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Formerly Gifford Pinchot Task Force
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August 12, 2016

Via email: objections-pnw-regional-office@fs.fed.us.

Forest Supervisor Gina Owens
Objections Reviewing Officer
USDA Forest Service
Attn: 1570 Appeals and Objections
1501 E. Evergreen Blvd.
Vancouver, WA 98661

RE: 36 C.F.R. § 218 Objection to the Silver Creek Thin Project Draft Decision Notice and FONSI

Dear Ms. Owens:

The Cascade Forest Conservancy ("Conservancy") files this objection to the Silver Creek Thin Project Draft Decision Notice and Finding of No Significant Impact (Draft DN and FONSI), published on June 30, 2016. The project in located on the Cowlitz Valley Ranger District, Gifford Pinchot National Forest, in Lewis County, WA. Gina Owens, Forest Supervisor for the Gifford Pinchot National Forest, is the responsible official. This objection directly relates to the Conservancy's scoping comments (dated January 15, 2015) and the Conservancy's comments on the Draft Environmental Assessment (EA) for the Silver Creek Thin Project (dated December 23, 2015), and we incorporate by reference those comments herein.

PROJECT DESCRIPTION: Proposed Action

- Commercial thinning of conifers on approximately 2,179 acres within mid-seral forest plantations
- 176 acres of regeneration cuts within mid-seral forest plantations and within one unit that contains an older, naturally regenerated stand;
- 7.43 miles of re-opened temporary roads;
- 7.41 miles of new temporary road construction;
- 22 stream crossings on temporary roads.

The Draft DN and the associated Revised EA fail to sufficiently address and resolve our concerns. We are especially troubled by the proposed regeneration harvest within units that contain older, naturally regenerated stands, suitable Northern Spotted Owl ("NSO") and Marbled Murrelet habitat, and where there are soil stability issues. The Draft DN did not address our concerns about the creation of new temporary roads, the reopening of temporary roads, and the amount of stream crossings in the project area. Temporary roads and stream crossings are especially concerning in proximity to listed fish habitat. Further, the Forest Service failed to consider a reasonable range of alternatives in its analysis and should have developed either a supplemental Environmental Assessment or a full Environmental Impact Statement ("EIS") because, as pointed out in the Conservancy's comments, the intensity of the proposed action

supports the preparation of an EIS for this project. The Conservancy raised all of these issues in our previous comments. Please see our specific objections below.

OBJECTIONS RELATED TO THE PROPOSED ACTION

I. The Forest Service failed to consider a reasonable range of alternatives under NEPA.

In our previous comments, we expressed our concern with the lack of action alternatives in the Silver Creek Thin Draft EA. In the Draft EA, the Forest Service considered only the no action alternative and the proposed action in-depth. Other alternatives were considered, but eliminated from detailed study, including the reconstruction of a portion of FR 47, vegetation thinning without aquatic restoration projects, and daylighting roads.[1] The Conservancy's Draft EA comments propose with specificity viable reasonable alternatives that would have fewer impacts on riparian ecosystems as well as NSO and marbled murrelet populations. However, the Draft DN dismisses a few suggested alternatives with a brief cursory look and simply ignores the additional suggested reasonable alternatives provided by the Conservancy.

NEPA requires federal agencies to explore and objectively evaluate all reasonable alternatives and to discuss the reasons for eliminating alternatives not developed in detail.[2] The EA is inadequate based on its lack of alternatives. As the Ninth Circuit explained, "the existence of a viable but unexamined alternative renders an EA inadequate." [3] In considering alternatives to the proposed project, the Forest Service "must look at every reasonable alternative within the range dictated by the nature and scope of the proposed action, and sufficient to permit a reasoned choice."[4] Informed and meaningful consideration of the alternatives is an integral part of the statutory scheme.[5] An alternative that is consistent with the policy goals of the project and is potentially feasible must be analyzed in depth and not preliminarily eliminated.[6]

Although it is not explicitly stated, the absence in the Revised EA of alternatives suggested by the Conservancy seems to be rationalized in the Draft DN as alternatives that "did not meet the purpose and need for action" or "were not reasonably feasible or viable."[7] The broad language used in the Draft DN, however, makes no clear mention of the alternatives suggested by the Conservancy, and neither the Revised EA nor the Draft DN indicate why the suggested reasonable alternatives that the Conservancy provided were not considered. Additionally, the Conservancy disagrees that the alternatives suggested in our comments fit within either one of the suggested categories provided in the Revised EA (i.e. "did not meet the purpose and need for action" or "were not reasonably feasible or viable."). In our Draft EA comments, the Conservancy suggested alternatives that would provide protections for riparian ecosystems, and NSO and marbled murrelet populations, which were potentially feasible and met the purpose and need for action. Despite this, these alternatives were not considered.

