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November 30, 2023

Theresa Tanner
District Ranger
ATTN: Yellowjacket
Ranger Station
10024 US-12
Randle, WA 98377

Via project website

RE: Public Comments Yellowjacket Project Revised Environmental Assessment

Dear Ms. Tanner:

Thank you for the opportunity to comment on the Forest Service's Yellowjacket Project Revised Environmental Assessment (Revised EA). Cascade Forest Conservancy's (CFC) mission is to protect and sustain forests, streams, wildlife, and communities in the heart of the Cascades through conservation, education, and advocacy. We represent over 12,000 members and supporters who share our vision for a forest where wild places exist and wildlife thrives. CFC is supportive of many aspects of the Yellowjacket proposal, including instream restoration, beaver dam analog installation, road decommissioning, much of the huckleberry enhancement, and thinning in dense young plantation stands. We appreciate that some of our concerns were addressed by the Revised EA, but some of our major concerns have not been addressed, and a few new concerns have come to light with the updated analysis. Our concerns are addressed below by topic.

I. National Environmental Policy Act & Directive Compliance

The National Environmental Policy Act (NEPA) exists to “protect the environment by requiring that federal agencies carefully weigh environmental considerations and consider potential alternatives to the proposed action before the government launches any major federal action.”¹ The agency must analyze the “potentially affected environment and degree of the effects of the

¹ *Barnes v. U.S. Dep't. of Transp.*, 655 F.3d 1124, 1131 (9th Cir. 2011).

action.”² If the analysis shows there is a likelihood of significant effects to the environment, then an EA with a Finding of No Significant Impact (FONSI) is inadequate, and an Environmental Impact Statement (EIS) must be prepared.^{3,4}

When analyzing impacts on the environment, the agency must examine both direct, indirect, and cumulative effects.⁵ The agency must also analyze “alternatives as required by section 102(2)(E) of NEPA, and the environmental impacts of the proposed action and alternatives. . . .”⁶ Agencies must take a “hard look” at potential environmental consequences.⁷ “General statements about ‘possible effects’ and ‘some risk’ do not constitute a ‘hard look.’”⁸ If the agency’s analysis is not site-specific, then neither the decision maker nor the public can meaningfully compare the environmental impacts of the alternatives.⁹ In other words, the agency must thoroughly analyze environmental impacts before making a determination that no significant impacts exist.¹⁰

CFC believes the Yellowjacket Revised EA in its current form will not comply with NEPA unless some of the proposed project actions and analysis are amended. For example, regeneration harvest in units with several northern spotted owl (NSO) circles will impact an Endangered Species Act (ESA) listed species, likely triggering the need for an EIS.¹¹ The Revised EA also fails to take a “hard look” at impacts to water quality and is not compliant with the Clean Water Act - particularly regarding the large amount of temporary roads (>30 miles) and associated hydrologic impacts.¹² Additionally, the proposed action to regenerate mature stands is not in compliance with Executive Order 14072.¹³ Therefore, the Yellowjacket Project is unlikely to comply with NEPA and other directives without an EIS and/or amendment of the Revised EA that changes some of the proposed actions and fleshes out the analysis.

² See 40 C.F.R. § 1501.3 (a)(3) (“Is likely to have significant effects and is therefore appropriate for an environmental impact statement.”)

³ 42 U.S.C. § 4332(2)(C)

⁴ Although CEQ’s NEPA regulations have recently been amended (40 C.F.R. § 1501.3(b) (Jul. 16, 2020)), the Forest Service’s NEPA regulations still reference the ten significance factors from previous regulations. See 36 C.F.R. § 220.7(b)(3)(iii) (“Shall describe the impacts of the proposed action and any alternatives in terms of context and intensity as described in the definition of “significantly” at 40 CFR 1508.27;”). Therefore, this comment letter will still use the ten significance factors when discussing whether the project will have significant impacts on the human environment.

⁵ 40 C.F.R. § 1508.1(g)

⁶ 40 C.F.R. § 1501.5(c)(2)

⁷ *High Sierra Hikers Ass’n v. Blackwell*, 390 F.3d 630, 639–40 (9th Cir. 2004)

⁸ *Neighbors of Cuddy Mountain vs United States Forest Service*, 137 F.3d 1372 at 1380 (9th Cir. 1998)

⁹ *Southeast Alaska Conservation Council v. U.S. Forest Serv.*, 443 F. Supp. 3d 995, 1014 (D. Alaska 2020) (Court found that the EIS’s ambiguity about “location, concentration, and timing of timber harvest and road construction” violated NEPA. Also found that a “lack of site-specific information in the Project EIS, detracts from a decision maker’s or public participants ability to conduct a meaningful comparison of the probable environmental impacts among various alternatives.”); see 40 C.F.R. § 1501.5(c)(2) (requirement to examine alternatives and the environmental impacts of those alternatives in EAs)

¹⁰ *Blue Mountain Biodiversity Project v. Blackwood*, 161 F. 3d 1208, 1216 (9th Cir. 1998)

¹¹ See *Infra* section III.

