of the questionnaire and has considered all of the information the researchers provided.

Objector Statement #9b: Appendix C, page 16 – Objector states that the EA’s response to their comment regarding impacts from building the road to the Pumice Plain and to ongoing research was not appropriately addressed. The road will cause harm to the successional development of aquatic communities and ecosystems in the watersheds on the Pumice Plain. It will negatively impact research and the ability to explore in-stream primary succession and this specific issue is not addressed by the agency in any way. DCL at 2; VB at 2.

Response: I find that the Responsible Official considered comments submitted on the EA. Impacts from the alternatives were disclosed. An adequate range of alternatives was considered and the Responsible Official weighed environmental and social tradeoffs and considerations to arrive at a draft decision.

The regulation at 36 CFR 218.25(b)(1) requires that the Responsible Official consider comments submitted on an EA. The Forest Service Handbook 1909.15, 43.21(2), decision and rationale, requires

the decision-maker to discuss how the preceding considerations were weighed and balanced in arriving at the decision. The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The draft DN at 1-3 describes the Responsible Official's rationale for the selection of Alternative B, addressing the tradeoffs that were considered. Appendix C Summary of Public Comments at 16 considered input from the public "that building a road across the Pumice Plain would irreparably harm the development of these watersheds and negatively impact research and the ability to explore in-stream primary succession." Appendix A, Alternatives Considered but Eliminated from Detailed Study at 4, 5, 7, 9 documented consideration of alternatives that would result in fewer impacts to research plots or to the Pumice Plain. In addition, Alternative C was fully considered, which results in fewer impacts to the Pumice Plain. Draft DN at 20; EA at 23.

The EA at 15 lists the project design and best management practices that would be used for the temporary access road crossing construction and use in order to minimize impacts to the Pumice Plain and the research plots. Project design criteria that would minimize impacts to riparian resources and the Pumice Plain are outlined in the EA at Table 1. The EA at 53-54 disclosed direct and indirect effects to hydrological resources related to the proposed temporary access road under Alternative B (including sedimentation into riparian vegetation and channel crossings); such effects were disclosed for Alternative C in the EA at 55-56. Effects to aquatic species are described in the EA 57-58; FONSI at 3; the Hydrology Report; and Aquatic Species Report at 4-5.

The EA at 27-31 discloses and compares direct, indirect, and cumulative impacts from the alternatives to research studies and plots. For both action alternatives, the EA documents that "Plots related to botanical species and natural succession could be impacted for a longer period of time (estimated up to 15 years). Some impacted plots may not be utilized again and would no longer contribute to their corresponding study. If plots are used again for research, their disturbance history will differ from plots outside the project area and their developmental pathways (successional trajectories) may differ in subtle or unpredictable ways." EA at 28 and 29. As noted above, the Responsible Official has reviewed the results of the questionnaire and has considered all of the information the researchers provided.

The responses to Objector Statements #14, #18, #23 and #25 also address how impacts from the temporary access route were analyzed.

Objector Statement #9c: Appendix C, page 19 – Objector states that the response to the comment on invasive aquatic and botanical species using level 2 decontamination protocols is not feasible. Specifically, objector states that the Level 2 decontamination protocols for New Zealand mud snails will not work because there is no way to treat tracked vehicles or remove the tires from vehicles for the required treatment, and that surveys in May of 2020 found New Zealand mud snails within several meters of the Truman Trail. DCL at 2 and 3; CFC at 6.

Response: I find that the Responsible Official addressed concerns related to invasive species through the utilization of the best available science and established methods for control of invasive species.

The regulation at 36 CFR 218.25(b)(1) requires that the Responsible Official consider comments submitted on an EA. The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the

environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

Analysis and project design criteria addressing the New Zealand mud snails were presented in the following locations: the EA at 18 Table 1; the Botany with Invasive Risk Assessment Sources Input at 9 Table 1; the EA at 58 Aquatics Effects; the Aquatic Species specialist report at 5-6.

As documented in the response to Objector Statement #5d, the New Zealand mud snail decontamination plan follows the guidance set forth by the State of Washington. As documented during the objection resolution meeting, the decontamination plan outlined in the PDC's/mitigation plans for the project will be further articulated in the final decision, particularly with regard to larger equipment.

Objector Statement #9d: Appendix C, page 22 – Objector states that the response to illegal activities does not recognize that the Forest is “severely limited in its ability to patrol and cite visitors at the present time” let alone after the proposed road increases accessibility. DCL at 3.

Response: I find that the Responsible Official addressed public access concerns in both the EA and in Appendix C.

The regulation at 36 CFR 218.25(b)(1) requires that the Responsible Official consider comments submitted on an EA.

The EA at 16 addresses public access and states that the Truman Trail will be administratively closed or partially closed to the public during implementation of the project. In addition, Appendix C at 22, Theme 5 - Recreation (use) documents that the Forest Service will continue to patrol and issue citations for illegal use.

Objector Statement #9e: Appendix C, page 24 – Objector states that the Forest did not address the comment regarding impacts to streams and riparian areas caused by multiple, daily vehicle trips, estimated to be over 3,500 passes per season. Objector states that the EA did not discuss or outline how each stream crossing will be protected from thousands of trips per year or how removal of riparian vegetation would alter algal productivity and macroinvertebrate communities. Objector notes that Forest Service guidance for off-highway vehicles recommends avoiding stream crossings because of the environmental impacts it causes, but that this project is specifically encouraging this activity. DCL at 3; SS at 17.

Response: I find that the Responsible Official fully disclosed potential impacts to streams from motorized vehicle use.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The EA disclosed the effects of vehicle traffic on sediment delivery and the potential effects of increased sediment delivery. EA at 51 and 53-54. Design features included in the EA Table 1 at 17 requires that for all tasks involving work “that will use, divert, obstruct or change natural flow, bed or banks of any perennial or intermittent water body” the agency will utilize the design and implementation standards in Appendix A of the Washington Department of Fish and Wildlife and U.S. Forest Service Memorandum of Understanding (Forest Service Agreement No. 17-MU-11062754-049 (project record)). The specialist

input for hydrology resources also notes adhering to Best Management Practices (BMPs) will also be required during project implementation. Hydrology Report at 12.

As for OHV use, the citations to agency policy about mudding and avoiding stream crossings and wet areas that were included by the objector apply to unrestricted OHV use by the public. The construction and use of the temporary access route is considered administrative use by the agency. The Forest is not “encouraging” mudding or travel off of the authorized access route, as noted in the response to Objector Statement #9d.