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[1] Revised EA p. 45
[2] 40 CFR 1502.14
[3] *Alaska Wilderness v. Morrison*, 67 F.3d 723 (9th Cir. 1995).
[4] *Id.* (internal citations omitted).
[5] *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988).
[6] *Muckleshoot Indian Tribe v. U. S. Forest Serv*., 177 F.3d 800, 813–14 (9th Cir. 1999).
[7] Draft DN p. 11

During scoping, the Conservancy expressed concerns in written comments with the prescribed timber sale on several levels. First, we expressed concerns with the proposed timber harvest, especially regeneration harvest, in older, naturally regenerated stands that contain habitat for NSOs and marbled murrelets.[8] Second, the scoping comments also state that timber harvest in such stands should be avoided because, as prescribed, the harvest is controversial, and timber projects could move forward more quickly when thinning efforts are focused on younger plantation stands.[9] Third, our scoping comments also identify our preference for using variable density thinning with small gaps to create diversity because large regeneration harvests often have similar impacts to traditional clearcuts.[10] Fourth, during the scoping phase, we also expressed concerns with reopening and building new temporary roads.[11]

We further elaborated on the above expressed concerns in the comments the Conservancy submitted on the Draft EA. In those comments, we provide eight clearly defined alternatives to the project as described. Specifically, we requested that the Forest Service consider an alternative that drops Units 28E, 29E, 37E, and 38E and substitutes a thinning prescription for regeneration harvest on matrix lands.[12] We also requested consideration of an alternative that eliminates timber harvest within suitable NSO nesting, roosting, and foraging habitat and marbled murrelet nesting habitat, specifically referring to Unit 29. Additionally, our suggested alternatives in our Draft EA comments included elimination of stream crossings, reducing the amount of temporary roads and road reconstruction, and reducing timber harvest related impacts to marbled murrelets and NSOs.[13] We supported these proposed alternatives in our comments with laws, regulations, and case law that we believe would be violated if the project went forward as proposed.

Despite a small modification to Unit 29,[14] there is little indication in the Revised EA that the Forest Service considered the alternatives suggested by the Conservancy. The alternatives suggested by the Conservancy meet the purpose and need for the proposed action and are reasonably feasible. Therefore, the Forest Service violated NEPA when they did not consider the alternatives proposed by the Conservancy in our scoping and Draft EA comments.

II. The Forest Service failed to prepare an EIS as required by NEPA.

The Conservancy further contends that the Forest Service did not meet the requirements of NEPA because it did not prepare an EIS. Under NEPA, a federal agency must prepare an EIS if the proposed federal action could "significantly affect the quality of the human environment."[15] To trigger the preparation of an EIS, the significant effect need not actually occur. It is sufficient

[88] GPTF Scoping comments January 15, 2015
[9] *Id* at 4.
[10] *Id* at 5.
[11] *Id.* at 4.
[12] GPTF Draft EA comments p. 1.
[13] *Id.*
[14] The Revised EA contains a modification that Unit 29 will not be included until marbled murrelet surveys are complete. The modification does not resolve our concerns related to that unit. The possible presence of marbled murrelets in that unit is only one of multiple reasons why the older, naturally regenerated stand is ecologically valuable.
[15] 42 U.S.C. § 4332(2)(c)

that the question is raised of "whether a project may have a significant effect on the environment."[16] The Council on Environmental Quality regulations defined "significant effect" by reference to the context and intensity of the action.[17] In assessing the intensity of the action, the agency must consider factors such as:

> (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
> (2) The degree to which the proposed action affects public health or safety.
> (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
> (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
> (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
> (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
> (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
> (8) The degree to which the action may adversely affect districts, sites, highways, structures, or 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.
> (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
> (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Id.