¹² See *Infra* section V.

¹³ See *Infra* section II.(A)

II. Forest Health & Resilience

CFC continues to have several concerns related to forest health and resilience. Of particular concern are the inclusion of regeneration harvest prescriptions (especially in particularly unsuitable places), the need to adequately protect old-growth and other important habitat features, and whether mature stands are appropriate for huckleberry treatments or high-intensity thinning. Each topic will be addressed in more detail below.

A. Regeneration Harvest in Mature Stands

CFC is concerned with the proposed regeneration harvest on 155 acres in the Yellowjacket planning area. This would create ecological damage in the near-term, exacerbate anthropogenically-induced global warming, and in combination with expected climate change impacts, this type of action would potentially create significant cumulative impacts to habitats and species. We are particularly concerned with the inclusion of 121 acres proposed in 97-year-old stands and NSO circles.

There is no ecological need to regenerate moist forests in the 100 to 120-year-old age range; these forests are poised to be the next cohort of old-growth forests. Mechanical treatment can hinder this process, disrupt soil communities, create hotter and drier microclimates on the forest floor, and introduce non-native plants. Although we acknowledge the Forest Service's concern that these stands are at the optimum time to maximize timber volume production, the GPNF has a severe deficit of late seral habitat on the landscape. Once logged it will take another century for these stands to return to their current state and to replenish this depleted habitat. Unit 138 specifically contains stands of trees far older than the overall stand age of 97 years, with various areas containing trees over 40 inches in diameter at breast height.

Addressing the severe deficit of late seral habitat on the landscape is best achieved by accelerating conditions in young and mid-seral stands through thinning—and leaving the soon-to-be late seral forests to develop. The Yellowjacket regeneration harvest proposal notes the creation of early seral habitat as a benefit to regeneration harvest; however, this habitat does not need to be managed for additional creation, as the increased size and frequency of wildfires in the GPNF and across the west is naturally creating new patches of this type of early successional habitat. Removing late seral or soon-to-be late seral forests exacerbates the issue of dwindling and fragmented late seral forests. In particular, the old forest stands in units 138 and 128.1a are not appropriate candidates for regeneration harvest. We recommend a thinning prescription for these stands rather than a regeneration harvest prescription.

Additionally, the stated purpose and need for the regeneration in these mature stands is primarily for commercial purposes and not for creating resiliency, which is contrary to Executive Order 14072 (EO). The current policy of the Administration, through Executive Order 14072, is to “conserve America’s mature and old-growth forests on Federal lands.”¹⁴ The Executive Order

¹⁴ Executive Order 14072, Sec. 1 (April 22, 2022)

notes that the “Administration will manage forests on Federal lands, which include many mature and old-growth forests, to promote their continued health and resilience; retain and enhance carbon storage; [and] conserve biodiversity”¹⁵ Additionally, the EO goes on to require agencies to identify threats to mature and old-growth forests and develop policies to address those threats.¹⁶ Logging is a threat to mature and old-growth forests that was identified in the initial threat assessment.

Mature stands should no longer be regenerated, as managers carrying out these actions are not able to answer affirmatively to the question outlined through the direction from the Administration: Is the management action intended to create climate resilience? There is nothing in the Revised EA indicating that this particular EO was considered; climate change was not cited as a reason for the proposed action, nor should it be. The Revised EA does mention climate change concerns but explicitly states that “[c]limate change adaption is not a driver in this project.”¹⁷ CFC believes the agency must re-evaluate their commercially based purpose and need to regenerate mature stands. Under EO 14072, these proposed actions do not comply with existing directives.