Objector Statement #9f: Appendix C, page 24 – Objector states that the response to comments for Appendix B states that there will be no crossings of wetlands, as defined by the Clean Water Act Section 404, but that the wetlands mapper tool used is “not at a fine-enough scale to capture the small wetlands that are present” along and below the Truman Trail. Objector states that the Forest needs to allow time for Washington State employees to inventory and survey wetlands that would be impacted along the proposed route in order to ensure that the Forest does not violate the Clean Water Act or the state’s Water Pollution Control Act. DCL at 5; NF at 1; DFS at 1; DJB at 2; SS at 9; CFC at 6 and 11.

Response: I find that the Responsible Official identified potential wetlands via U.S. Fish and Wildlife Service National Wetlands Inventory (Wetlands Mapper Tool).

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects. The regulation at 40 CFR 1508.27(b)(10) requires consideration of “whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment to evaluate the potential for significant effects.”

The EA at 54 describes that wetlands will be validated. If the site is validated as a jurisdictional wetland, a wetland mitigation plan will be prepared. Mitigation will be required (and adhered to) to offset impacts to wetlands during construction and will be coordinated with the State of Washington Department of Ecology and Seattle District for the U.S. Army Corps of Engineers, per section 401 and 404 compliance with the Clean Water Act.

Any new wetlands, streams, other surface water discovered or delineated during field visits in summer 2020 will be documented and added to the Washington State Joint Aquatic Resources permit Application (currently in process); see also the response to Objector Statement #5b and #14.

Objector Statement #9g: Objector states that they commented on how scheduling the combined scoping/comment period over the winter holidays and limiting outreach to the communities of Longview and Vancouver limited public comment and circumvented opposition to a highly controversial decision, but that the Forest’s response was to recite regulation without explanation of the rationale for the timing/outreach. Objector requests a meaningful response to their comment beyond citation of the regulations. SS at 3.

Response: I find that the Forest’s public involvement process for this project complies with law, regulation, and policy, and that the Forest did not limit outreach to the communities of Longview and Vancouver.

The regulation at 36 CFR 218.25 provides the requirements for public involvement for an EA. Forest Service Handbook 1909.15 Chapter 11 provides more information regarding agency policy for scoping and public involvement procedures.

There are no requirements to consider weather or seasonal conditions when initiating comment periods. The Forest provided information regarding the proposed action and alternatives, a description of the need for the project, and information regarding preliminary issues and effects (NOPA at 9). The Forest offered the NOPA with a 30-day comment period for the project. In addition to the notification in the newspaper of record and the public-facing project website, the Forest notified interested parties via mail and email. Interested parties that were notified included groups and individuals that have been previously involved in other Spirit Lake projects, and groups and individuals from the research community. The Forest included individuals and groups who expressed interest in activities on the Monument. In addition, the Forest developed a public outreach plan that involved social media and newspaper outreach efforts, which is located in the project record. In addition, the draft DN at 22-23 summarized the public involvement process.

Objector Statement #9h: Objector commented that the congressional intent in creation of the Monument included research as a primary purpose, and that the Monument is an ecologically critical area. Objector believes that the Forest's response that Congress didn't designate any areas as ecologically critical ignores congressional intent and fails to protect the Pumice Plain. SS at 3-5.

Response: I find that the Responsible Official complied with Public Law 97-243, which is the enabling legislation for the Monument. The draft decision balances the necessity to "ensure public safety and prevent loss of life and property," and to also ensure the perpetuation of scientific research studies.

The regulation at 40 CFR 1508.27(b)(10) requires consideration of "whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment to evaluate the potential for significant effects."

The EA at 7-8 includes sections of the law that speak to management of the Monument to protect the geologic, ecologic, and cultural resources along with other actions the Secretary may take.

The Monument Act includes Section 4(c) "The Secretary shall permit the full use of the Monument for scientific study and research..." but also includes the Section 4(b)(3) that states "Nothing in this Act shall prohibit the Secretary from undertaking or permitting those measures within the Monument reasonably necessary to ensure public safety and prevent loss of life and property."

In the response to comments, Appendix C at 4-6 documents the importance of the Pumice Plain in terms of research. Appendix C at 17-18 also documents that "The use of the Monument for scientific study and research, with restrictions as may be necessary to protect public health and safety, is inherent to the original purposes of the Monument's congressional formation." The EA at 27-31 recognizes research and the effects to research from the project. The FONSI at 2-4 recognizes the designation of the Class 1 Research Area and the importance of the Pumice Plain for research.

Objector Statement #9i: Objectors state that Forest failed to respond meaningfully to their comment that the draft decision and EA failed to consider the emergency clause in the Monument Act in historical context when used as a justification for the proposed action, noting that the Act limits these actions to situations where they are "reasonably necessary" or related to an emergency. SS at 3-5.

Response: I find that the Responsible Official appropriately considered the language in the Mount St. Helens National Volcanic Monument in 1982 (Public Law 97-243).

The allowance for motorized vehicles pertains to “other essential administrative services, including those provided by State and local governments, or when necessary, for authorized scientific research.” Clearly this action is considered as an essential administrative use, as documented in the need for action to “ensure the protection of public safety, health, property, and the environment from a catastrophic breach of the Spirit Lake natural debris blockage caused by the 1980 debris avalanche. Currently there is inadequate data to inform risk management decisions and an increasing risk of failure of the existing outlet infrastructure (tunnel intake gate system), which could lead to a catastrophic failure of the debris blockage.” EA at 3. The core samples obtained in this project will provide both the Forest Service and the Army Corps of Engineers information about the geologic and groundwater characteristics of the debris blockage area (thus addressing the need about inadequate existing data), which will inform the Spirit Lake Emergency Response Plan and other risk management decisions. EA at 4-7.

Objector Statement #9j: Objectors state that the Forest failed to meaningfully respond to their comment regarding the framing of the need for action, which they state downplays the significance and value of research, while presenting the situation as an imminent emergency and threat to downstream communities. SS at 5.

Response: I find that the Responsible Official appropriately framed the need for action and considered comments submitted on the EA. An adequate range of alternatives was considered and impacts from the alternatives were disclosed. I find the Responsible Official weighed the tradeoffs documented in the EA to arrive at a decision.

The regulation at 36 CFR 218.25(b)(1) requires that the Responsible Official consider comments submitted on an EA. Forest Service Handbook 1909.15, 43.21(2), decision and rationale, requires the decision-maker to discuss how the preceding considerations were weighed and balanced in arriving at the decision.

The EA at 3-6 set the need and context for the project and includes both the scientific and safety aspects. The EA at 7 and 27-30 recognized the ecological, scientific and safety importance of the Monument both locally and internationally. The EA at 10 includes current and future research as a Key Issue. Alternative C was considered in detail to respond to this Key Issue and to address concerns raised by the research community. The FONSI at 2-4 evaluated findings related to safety and unique characteristics associated with the Monument.