The Conservancy submits in our Draft EA comments that an EIS is required by NEPA in this situation for several reasons.[18] First, there are multiple highly controversial components of the project, specifically the proposed regeneration harvest units totaling 176 acres, and the inclusion of Unit 29, which contains an older, naturally regenerated stand. Second, the possible effects of eliminating marbled murrelet and NSO habitat through regeneration harvest are highly uncertain or involve unique or unknown risks. Third, there are potentially cumulative impacts from

[16] *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir 1998).
[17] 40 CFR §1508.27
[18] GPTF Draft EA comments p. 3.

multiple projects in the same geographic area and watershed that could adversely affect NSO critical habitat and marbled murrelets. The project will have adverse effects to NSO critical habitat and marbled murrelets, species listed under the Endangered Species Act ("ESA"). These reasons fall within the factors an agency must consider when assessing the intensity of a proposed action for the purpose of determining whether the preparation of an EIS is necessary.

The determination in the Draft DN that the preparation of an EIS is not necessary is contrary to law. First, the Draft DN states that the effects of the project are not likely to be highly controversial.[19] This determination is based in part on the previous implementation of similar projects.[20] In the Draft DN, controversy is interpreted as the "degree to which there is scientific controversy relative to the results of the effects analysis."[21] We disagree with the determination, based on the interpretation of controversy in the Draft DN, that the effects of the proposed action are not highly controversial. The position of the Conservancy is not based on mere opposition to the proposed action; it is based on a scientific controversy relative to the effects of the action, and is consistent with the definition of "controversy" applied in the Draft DN. Regeneration harvest totaling 176 acres is an action we are opposed to due to the likely short-term and long-term effects of that type of timber harvest. Regeneration harvest typically replicates a clearcut, which has short-term and lasting detrimental impacts to soil health, water quality, and wildlife.[22] The Conservancy cites several studies in our Draft EA comments that indicate that the prescribed regeneration harvest could have detrimental impacts.[23] Additionally, including units with older, naturally regenerated stands, like Unit 29, in a regeneration harvest prescription is something we are opposed to because regeneration harvest in those units would eliminate NSO and marbled murrelet habitat, of which there is already too little.[24] The Conservancy disagrees, based on science, with the Forest Service's analysis of the effects of the proposed action, especially the perceived benefits that will come from the creation of early seral habitat through regeneration harvest.[25]

Implementation of similar projects in the forest also does not indicate that the current project is not highly controversial. We have raised our concerns regarding the effects of similar timber sales throughout the NEPA process for Silver Creek, and for previous similar projects.[26] The previous implementation of similar projects does not resolve the dispute over the effects of such proposed actions in the Silver Creek EA, and does not determine whether the proposed action is "highly controversial."

The determination that the proposed action does not involve unique or unknown risks is also incorrect. As mentioned in our comments on the Draft EA, the effects of regeneration harvest, particularly to NSOs and marbled murrelets when done in proximity to NSO and marbled murrelet habitat, are detrimental partially because the full extent that these species are impacted is uncertain. Specifically, the extent of the short-term impacts of timber harvest in NSO and

[19] Draft DN p. 14
[20] *Id.*
[21] *Id.*
[22] GPTF Draft EA comments.
[23] *Id.*
[24] For further discussion of this, please see our scoping and Draft EA comments.
[25] See our Draft EA and scoping comments for discussion of the effects of regeneration harvest.
[26] See our comments and objection for the Swift Thin project.

marbled murrelet habitat are uncertain. Unknown short-term risks are especially problematic for the NSO, which continues to decline throughout its range due to the invasive barred owl, habitat loss, and climate variation.[27] For these reasons, the proposed action involves unique or unknown risks. Relatedly, the proposed action is likely to adversely affect marbled murrelets, as well as habitat for the marbled murrelet and NSO. Both the NSO and the marbled murrelet are listed under the ESA, so in determining the intensity of a proposed action, the Forest Service must consider the degree to which the action will adversely affect these species and their habitat in making their determination of the intensity of the proposed action.

To determine whether an EIS must be prepared, NEPA requires an agency to consider whether the project could "significantly affect" on the human environment. The agency determines whether an action is "significant" by analyzing the significance of the project in context and the intensity of the project.[28] The intensity of the proposed action suggests that the proposed action could have a "significant effect." Therefore, NEPA requires the Forest Service to prepare an EIS for the proposed action.

III. Regeneration harvest to create early seral habitat is unnecessary and harms NSO and marbled murrelet habitat.

The proposed action involves regeneration harvest on 176 acres within the project area to create early seral habitat for deer and elk winter forage.[29] As previously stated in our comments, the Conservancy is opposed to regeneration harvest to create early seral habitat at this scale. Regeneration harvest typically replicates a clearcut, with immediate, short-term, and long-lasting detrimental impacts to soil health, water quality, and wildlife[30]. Additionally, some units proposed for regeneration harvest are within NSO nesting, roosting, and foraging habitat, and within marbled murrelet nesting habitat. Both the NSO and marbled murrelet are listed species under the ESA, and the creation of early seral habitat though regeneration harvest will place an additional stressor on these species by reducing their already limited habitat.

A. The replacement of regeneration harvest with thinning on matrix lands is more ecologically appropriate and less controversial.

Replacing regeneration harvest with thinning on matrix lands allows the Forest Service to meet the purpose and need of the project in a less controversial and more ecologically appropriate way. The purpose and need for the Silver Creek project includes producing commercial yields of timber, stand improvement cutting in young plantations to increase species diversity, and providing more early seral wildlife habitat in the planning area.[31] Substituting thinning for regeneration harvest on matrix lands would still provide commercial timber, improve the condition of young plantations, and create additional early seral habitat while being more ecologically appropriate.

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[27] Katie M. Dugger et al., The effects of habitat, climate, and Barred Owls on long-term demography of Northern Spotted Owls, 118 The Condor 57-116 (2016).
[28] 40 CFR 1508.27
[29] Revised EA p. 14.
[30] See our Draft EA and scoping comments.
[31] Draft DN p. 2

Regeneration harvest at the scale proposed in this project is very controversial. Not only would the substitution of thinning for regeneration on matrix lands be more ecologically appropriate, it would allow the project to move forward at a quicker, more efficient pace. The Conservancy has previously and repeatedly expressed concern and opposition, both in comments for this project and other projects, to large regeneration harvests due to their similarities to clearcuts.

The analysis in the EA of seral stages in the Silver Creek subwatershed further reinforces our opposition to regeneration harvest to create early seral habitat. The analysis shows that the mid-seral, closed structure is much higher than historic levels and overrepresented in the watershed.[32] However, the analysis also shows that early seral is only slightly underrepresented, at 4% vs. the historic level of 5%.[33] The analysis states that the slight underrepresentation of early seral habitat, only one percentage point, can be accounted for by natural disturbance variability.[34] Additionally, private lands adjacent to the National Forest near Silver Creek have been heavily harvested and are likely providing early seral habitat for wildlife, although the condition of that habitat is unknown.[35]

The summary of the analysis states that late-seral closed is most lacking in the watersheds proposed for treatment.[36] Yet portions of the units proposed for regeneration harvest appear to be in a late seral closed stage.[37] Regeneration harvest in these units, particularly Units 29 and 38, is inconsistent with the Forest Service's own analysis of the seral stages in the Revised EA. Regeneration harvest to create early seral habitat is not necessary because the slight underrepresentation of that seral stage will potentially be remedied naturally. The creation of early seral habitat through regeneration harvest is especially inappropriate in stands that have late seral characteristics. Late seral forests provide NSO foraging and dispersal habitat and potential marbled murrelet nesting habitat, and are already underrepresented on the landscape, more so than early seral habitat. The underrepresented habitat of these federally-listed species should not be further reduced by converting it to early seral habitat.