The draft DN at 1-3 describes the Responsible Official’s rationale for the selection of Alternative B, addressing the tradeoffs that were considered. Appendix C, Summary of Public Comments at 4, 7, and 16-18 considered input regarding the value of research at the Monument. Appendix A, Alternatives Considered but Eliminated from Detailed Study at 4, 5, 7, 9 considered alternatives that would result in fewer impacts to research plots or to the Pumice Plain, and documented the reason they were not carried forward for further analysis.

Objector Statement #9k: Objectors state that the Forest failed to meaningfully respond to their request to develop alternatives that have the least impact on the Pumice Plain and ongoing scientific research,

including impacts to a research project supported by a grant from the Washington Native Plant Society. SS at 5.

Response: I find that there is a reasonable range of alternatives proposed in the EA and that the alternatives considered, but eliminated from detailed study are adequately disclosed. Alternative C provided a comparison to Alternative B with heavier reliance on helicopter and watercraft use, and less use of the Pumice Plain. The draft Decision Notice includes the rationale for the selection of Alternative B.

The regulation at 36 CFR 220.7(b)(2) states that an EA “shall briefly describe the proposed action and alternative(s) that meet the need for action. No specific number of alternatives is required or prescribed.” The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed action and alternatives.

The EA at 23 describes Alternative C: Windy Ridge to Duck Bay (Intake Gate) and Helicopter Use (Geotechnical Drilling). The EA at 25-26 summarizes Alternatives Considered but Eliminated from Detailed Analysis. Appendix A, Alternatives Considered but Eliminated, and was developed to describe how the potential alternatives and options were evaluated and the rationale for why they were considered, but not carried forward as a component for one of the action alternatives. See EA Appendix A at 1.

Appendix C at 13 and 14 provide a description of the consideration of comments regarding alternatives that would not include the use of a temporary access road, or alternatives that would modify the access route. It was determined that the use of a helicopter-only approach would not be feasible (Appendix C at 13, Appendix A at 4 and 5). It was found that the use of a helicopter for drilling may be feasible, but not for the gate replacement project (Appendix A at 5). In the development and consideration of alternatives, the Forest “spoke with members of the research community and previous objectors” (Appendix A at 1) to develop a reasonable and feasible suite of alternatives.

Analysis through the EA at 27-69 compares environmental effects between the alternatives. The draft DN at 1-3 describes the decision rationale while comparing the design and effects of the alternatives. The draft DN at 3-6 compared how the alternatives were responsive to Key Issues. See also the response to Objector Statement #4 regarding a reasonable range of alternatives.

Objector Statement #9I: Objector states that the Forest failed to respond to their comment regarding the need for preparing an EIS, and that the Forest’s response that the project did not fit into a category of action that required an EIS did not recognize that the need for an EIS is not limited to the list of examples given. Objectors state that the Forest also did not respond to their comments that noted examples where impacts were significant. CFC at 11-12.

Response: I find that the analysis documented in the EA and appendices supports the Finding of No Significant Impact, and therefore an Environmental Impact Statement is not required. I find that the Forest complied law, regulation, and policy for the consideration of public comments from the 30-day day NOPA comment period, and the draft DN/FONSI objection filing period. I also find that the Forest’s documentation of the analysis for this project in an EA accompanied by a DN and FONSI is appropriate and commensurate with the degree of impacts documented in the EA.

The regulation at 36 CFR 218.25(b)(1) requires that the Responsible Official consider comments submitted on an EA. The regulation at 30 CFR 220.7(a) establishes the framework for applicability of an Environmental Assessment. The regulation at 36 CFR 220.5(a) describes classes of actions that normally require an EIS.

All key issues, and considerations of public comments were evaluated (EA Appendix A and C; EA at 8, 9, 10; and the draft DN at 3, 4, 5, 6, 7, 8, and 9); as such, there are no unresolved issues that would warrant further analysis of additional alternatives in an EIS. The proposed activities would occur primarily at the same location as previously disturbed areas (draft DN at 2), and the research community would be able to continue to access the area with some exceptions during implementation (EA at 16). The EA documented where some research plots would likely be impacted by the action alternatives. EA at 28, 29, and 30. The FONSI in its entirety documented by an EIS would not be prepared.

The Responsible Official is not required to “respond” to comments on an environmental assessment, but instead is required to consider them. Documentation of the consideration of comments and public involvement is provided in several areas including Section 4 of the EA (EA at 72, 73, and 74), all of Appendix C, and the draft DN at 22 and 23.

Objector Statement #9m: Objector states that they requested the project file through the Freedom of Information Act (FOIA) and that the Forest’s response that they followed policy on the release of information is inaccurate because they had not received all of the documents, which prejudiced their ability to object. CFC at 12-13.

Response: I find that the processing of the FOIA is a separate process from the objection period; I also find that the objector was able to submit an objection and that they agreed to a “rolling release” of records, as documented in their objection at 12.

I asked Regional Office staff to give me an update on the status of the FOIA. It is my understanding that Forest released everything that they could. The remaining records are being prepared for review by the Regional Office and the US Army Corps of Engineers, as the Forest does not have the authority to release records belonging to other agencies. In addition, the vast majority of the documents that are pertinent to the project are publicly available and are located on the project’s website, including both preliminary input from the resource specialists for the NOPA, as well as their input for the EA.

Because a rolling release was agreed to by the objectors and because the majority of documents related to the preparation of the NOPA and EA are on the website, no further response is needed for this objection. The Forest, the Regional Office and Army Corps of Engineers will continue working on the FOIA request.

Objector Statement #9n: Objector requested a comment period extension or an additional comment period to allow meaningful comment because the timing of the comment period over winter vacation resulted in critical information requests that were left unanswered. Objector specifically notes that they sent a letter requesting a comment extension on December 19th, but did not receive a response until January 3rd, which was halfway through the comment period. CFC at 12-13.

Response: I find that the Forest’s comment periods complied with law regulation and policy.

The regulation at 36 CFR 218.25(a)(iv) states that the agency shall not extend the comment period. The information regarding comment periods was (and is) publicly available. Individuals and groups received notification of the opportunity to comment according to law, regulation, and policy. Regardless of any delay in their request for extension of the comment period, no further response is needed because an extension of the comment period is prohibited by regulation.

Objector Statement #9o: Objector notes that the draft DN, EA and FONSI were published in the middle of a global pandemic, with no accommodations or concessions to allow the public time to respond to the draft decision or deal with global restrictions and the effects of COVID-19. CFC at 13.

Response: See response to Objector Statement #9n.