The analysis of seral stages in the Revised EA also supports the alternative proposed by the Conservancy to replace regeneration harvest with thinning on matrix lands. As our comments indicate, the Conservancy is supportive of thinning young, dense plantations to promote forest diversity. We believe this is a more appropriate choice for the plantation units in this project. The minimum five acre gaps proposed in the regeneration harvest units for this project are more likely to resemble a clearcut in their impacts than thinning to promote forest diversity. According to the summary of the seral stage analysis, an ecologically-driven thinning treatment would involve thinning abundantly-represented mid-seral closed stands to encourage growth and canopy layering, facilitating the recruitment of underrepresented late-seral closed stands.[38] The abundance of mid seral plantations indicates that thinning to promote late seral habitat would still provide commercial timber, while being less controversial and more protective of listed species and their habitat.

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[32] Revised EA p. 141.
[33] *Id.*
[34] *Id.* Appendix E p. 253.
[35] *Id.*
[36] *Id.*
[37] *Id.* Fig. 17.
[38] *Id.* Appendix E p. 253.

The seral stage analysis shows little need to create early seral habitat because the underrepresentation of early seral habitat is slight enough that it may be corrected by natural disturbances. To meet project needs, as suggested in our previous Draft EA comments, thinning should be substituted for regeneration harvest on matrix lands to support forest diversity in young, dense plantations.

B. Some units within the proposed regeneration cut contain older, naturally regenerated stands and should be eliminated from timber harvest due to their value as a more mature, diverse forest that provides marbled murrelet nesting habitat and NSO habitat.

Units containing older, more diverse stands should be eliminated from timber harvest because harvest in those units does not serve the purpose of improving young plantation stands, and meeting the purposes of commercial timber harvest and early seral habitat creation would be more appropriate elsewhere. The continued inclusion of Unit 29, containing 50 acres, remains a concern for the Conservancy. Although there will be marbled murrelet surveys conducted prior to the inclusion of this unit, this modification does not remedy our concerns. Our concern with the inclusion of Unit 29 is strongly tied to the potential nesting habitat for marbled murrelets, but extends beyond that issue. The condition of the forest within Unit 29 distinguishes it from the other units in the Silver Creek Project.[39] Unlike many of the other units which are young, dense plantations, Unit 29 contains an older, naturally regenerated stand. Since this seral stage is already underrepresented on the landscape, the Forest Service should not further reduce the amount by allowing timber harvest in Unit 29, especially as part of the proposed regeneration harvest.

Unit 29 provides suitable marbled murrelet nesting habitat because there are larger trees with suitable nesting platforms and many snags. Although marbled murrelets have not been detected in the area, they have been detected within seven miles of the Silver Creek planning area.[40] Also, the Silver Creek planning area is within the 55-mile zone for suitable marbled murrelet nesting habitat. Following regeneration harvest in Unit 29, the habitat would no longer be suitable for marbled murrelets, even if large trees with nesting platforms would be retained. Regeneration harvest should also not occur on the portion of Unit 29 that does not contain suitable marbled murrelet nesting habitat because creating open, early seral habitat in proximity to suitable nesting habitat could subject marbled murrelet nests to increased levels of predation. Nest failure is often due to predation, and the edge effect created by regeneration harvest increases the nest exposure to predation.[41] The presence of suitable marbled murrelet nesting habitat in Unit 29 weighs in favor of eliminating this unit from timber harvest.

Beyond its value as suitable marbled murrelet nesting habitat, Unit 29 provides nesting, roosting, and foraging habitat for the NSO and habitat for other sensitive species. In Unit 29, the proposed action would convert 33 acres of suitable NSO habitat to early seral habitat.[42] Unit 29 is located within the home range of the historic NSO site "Grassy #505." Unit 29 continues to provide suitable nesting, roosting, and foraging habitat through a naturally-regenerated, 85-year old stand

[39] See GPTF's Draft EA comments pp. 12-13 for tree age distribution and photograph of forest in Unit 29.
[40] Revised EA p. 118.
[41] Revised EA p. 116
[42] *Id.* p. 107.

that has retained legacy features from a previous stand including trees up to 100 inches DBH, many snags, and large pieces of down wood.[43] The proposed action is not consistent with the recommendation in the NSO recovery plan to maintain all suitable NSO habitat because 43 acres of suitable foraging habitat (33 acres of regeneration harvest and 10 acres of thinning in Unit 29) will be cut and converted to non-habitat.[44] The Forest Service is required to meet ESA standards and not destroy or adversely modify the critical habitat of listed species if there is a reasonable and prudent alternative.[45] Critical habitat is important not only for species survival, but also for species recovery.[46]

In addition to being inconsistent with the NSO recovery plan, the proposed action would potentially increase competition with barred owls. Barred owls are already present in Unit 29, and converting 43 acres of suitable foraging habitat to non-habitat has the potential to increase competitive interactions as habitat for the NSOs is further reduced.[47] There is intense competition between the two closely-related species for habitat and territory, therefore any habitat manipulation within NSO habitat has the potential to increase competition with barred owls.[48] The elimination of Unit 29 from timber harvest is supported by the impacts to NSO habitat of the proposed action, and the increased competition with barred owls that could result.

Unit 29 also contains habitat for Sensitive or Survey & Manage ("S&M") mollusk species.[49] One species that has been documented in Unit 29 is the Puget Oregonian snail, a Category A S&M species. Puget Oregonian snails were found in two locations in Unit 29.[50] There were also two locations of Puget Oregonian snails found during surveys of the Silver Watch Thin Unit 23 in the 1990s. Unit 23 in the Silver Watch Thin is the same as Unit 29 in the Silver Creek Thin.[51] The proposed treatment may impact individuals or habitat because it will alter microclimatic conditions within the units.[52] The Puget Oregonian snail is generally associated with late-successional stands and is strongly associated with big leaf maple trees. Although relatively common in the Cowlitz Valley Ranger District, the Puget Oregonian is rare in other parts of its range. The presence of S&M mollusk species, like the Puget Oregonian snail, lends further support to eliminating timber harvest within Unit 29. Their presence in Unit 29 indicates that the older stand within that unit provides suitable habitat for late-seral associated species. Such heavily underrepresented habitat should not be lost to regeneration harvest to create early seral habitat, which is not justified based on the seral stage analysis in the EA.

Another species associated with mature and old-growth forests that occurs within the project area is the pileated woodpecker. This species uses mature, closed-canopy stands for nesting and roosting.[53] Pileated woodpeckers may also use younger closed-canopy stands if large snags are

[43] *Id.*
[44] *Id.* at 111.
[45] 16 U.S.C. § 1536(a)(2).
[46] *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F.3d 1059, 1070 (9th Cir. 2004).
[47] Revised EA at 110.
[48] *Id.*
[49] *Id.* at 130.
[50] *Id.*
[51] *Id.* at 132.
[52] *Id.*
[53] *Id.* at 134.

available.[54] Unit 29 contains large snags that could be used for nesting by the pileated woodpecker and provides suitable foraging habitat.[55]

Unit 29 provides late seral habitat that is underrepresented in the watershed and provides important habitat for NSOs, other sensitive species, and potentially marbled murrelets. For these reasons, the Conservancy is opposed to timber harvest in Unit 29, especially regeneration harvest to create early seral habitat.

Similarly, Unit 38 contains substantial diversity, older stands of trees, and is in close proximity to listed fish habitat.[56] Also, that unit has a disproportionate amount of soil disturbance for its size, because the proposed action involves a regeneration harvest and the construction of a new helicopter landing in that unit, which is only 8 acres in total. Since the unit contains older, diverse stands of trees, is in proximity to listed fish habitat, and involves disproportionately high soil disturbance, we request that Unit 38 be eliminated from timber harvest.

IV. The number of stream crossings and the amount of new and reopened temporary roads in the proposed action slows the meeting of ACS objectives and presents a risk to listed fish habitat.

As mentioned in our Draft EA comments, the Conservancy is supportive of the road closures and stabilization proposed to address terrestrial and aquatic risks. In our Draft EA comments, we also expressed concern about the effects of the proposed road construction, reconstruction, and stream crossings. As pointed out in our Draft EA comments, these road effects rise to the level of requiring the Forest Service to modify the action in order to reduce these effects and meet Aquatic Conservation Strategy (ACS) goals.[57] The presence of listed fish habitat in proximity to harvest units containing stream crossings also risks ESA violations from the road effects in the proposed action. Additionally, the Revised EA did not include a map with clearly marked locations of new stream crossings. This should be the minimum information presented to the public through NEPA. Without a clear map of stream crossings, it is difficult to determine where stream crossings are located within units, hindering the public's ability to participate through NEPA.