Individuals were notified by email, mail, newspaper of record, and websites (the same means of notification for the NOPA comment period). Besides a restriction on postal mailed objections (those wishing to postal mail objections needed to notify an employee so that objections could be properly routed), all electronic communications were fully functional and all employees were engaged in the project. A resolution meeting was held via teleconference. The objector did not specify how the pandemic impacted their time to respond to the draft decision or file their objection, which was received electronically and considered timely. The Forest and the Region have continued with their operations and have smoothly transitioned to a primarily telework environment, with the exception of field going employees who have adjusted their approaches in order to practice safe social distancing. Because the objectors did not identify how their ability to object to the project was impacted, no remedy or resolution is needed.

Objector Statement #9p: Objector raised concerns that the Forest is undermining the public comment process by failing to have a comment period following the final EA, which resulted in the objectors raising many concerns, substantial changes to the EA and new information that was not included in the notice of proposed action. CFC at 13.

Response: See response to Objector Statement #9n. The final EA did not include substantially new information to the proposed alternatives from what was provided in the NOPA, that would warrant an additional comment period with the release of the final EA and draft DN and FONSI.

The regulation at 36 CFR 218.25(a)(iv), and 36 CFR 218.22 establish the parameters of the opportunity to comment.

The NOPA provided information regarding the proposed activities for both Alternative B and Alternative C. The objector did not list or describe the differences they claim are present between the NOPA and the final EA, therefore consideration for this objection point cannot be further reviewed. In addition, the objection regulations at 36 CFR 218.8(d)(6) allows an objector to file objections on issues that arose after the designated comment period.

Objector Statement #10: Objectors state that the proposed amendment of the Mount St. Helens National Volcanic Monument's Comprehensive Management Plan is inappropriate in its ad hoc nature and fails to comport with the requirements for project-specific forest plan amendments as described in the Forest Service's 2012 planning rule." DJB at 2; CFC at 15-19. Specifically, objectors state that the Forest did not conduct the requisite analysis, which includes: analyzing the scope and scale of a project's effects necessitating a forest plan amendment (analyze the purpose of the amendment and effects of

the amendment); determining whether the proposed amendment is directly related to the substantive provisions of the 2012 Planning Rule; applying those substantive provisions of the Planning Rule to the amendment; and creating new Forest Plan components that address the same resource protection needs of the Forest Plan components that the proposed project cannot meet. CFC at 18-19.

Response: I find that the application of a project-specific forest plan amendment related to the visual quality objective of retention is appropriate given the temporary nature of the use of the road, and is needed in order to achieve the purpose and need for the project. I also find that the scope of the amendment and the process by which the amendment has been applied complies with the requirements of the 2012 Planning Rule.

The regulation for identifying the need for the amendment is found at 36 CFR 219.15(c)(3) and 36 CFR 219.15(c)(4).

The Forest adhered to all requirements pertaining to project-specific Forest Plan amendment, as documented in the NOPA at 18, 19, 20, and 21; the EA at 75 and 76, the FONSI at 6, and the draft DN at 23, 24, and 25. In addition to the information provided in the NOPA discussing the need for the amendment to meet the purpose and need of the project (EA at 75-76), an analysis of the visual resource impacts of the amendment is disclosed in the EA at 31 through 42. The Forest articulated the scope and scale of the amendment in the EA at 75. The Forest identified the substantive requirements that were directly related to the plan amendment in both the NOPA and the EA at 75 and 76. The Forest also addressed its application of the substantive requirements in the EA at 76.

The EA at 76 also explains why no additional plan components are necessary, in that the overall forestwide goal for scenery will still be met with this project. There have been no other plan amendments for visual quality objectives in or near the project area, resulting in intact visual quality for the vast majority of the plan area. No additional plan components are needed because the overall forestwide standard is not being obviated; the impact from this project is temporary and applies to this project only. EA at 76. No plan components are being removed from the plan, which means no replacement plan components need to be added.

See also the response to Objector Statement #11.

Objector Statement #11: Objector states that the proposed amendment could result in an impact to visuals, recreation, opportunities and access and the scenic character of the Monument for up to 20 years, which is a significant impact requiring preparation of an EIS. CFC at 19.

Response: I find that the Responsible Official appropriately disclosed impacts to visuals, recreation, opportunities and access, and the scenic character of the Monument from the alternatives and the associated amendment.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The regulation at 36 CFR 219.13 establishes the process through which project-specific Forest Plan amendments are identified. The regulations at 36 CFR 219.8-219.11 and 36 CFR 219.15 establishes the process through which project-specific Forest Plan amendments are executed.

The EA at 10 established potential impacts to visual and recreation resources as a Key Issue. The EA documents that the action will have short term impacts to the recreation experience on Johnson Observatory Ridge and along Truman Trail. EA at 43-46. Over time, these impacts will decrease as the road closes back in naturally, and the landscape will absorb residual visual changes within 5-10 years. EA at 34-37.

With the project-specific Forest Plan Amendment, the Forest followed the requirements established under CFR 219. The EA at 16-17 and 75-76 documented the purpose and need for the amendment, consistent with 36 CFR 219.13(b)(1)). It identified relevant substantive requirements in light of the scope and scale of the amendment, considered the impacts, and reviewed the best available scientific information. The NOPA Legal Notice and the draft Decision Notice (DN at 18 and 22) each included the required elements relative to the project-specific Forest Plan Amendment.

See the response to Objector Statement #21, which addresses objections related to opportunities and access.

Final Remedies/Resolution for NEPA Adequacy: As documented in the responses to Objector Statements #5b and #9c and #9f, any additional water features such as wetlands and streams found during field visits will be assessed and delineated following protocols from the permitting agencies, and will be documented and added to the Washington State Joint Aquatic Resources Permit Application (JARPA, currently in process). This means that any additional wetlands that may be impacted would be added to the wetland mitigation plan. I instruct the Responsible Official to clearly articulate this in the final decision.

As documented in the response to Objector Statement #5d, the New Zealand mud snail decontamination plan follows the guidance set forth by the State of Washington. As discussed during the objection resolution meeting, I instruct the Responsible Official to further articulate the final decontamination plan, as outlined in the PDC's/mitigation plans for the project in the final decision.

Impacts to Research

Overview and Objector's Suggested Remedy: These objection issues focus on the objectors concerns that the project will impact long-term ecological research⁶ that has been occurring since the 1980s, as well as impacting newer research. Suggested remedy is to withdraw the project and prepare a draft EIS to address the impacts of the project and ensure protection of the Class I research area.