Road density in the Silver Creek subwatershed is extremely high at 5.1 mi/mi^2. Current road density in the Silver Creek subwatershed on National Forest land is 3.73 mi/mi^2. Road density values greater than 3 mi/mi^2 are "Not Properly Functioning" according to the National Marine Fisheries Service ("NMFS")'s Pathways and Indicators Criteria for Threatened and Endangered Species.[58] The Silver Creek subwatershed is highly fragmented, with 679 stream crossings on National Forest land and 291 stream crossings in the project area alone.[59] To move the road density toward a lower density, the Forest Service should reduce the amount of new and reconstructed temporary roads in the project.

[54] *Id.*
[55] *Id.*
[56] *Id.* at Appendix E. Also see our Draft EA comments.
[57] GPTF Draft EA comments.
[58] *Id.* at 154.
[59] *Id.*

ACS objective #5 requires the Forest Service to "maintain and restore the sediment regime under which the aquatic systems evolved."[60] The ACS objectives are designed to guide management on Bureau of Land Management ("BLM") and Forest Service administered lands within the Northwest Forest Plan area to maintain and restore ecosystem health at watershed and landscape scales to protect fish habitat and other riparian resources.[61] This project also contains harvest units in proximity to listed fish habitat for species listed under the ESA. The proximity of harvest units to listed fish habitat further supports the elimination of new stream crossings and temporary road construction.

According to the EA, the project includes substantial road reconstruction of system road which are in proximity to listed fish habitat including: 17.2 miles, 22 stream crossings, and 11 harvest units and associated transportation systems.[62] Some of these roads segments will remain on the landscape after completion of the harvest.[63] There are ten units in proximity to listed fish habitat, five of which contain stream crossings.[64] Units 31, 32, 37, 38, and 29 have multiple stream crossings within close proximity to listed fish habitat, with Unit 37 proposed to have the majority of these stream crossings – 13 out of the total 22.[65]

Potential risk of road failure, related to road construction and stabilization, and sediment delivery to spawning habitat is relatively high due to geologic instability in areas of road reconstruction.[66] Primary fish species present in proximity to these units include steelhead, Coho, and Chinook, with suitable habitat present in proximity for all life stages.[67] The EA acknowledges a relatively high probability that road reconstruction and road stabilization activities following harvest and haul will result in short-term sediment delivery due to surface erosion at approximately 22 sites.[68] Sediment is likely to reach listed fish habitat due to the close proximity to listed fish habitat and the steep nature of the transport channels that flow into Silver Creek.[69] Torrent scours from these transport channels have recently overwhelmed pipes and washed out stream crossings, and reconstructed road crossings on geologically hazardous areas have a relatively high risk of failure at some point in the future.[70] It is not likely that Project Design Criteria and best management practices can significantly reduce the overall risk of failure.[71] Sediment is likely to reach critical habitat at some point in the future, and the disproportionate volume of fine particle size in road fill material is likely to have a negative effect if it reaches nearby spawning habitat in Silver Creek.[72] Based on the long term indirect effects, that include catastrophic and

[60] Oregon Bureau of Land Management & Region 6 United States Forest Service, *The Implementation of the Northwest Forest Plan Aquatic Conservation Strategy on BLM and FS-administered lands within the Oregon Coastal Coho CSU,* (2005).
[61] *Id.*
[62] *Id.* at 177.
[63] *Id.*
[64] *Id.* at 178.
[65] *Id.*
[66] *Id.*
[67] *Id.*
[68] *Id.* at 179.
[69] *Id.*
[70] *Id.*
[71] *Id.*
[72] *Id.* at 186.

chronic sources of sediment delivery to critical habitat from road failure, the proposed action is "Likely to Adversely Affect" Lower Columbia River steelhead trout, Lower Columbia River Chinook, and Lower Columbia River Coho salmon.[73] The Forest Service also submitted a determination to NMFS that the project is "Likely to Adversely Affect Critical Habitat" for Lower Columbia River steelhead trout and Lower Columbia River Chinook Salmon.[74] The Forest Service should reduce the amount of temporary roads and stream crossings in the project to better protect listed fish species.