Objector Statement #12: Objectors state that the Forest failed to address the concerns raised by scientists and that proposed road would severely impact and/or totally destroy current, long term research projects/plots (25 plots would be destroyed and 58 plots would be directly impacted), some of which have been ongoing for 40 years, and which would impact future studies, and that the EA failed to provide a detailed disclosure of the specific research projects that would be impacted. LP at 1; FK at 1; SD at 1; MA at 1; CC at 1 and 2; LB at 1; MN at 1; BO at 1; AK at 1; DDF at 1; CM at 1; MI at 1; AS at 1; EM

⁶ Objectors identified impacts to plots located at Willow springs and just before the Clear Creek Springs Area, which provide critical information on the processes of succession and have been in place since 1981. Objectors identified impacts to the novel UWB insect study sites on Spirit Lake's shore, which studies insect biodiversity trends as well as exotic pest presence.

at 1; DCL at 2; VB at 1 and 2; SM at 1; JH at 2; CEC at 1; NF at 1; AO at 1; DJB at 2; AW at 1 and 2; SS at 10-17; CFC at 4.

Response: I find that the EA, draft DN and FONSI described the uniqueness, recognition, and importance of the research projects at the Mount St. Helens National Volcanic Monument (Monument), and that the proposed action within the Class 1 research area is consistent with the description of management within the Class 1 research area laid out in the Mount St. Helens National Volcanic Monument Comprehensive Management Plan (CMP).

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

Consideration of the impacts to research are detailed in the effects analysis in the EA at 27-31. Specifically the EA at 28 identifies the number of individual research plots directly impacted (25) and the types of studies impacted, along with another 58 plots that may be directly or indirectly impacted.

The survey that was sent to researchers requested information regarding the types of research that would be impacted. As documented in the response to Objector Statement #9a, the Responsible Official has reviewed the results of the questionnaire and has considered all of the information the researchers provided, including which specific research plots and projects would be impacted. Maps of potentially impacts research studies are located in the project record.

Objector Statement #13: Objector states that research is one of the main reasons the monument was created, noting that the project is not consistent with the direction in Public Law 97-243 which created the monument. LP at 1; CC at 2; AS at 1; SM at 1 and 3.

Response: I find that the Responsible Official took a hard look at Public Law 97-243 that was the enabling legislation for the monument. The EA at 7-8 includes sections of the law that speak to management of the Monument to protect the geologic, ecologic, and cultural resources along with other actions the Secretary may take.

The regulation at 40 CFR 1508.27(b) requires an assessment of the degree to which the action may adversely affect unique characteristics of the geographic area; the degree to which the action may adversely affect objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources; and whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

The Monument Act includes Section 4(c) "The Secretary shall permit the full use of the Monument for scientific study and research..." but also includes Section 4(b)(3) that states "Nothing in this Act shall prohibit the Secretary from undertaking or permitting those measures within the Monument reasonably necessary to ensure public safety and prevent loss of life and property."

The FONSI at 2-4 recognizes the designation of the Pumice Plain of a Class 1 Research Area and the importance of the Pumice Plain for research. See also the response to Objector Statement #9a and 9b.

Final Remedies/Resolution for Impacts to Research: The EA documented potential impacts to research, documented consideration of alternatives that minimized or avoided impacts to research, and the

Responsible Official considered the comments and concerns raised by the research community. No remedy or resolution is required.

Impacts to the Pumice Plain/Spirit Lake

Overview and Objector's Suggested Remedy: These objection issues focus on the objectors concerns that the project will impact the Pumice Plain. Suggested remedy is to withdraw the project and prepare a draft EIS to address the impacts of the project and ensure compliance with the Aquatic Conservation Strategy (ACS); avoid adverse effects to aquatic resources during project design and implementation; and include an analysis of core sampling access as part of an EIS for long-term management.

Objector Statement #14: Objector states that the effects of the proposed road (which will require extensive earthwork to construct on the Truman Trail) violates the Aquatic Conservation Strategy. Specifically, the project violates the ACS because it would disrupt hydrology and compromise the ecological integrity and rarity of the Pumice Plain because the road would cross 5 permanent streams and 10 smaller seasonal drainages. Objectors state that the road would lead to soil erosion, turbidity and sediment flow into Spirit Lake, which would impact aquatic insects, and fish (including wild winter steelhead, which is a listed species) and riparian vegetation, and that overall mitigation measures are inadequate. Objectors also state that the EA mischaracterizes the impacts to the Pumice Plain, noting that the road would impact only 4% of the Pumice Plain, but that the road would cut through the "heart" of the Pumice Plain. Finally, objectors state that the road would likely be destroyed by the dynamic fluvial geomorphological processes in the watershed, rendering it non-functional and a "fruitless, lose-lose decision." LP at 1; FK at 1; CC at 1; LB at 1; MN at 1; BO at 1; AK at 1; DDF at 1 and 2; CM at 1; EM at 1; DCL at 5; VB at 1-3; SM at 1 and 3; JH at 2; LK at 1; CEC at 1; DFS at 1; AO at 1 and 2; IG at 1; IG at 1; DJB at 2; SS at 16-19; CFC at 4.

Response: I find that the Forest adequately addressed impacts from the temporary access route to the Pumice Plain. I find that the Forest adequately addressed consistency with the Aquatic Conservation Strategy (ACS) associated with actions on the Pumice Plain.

See the response to Objector Statement #16 which addresses consistency with the ACS.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The draft DN at 2 and EA at 21 summarizes that under the selected Alternative B, the temporary access route would be reconstructed/constructed primarily along an existing alignment that was used by the U.S. Army Corps of Engineers to access the same general project areas in the early 1980s. The documentation states that new ground disturbance will be minimized to the extent possible. Since portions of the old roadbed within the alignment are still evident and in use as the Truman Trail, the soil remains compacted and portions are bare due to heavy traffic from the 1980s. Draft DN at 2; EA at 49-50.

The EA at 53-56 and Final Hydrology Report at 12-13 describes the potential for sediment delivery from the temporary access road. The EA at 53 specifically discloses that the amount of sediment delivery to Spirit Lake from the proposed access road would be limited due to project design criteria (PDC) and known best management practices (BMP). Impacts to the following resources are summarized in these locations: EA at 27-31 research; EA at 31-42 visual resources; EA at 43-46 recreation; EA at 65-68

botanical resources; EA at 48-51 soils; EA at 56-60 aquatic species; EA at 60-65 terrestrial wildlife; and EA at 65-68 botanical resources.

The EA at 21 and the Hydrology Report at 5 describes the 2018 Memorandum of Agreement (MOA) between the USFS and Washington Department of Ecology (Forest Service Agreement No. 17-MU-11062754-049, Project Record). The MOA addresses the agency's responsibility to protect and maintain water quality so that water quality laws and regulations are met. Requirements associated with Clean Water Act (CWA) and Washington State water quality regulations will be met through implementation of best management practices in conformance with the CWA and the PDCs listed in the EA Table 1 at 17-21. The specialist input for hydrology resources also notes adhering to Best Management Practices in order to protect water quality. Hydrology Report at 12. The Hydrology Report listed mitigation PDCs and BMPs that will also be required during project implementation.

The responses to Objector Statements #23 and #25 also address how impacts from the temporary access route were analyzed. The response to Objector Statement #9b further addresses how impacts to the Pumice Plain were analyzed.

Objector Statement #15: Objector states that the proposed project further violates the ACS in the following ways: the proposed road crosses 17 waterways, impacting Red Rock Creek Spring through sediment deposits, soil erosion, stream blockage and loss of connectivity; Willow Creek Spring has previously washed out during storms and could carry sediment, fill and construction materials into nearby terrestrial and aquatic habitat and that there are no mitigations for this; Clear Creek Springs will connect with the proposed route during the summer, which could deliver sediment and construction material into the aquatic system; and Geo West Springs could be affected because the proposed road could disrupt connectivity. CFC at 9-11.

Response: I find that the Forest adequately addressed consistency with the Aquatic Conservation Strategy (ACS) associated with the temporary access route.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The responses to Objector Statements #9b and #14 describe the analysis and disclose of impacts to resources associated with the Pumice Plain. The response to Objector Statement #16 addresses consistency with the ACS. The responses to Objector Statements #18 and #25 describe the analysis of impacts and project design features associated with the route construction.

Objector Statement #16: Objector states that the entire Pumice Plain should have been designated as a riparian reserve because it is an unstable/potentially unstable area, as evidenced by the erosion from the 2019 Duck Bay Route, and that the EA failed to disclose how the road would alter aquatic resources, in violation of the ACS. CFC at 10.

Response: I find that the Responsible Official appropriately addressed riparian reserves through the application of the Aquatic Conservation Strategy (ACS). The ACS guides actions within areas adjacent to streams and water bodies as defined in the Northwest Forest Plan. The Forest appropriately disclosed impacts to hydrologic and aquatic resources.

The regulation at 36 CFR 219.15(b) requires project consistency with National Forest System land and resource management plans. The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The Hydrology Report at 3-4 reviews the requirements set forth by the Northwest Forest Plan and described that Riparian Reserve designation requires that management activities in Riparian Reserves do not retard or prevent attainment of the ACS objectives. The Hydrology Report at Table 7 ACS Consistency Review, summarized consistency of the alternatives with the ACS objectives.

Consistency of the alternatives with the ACS is also addressed in detail in Appendix B: Northwest Forest Plan Aquatic Conservation Strategy Consistency for Action Alternatives. Riparian protections and effects are discussed in the EA at Table 1; EA at 53-54 hydrologic resources effects; EA at 57-58 aquatic effects section; FONSI at 3; and the Aquatic Species specialist report at 4-5.

Objector Statement #17: Objector states that the project violates the ACS because the EA did not indicate where water will be withdrawn from or where it would be discharged, and violates the ACS because dredging Spirit Lake and depositing the spoils in the deep part of the lake will alter the physical integrity of the aquatic system including shorelines and bottom configurations. CFC at 10-11.

Response: I find that the Responsible Official adequately addressed the requirement and project design criteria for water withdrawal and discharge.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The EA at 16 describes that a temporary submersible pump or floating pump may be installed in Spirit Lake (in the area of the historical pump station). The pump would feed a hose and fill a tank near the lake shore. The pump would be installed manually. Any pumping or water transfer activities would be consistent with Washington State guidance on aquatic invasive species. Water for drilling operations may be brought in on the temporary access road with a truck or via helicopter.

The EA at 53 and 55 discloses impacts from the relocation of approximately 3 to 4 acre-feet of spoils into Spirit Lake's bottom associated with dredging activities at the tunnel intake. The exact spoil location is currently in discussion/review amongst agency specialists and will be addressed during the permitting process. The EA at 21 Table 1 and the Hydrology Report at 5 describes the 2018 MOA between the USFS and Washington Department of Ecology. It addresses the agency's responsibility to protect and maintain water quality so that water quality laws and regulations are met. Requirements associated with Clean Water Act (CWA) and Washington State water quality regulations will be met through implementation of best management practices in conformance with the CWA and following Project Design Criteria from the EA Table 1 at 17-21. PDCs and BMPs identified in the Hydrology Report will also be required during project implementation.

Objector Statement #18: Objector states that the EA failed to disclose the type of and amount of road proposed for construction (full fill road, cut-and-fill road, or a full bench road, or likely all three types); failed to describe how the proposed road would be built, including the length and amount of cutslope, fillslope, fill, sidecast, and inboard road ditches; failed to describe the kind of road surface drainage that would be used, including the amount and type of drainage structures, such as rolling dips, waterbars,

culverts, bridges, fords and log crossings; failed to describe the amount of non-native material, such as gravel, that would be brought in for the road, the depth of those layers, the sources of non-native materials, or exactly how those materials would be removed from the landscape and disposed of following the project; failed to disclose the potential for stream crossing failures or mass failures; and failed to address the amount of road maintenance that would be required and how that maintenance would increase the amount of vehicle trips per day over the life of the project. SS at 17-18.

Response: I find that the Responsible Official addressed potential impacts from constructing the temporary access route. As required, certain elements (for example type of material, fill source, etc.) are/will be outlined in the Washington State Joint Aquatic Resources permit Application (currently in process).

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The responses to Objector Statements #9b and #14 describe the analysis of impacts and project design features associated with the Pumice Plain. The response to Objector Statement #25 also describes the analysis of impacts and project design features for the temporary access route.

The EA at 1, 2, 15 and 21 describes that road design and drainage features (culvert) will stay as close to the original temporary road (built in the 1980s) footprint as possible, with widening in some locations to support large equipment. The use of this past alignment will minimize new ground disturbance to the extent possible. The EA at 15 describes the types of stream crossings and road fill and how crossings would be installed to minimize impacts. See also the Hydrology Report at 10-13 at 18, which summarizes the numbers of stream crossings and potential sediment delivery. The EA at 17-21 outlines Project Design Criteria to minimize impacts. BMPs will also be required (Hydrology Report mitigation PDC in the Project File).

As required, certain elements (for example type of material, fill source, etc.) are/will be outlined in the Washington State Joint Aquatic Resources permit Application (currently in process). The application is guided by the 2018 MOA between the USFS and Washington Department of Ecology. Forest Service Agreement No. 17-MU-11062754-049, Project Record.