Considering the already high road densities and highly fragmented nature of the Silver Creek subwatershed, the presence of listed fish habitat in proximity to harvest units, and the potential risk of road failure and sediment delivery to listed fish habitat, to avoid violation of ACS objective #5 and the ESA, we request that the Forest Service remove stream crossings from the proposal, or drop units with stream crossings if there is no other access alternative available. Also, the Forest Service should eliminate new and reconstructed temporary roads in the project. Since Unit 37 contains a majority of the stream crossings, we specifically request that Unit 37 be removed if no other access alternative is available.[75] We also request that Unit 28E be eliminated due to multiple stream crossings in close proximity to listed fish habitat and some stands over 175 years old.

V. Thinning in Riparian Reserves should be limited to situations where it is needed to attain ACS objectives and sufficient riparian buffers should be implemented.

The Aquatic Conservation Strategy (ACS) of the Northwest Forest Plan prohibits thinning in Riparian Reserves unless needed to attain ACS objectives. The Forest Plan allows agencies to "apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives."[76]

The Forest Service must demonstrate the scientific need for thinning treatments in Riparian Reserves to benefit aquatic and riparian resources. There are a range of scientific opinions on riparian thinning projects, but there is enough science questioning the practice that the precautionary principle should be practiced when prescribing a thinning prescription in Riparian Reserves.[77] Recent studies suggest that passive management in Riparian Reserves may be the most appropriate method to protect aquatic ecosystems.[78] Also, the Forest Service must ensure that there are sufficient buffers to protect stream shade and microclimate due to the presence of federally-listed fish populations. Anadromous fish populations require cool water throughout

[73] *Id.*
[74] *Id.* at 215.
[75] It is unclear from the maps provided in the EA where the stream crossings are in Unit 37 and whether there would be an access alternative that eliminates stream crossings.
[76] NWFP C-32
[77] See GPTF's Draft EA comments, p. 3-8 for further discussion on this issue.
[78] In a 2014 study researchers found that "allowing riparian forests to naturally develop may result in the most rapid and sustained development of structural features important to most terrestrial and aquatic vertebrates." See Pollack, Michael M. & Beechie, Timothy J., *Does Riparian Forest Restoration Thinning Enhance Biodiversity? The Ecological Importance of Large Wood*, Journal of the American Water Resources Association (JAWRA) 50(3): 543-559 (2014).

their life stages. No-cut buffers are essential to ensure sufficient stream shade. ACS objective #4 directs the Forest Service to maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Thinning in Riparian Reserves can increase stream temperatures and slow the meeting of this objective and contribute to water quality violations.

According to the EA, there are three identified 303(d) listed stream segments for water temperature in the project area: Silver Creek, Lake Creek, and Lynx Creek.[79] The proposed 100-foot riparian buffers protect the zone where most shade and woody debris recruitment is generated. However, due to the presence of listed fish species and the proposed regeneration harvest, we recommend maintaining no-cut buffers of at least 130 feet for fish-bearing streams in LSR and the full Riparian Reserve width in matrix. Also, we recommend that only standard thinning be done in Riparian Reserves, and that an equipment limitation zone be implemented 50-75' from the edge of the no-cut buffer, especially on steep and unstable slopes.

RELIEF REQUESTED

We request that the Forest Service prepare an EIS as required by NEPA with a full range of reasonable alternatives. Alternatively, the Forest Service could issue a new decision that:

- Eliminates regeneration harvest on matrix lands;
- Eliminates timber harvest, in Units 29, 38, 37, and 28E, and substitutes thinning for regeneration harvest on other matrix lands;
- Eliminates or substantially reduces timber harvest in suitable NSO nesting, roosting, and foraging habitat and marbled murrelet nesting habitat (Unit 29);
- Eliminates stream crossings, especially in proximity to listed fish habitat; and
- Reduces the amount of temporary roads, and decommissions or closes and stabilizes project area roads that are currently failing and posing risks to water quality and wildlife.

The Conservancy requests a meeting with the Forest Service to discuss potential resolution of the issues raised in this objection.

Respectfully,

Nicole Budine
Policy and Campaign Manager

[79] Revised EA at 160.