The MOA is described in Hydrology Report at 5 and EA Table 1 and addresses the agency's responsibility to protect and maintain water quality so that water quality laws and regulations are met. Requirements associated with Clean Water Act and Washington State water quality regulations will be met through implementation of BMPs in conformance with the CWA and will follow Project Design Criteria from the EA (Table 1) and BMPs located in project record.

In addition, by reconstructing/constructing the access route along the previous route, the Forest documented compliance with the Monument CMP (Appendix B at 221) by utilizing previously disrupted areas, instead of disturbing new areas.

Objector Statement #19: Objector states that the EA fails to analyze the direct, indirect and cumulative effects of the proposed geotechnical drilling. CFC at 14. Specifically, objectors state that the EA did not describe the equipment that would be used, how drilling will impact the environment, or any other effects from the drilling itself, instead focusing on the effects of the road to the drilling site. CFC at 14.

Response: I find that the EA documented the direct, indirect and cumulative effects for geotechnical drilling as proposed.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The EA at 15 and 16 described the type of drilling that would occur, along with an estimate of drill holes and drill vehicles that would be used. Environmental analyses do not typically prescribe specific types of tools or equipment to be used in implementation unless necessary for effects analyses. Rather, the Forest applies Project Design Criteria (PDC) that the operator must adhere to. EA at 17-21. Whether or not the operator uses a specific type of equipment⁷ is irrelevant so long as they are able to adhere to the required limitations established by the PDC that were analyzed for effects analyses.

The soils analysis discloses information specifically regarding drilling. The direct, indirect, and cumulative impacts of drilling for Alternative B are disclosed in the EA at 49 and 50, and for Alternative C in the EA at 50, 51, and 52. The EA at 49 states that “Compaction, vegetation disturbance, and displacement from connecting trails and drill pads would impact soil formation on areas not previously disturbed.” Geotechnical investigation and core sampling (i.e., geotechnical drilling or drilling), as part of the proposed action common to Alternative B and C, was analyzed for all resources where appropriate. There are maps in the project file for both Alternative B and C that depict the drilling area polygon in relationship to known research plots and study areas.

Objector Statement #20: Objector states that the EA fails to analyze the direct, indirect and cumulative effects to soils and that mitigation measures that result in the permanent alteration of soil layers do not comply with the Northwest Forest Plan. CFC at 14.

Response: I find that the EA documents the direct, indirect and cumulative effects for soils and complies with the NW Forest Plan.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The EA at 48-51 discloses the direct, indirect and cumulative effects associated with the project’s alternatives and disclosed that proposed activities would comply with the Forest Plan, the Monument’s Comprehensive Management Plan, and Forest Service management direction. The EA documents that this project would adhere to project design criteria in order to minimize impacts and comply with the Forest Plan and CMP. EA at 17-21. The Soils Report at 3 and 4 lists specific design criteria that comply with and meet the intent of both the CMP and the Northwest Forest Plan.

⁷ For example, if the Forest were to prescribe a specific brand or style of equipment that would be used and that piece of equipment became obsolete, the effects analysis could be rendered obsolete. It is common practice in the agency to describe the outcome desired, instead of the exact tool used in order to retain flexibility for implementation and in order to ensure that available technology is not excluded.

Objector Statement #21: Objector states that the proposed road impacts recreation opportunities⁸ by impacting hiking, birding, botanizing, scenic views, developing wetlands and enjoyment of the wild landscape. LP at 1; BK at 1; CC at 2; SM at 1; AO at 2; CFC at 4.

Response: I find that the Responsible Official disclosed potential effects from the proposed road actions to recreation opportunities and scenic views and to wetlands.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The EA at 10 established potential impacts to visual and recreation resources as a Key Issue. The EA at 43-46 analyzed the direct, indirect and cumulative effects from the alternatives on recreation. Alternative B would require National Forest System Road 99 extension to be closed at times in order to allow large equipment trucks to access the staging area. The EA stated that access to multiple trails and viewpoints would be suspended during these times. In addition to the temporary Truman Trail closure, access to the Windy, Loowit, and Abraham trails would be limited to outside of the project area.

The EA at 31 disclosed the direct, indirect and cumulative effects from the alternatives on visual resources, including impacts to the visual quality objective classifications and to key viewing platforms and routes, also known as viewsheds (from which most visitors view an area). The EA disclosed findings of effects to the viewing platforms during construction, during use of access road and geotechnical drilling, and the effects after rehabilitation of temporary access road.

The EA at 34-37 disclosed the expected length of impacts to visual quality objectives from the key viewing platforms. The EA documented that rehabilitating the temporary access road, returning the grade to its former repose, and revegetating the disturbed soils with native plants would reduce the visual impact upon the views from Windy Ridge to the degree that it is likely the resource would meet the retention visual quality objective in the long term (5 to 10 years).

The draft DN at 5 addressed impacts to visual and recreation resources in terms of the decision rationale and acknowledged the impacts to recreation opportunities, visual quality objectives and the natural landscape. Potential impacts to wetlands are addressed in Objector Statement #5b and #9f.

Objector Statement #22: Objector states that Van Dyke's salamander is a survey and manage species that exists in headwater seeps that feed into Duck Bay, and that the Forest is required to survey and buffer this species to avoid loss of undiscovered sites. CFC at 14.

Response: I find that the EA documented potential effects to the Van Dyke's salamander.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

⁸ Objectors state that the "disturbance from the proposed project will be visible from a vast array of locations including Harry's Ridge, Windy Ridge, Johnston Ridge, and Mount Margaret Backcountry. Additionally, the proposal identifies Windy Ridge as a staging zone, which will lead to the closure of the ridge" and any associated trails (including the Plains of Abraham and Truman Trail) for the duration of the project.

The EA at 61 and 62 disclosed impacts to the salamander and found that there are known populations in the proximity of the riparian crossings and that the project area may be important as dispersal habitat. The Biological Evaluation (project record) determined that implementation of the action alternatives may impact individuals or habitat, but would not contribute to a trend towards federal listing or loss of viability of the population or species. Field surveys conducted in the summer of 2020 confirmed the stream crossings are not suitable habitat for Van Dyke's salamander; this documentation will be added to the project record.

Objector Statement #23: Objector also states that the proposed road would disturb and displace wildlife, and would create noise, vegetation clearing, oil/diesel pollution, dust and lead to the introduction of invasive species (from vehicles and crushed rock), including the potential introduction of New Zealand mud snails (and the potential for downstream spread through the tunnel into the Toutle River system, which has not been evaluated), and that overall mitigation is inadequate. LP at 1; FK at 1; CC at 1; DCL at 2, 3 and 5; VB at 2; SM at 1 and 3; JH at 2; NF at 1; DFS at 1; AO at 2; IG at 1; DJB at 2; DJG at 2; AW at 1 and 2; SS at 19-21; CFC at 6.

Response: I find that the EA documented potential effects of the proposed temporary road to wildlife, vegetation and air pollution.

The EA at 53-56 and Final Hydrology Report at 12-13 describes the potential for sediment delivery from the temporary access road. The EA at 53 specifically discloses that the amount of sediment delivery to Spirit Lake from the proposed access road would be limited due to project design criteria and known best management practices. Impacts to water quality from the proposed activities are disclosed in the EA at 53-56 and Final Hydrology Report at 3, 5, 6, 13 and 18. Impacts to the following resources are summarized in the following locations: EA at 27-31 research; EA at 31-42 visual resources; EA at 43-46 recreation; EA at 48-51 soils; EA at 56-60 aquatic species; EA at 60-65 terrestrial wildlife; and EA at 65-68 botanical resources.

The EA at 28-29 (Research), 47 (Aviation), 48-52 (Soils) disclosed potential impacts from dust or wind erosion associated with implementation. The EA Table 1 includes a range of project design features to minimize wind erosion and dust, including the use of dust palliatives on roads and landings.

The effects section on research (EA at 28-29) disclosed that the temporary access road construction and use under the action alternatives may cause dust and ash plumes that impact research plots. In the project record under soils, the analysis documented the differences in scale between disturbance limits corridor, estimated ground disturbance, and assumptions made.

As for the potential for the spread of known populations of New Zealand mud snails downstream from the tunnel inlet and gate structure, adherence to the State of Washington decontamination strategy is the best science available (by reference); see also the responses to Objector Statements #5d.

Objector Statement #24: Objectors states that invasive plants exist along the UTV route to Duck Bay, which suggests that Forest staff are not currently employing invasive species prevention protocols on vehicles, clothing and equipment before and after use on the Pumice Plain, and that introducing additional invasive species would further disrupt and bias research. SS at 19-20.

Response: I find that the EA, DN, and project record disclose potential effects of the project to riparian and wetland communities, soil compaction, and invasive species spread.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The Botany Report at 9 notes common vectors for invasive species, which include pack animals and recreationists, as well as agency vehicles and heavy equipment. The EA at 66-68 describes the status of invasive species known to occur in or near the project area and documents the potential impacts from those species, as well as the potential to spread invasive species. The EA at 19 documents specific design criteria to prevent the introduction and spread of invasive species from project implementation.

Objector Statement #25: Objector states that the EAs claim that removal of the road would return the area to pre-road conditions displays a “lack of knowledge of and concern for the ecological processes on the Pumice Plain” as it is impossible to return to pre-road conditions. CC at 1 and 2; LB at 1; MN at 1; BO at 1; AK at 1; CM at 1; EM at 1; VB at 2; SM at 2; CEC at 1; DJB at 2. SS at 13-14 and 18.

Response: I find that the EA disclosed impacts of the temporary access road and how the access route would be rehabilitated after use.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The draft DN at 2 summarizes that under the selected Alternative B, the temporary access route would be along an existing alignment that was used by the U.S. Army Corps of Engineers to access the same general project areas in the early 1980s. It states that it will minimize new ground disturbance to the extent possible. Since portions of the old roadbed within the alignment are still evident and in use as the Truman Trail, the soil remains compacted and portions are bare due to heavy traffic from the 1980s.

The EA at 14 disclosed that Alternatives B and C include the use of a temporary access road, which is described using definition from 36 CFR 212. The EA at 20 and the draft DN at 16 require that after the project is completed, the road should be restored to pre-project condition to the maximum extent possible and not be accessible to motorized vehicles.

The response to Objector Statements #14 and #18 further details analysis of the temporary access route.

Objector Statement #26: Objector states that dredging in Spirit Lake and dumping organic matter in the deep water will likely further depress oxygen levels in the lake and may make a portion of the lake inhabitable for fish and other aquatic ecosystems, and that this was not considered in the EA. Objector notes that anoxic conditions may release “redox sensitive metals and phosphorus” which would impact water quality in the lake, possible in the long term. DJG at 1.

Response: I find that the EA documents the direct, indirect and cumulative effects for project area.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

Impacts to water quality from the proposed activities are disclosed in the EA at 53-56 and Final Hydrology Report at 3, 5, 6, 13 and 18. As noted previously, the 2018 MOA between the USFS and Washington Department of Ecology addresses the agency's responsibility to protect and maintain water quality so that water quality laws and regulations are met. The activities associated with construction of the barge loading facility, would meet the State of Washington water quality regulations.

Objector Statement #27: Objector states that shoreline disturbance due to construction of the large barge loading area will have significant effects on lake biota, including aquatic food sources such as salamanders, fish fry, insect larvae and leeches. Objector also notes that the shoreline area near the proposed loading area is prone to liquefaction due to subsurface groundwater flow, which has not been estimated, and that impacts to nutrient flow have not been considered. DJG at 1.

Response: I find that the EA documented the direct, indirect and cumulative effects of construction of the barge loading area.

The regulation at 36 CFR 220.7(b)(3) directs the agency to analyze the direct, indirect, and cumulative effects of the proposed action and any alternatives.

The EA at 53-54 discusses the relatively small size of the footprint compared to the size of the lake, and that these were previously disturbed areas. Adhering to the MOA, PDCs and BMPs will minimize effects on lake biota and nutrient flow. Impacts to water quality from the proposed activities are disclosed in the EA at 53-56 and in the Final Hydrology Report at 3, 5, 6, 13 and 18.

Objector Statement #28: Objector states that the EA failed to address wind erosion and that planned mitigation may be inadequate or inappropriate. SS at 18.

Response: I find that the Responsible Official considered impacts related to the potential for wind erosion, and established project design criteria to minimize potential effects.

The regulation at 36 CFR 220.7(b)(3) requires that an EA include a discussion of the environmental effects of the proposed project and any alternatives, including disclosing the direct, indirect and cumulative effects.

The project record refers to the potential for wind erosion, both naturally and as an effect from project actions at a number of locations. The EA at 28 discloses that the Pumice Plain landscape is naturally subject to considerable scouring and depositing of sediment and wind erosion. The EA at 28-29 disclosed that the temporary access road construction and use under the action alternatives may cause dust and ash plumes that impact research plots.

The EA at 28-29 (Research), 47 (Aviation), 48-52 (Soils) disclosed potential impacts from dust or wind erosion associated with implementation. The EA Table 1 includes a range of project design features to minimize wind erosion and dust, including the use of dust palliatives on roads and landings.

Final Remedies/Resolutions for Impacts to the Pumice Plain/Spirit Lake: Impacts to the Pumice Plain and Spirit Lake were disclosed in the EA and project record. No remedy or resolution is needed.