B. Other Important Habitat Features & Unit Specific Comments

A 35-inch DBH limit in the proposal for all stands and a 20-inch DBH limit for LSR stands will help retain some important habitat features, but it does not go far enough in protecting intact habitat patches and contiguity. If the intention is to protect important patches, then we request the PDCs be updated to better reflect that intent. If the intent is only to protect particular large trees, then we request the agency reconsider and also protect important habitat patches and features like those we identified in our previous letter. We have included them here for ease of reference:

1. Unit 5, 9, & 12: These units are naturally regenerated, around 100-115 years old, and overlap with a NSO circle. Although we acknowledge the prescription is for a low-intensity thin, given the likely habitat values already present and growing quickly and the carbon storage in the soil and wood (which would be released during logging and the “leaky” transition to lumber products), impacts from any management is going to represent an unfortunate loss of both habitat and carbon. CFC requests a second look at the prescriptions for these stands to ensure these naturally regenerated forests stay on a trajectory towards old-growth without intensive ground disturbance.
2. Unit 69.1: On-the-ground surveys uncovered old-growth conifers (mostly Douglas-fir) in the range of 3-5 ft dbh in the western section of this unit. These findings suggest there are pockets of old-growth and mature forests in this unit. This part of the unit should be

¹⁵ *Id.* at Sec. 2.

¹⁶ “[T]he Secretaries shall: . . . develop policies, with robust opportunity for public comment, to institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth forests on Federal lands” *Id.* at Sec. 2 (c)(iii).

¹⁷ REVISED DRAFT ENVIRONMENTAL ASSESSMENT: YELLOWJACKET PROJECT, 1 (Oct. 31, 2023).

removed from the timber harvest plan, or follow-up surveys should be carried out to sufficiently map and buffer the older stands in this area.

3. Unit 76: We are glad to see that parts of unit 76 with older forests and Riparian Reserves are no longer part of the timber harvest plan, but there remains a section in the southwestern part of the unit with a varied mix of conifer species in the 3-5 ft dbh range. This section of the unit should be removed from the harvest plan.
4. Unit 112: The western and, most importantly, the central part of this three-part unit should be removed to retain older forest features and to support mature forest connectivity for wildlife (as modeled through previously published connectivity analyses).
5. Unit 129: This unit contains some cedar patches that should be retained, rock outcroppings that should be buffered, and several productive snag patches that should be protected. These various locations are located on the uphill slope just east of NF-28 around these coordinates: 46.32414, -121.89606.
6. Unit 159: Some parts of unit 159 that appear to contain old-growth forest habitats still remain in the timber harvest proposal and should be removed from the plan or thoroughly surveyed to designate sufficient no-cut buffers.

C. Huckleberry Enhancement in Mature Stands

CFC notes that the Revised EA includes a few mature stands for huckleberry enhancement, a particularly intensive form of treatment. Stands such as 162.2 and 69.2 are around 110 years old and are likely already on a trajectory towards old-growth.¹⁸ Stands like these are inappropriate for a huckleberry enhancement treatment. Further, many of these stands slated for huckleberry treatment already contain productive huckleberry habitat.

D. High-Intensity Thinning in Mature Stands

CFC notes that the Revised EA includes plans to high-intensity thin several mature stands, including but not limited to units 126, 127, 128.1b, and 129.¹⁹ A lighter touch would be more appropriate for stands of this age range.

III. Northern Spotted Owl Impacts

CFC raised concerns in our scoping comments and EA comments about regeneration harvest being proposed in units that overlap NSO circles. In the Revised EA, there are still three units, 96, 19, and 138, where the harvest prescription is for regeneration even though they overlap NSO circles. Unit 96 actually overlaps *three* NSO circles and is still slated for regeneration harvest. NSO numbers are already drastically dwindling due to the combined impact of habitat destruction and barred owl presence, and regeneration harvest exacerbates this, converting

¹⁸ See discussion on the importance of mature stands in section (II)A.

¹⁹ *Id.*

spotted owl habitat to non-habitat and potentially removing nest trees. Conducting regeneration harvest in the spotted owl's prime habitat is a heavy disturbance that will likely lead to decreased reproduction and/or site abandonment, impacting the recovery of this highly threatened species.

Appendix E - Response to Comments document and the Revised EA both acknowledge that the data regarding owl location and use in the area is unknown.²⁰ The Revised EA goes on to make several assumptions to justify regeneration in NSO circles. It seems arbitrary to select a few of these historic spotted owl locations for regeneration harvest when it is 1) unknown whether the site is being used and 2) unknown whether owls would otherwise re-colonize the area if they aren't there now. In sum, the decision to regenerate in NSO circles seems to rest on faulty logic and very little actual data.

As we noted before, possible impacts on a federally listed species, especially given the intensity of the harvest prescriptions, suggest that an EIS is required. Both the old regulatory definition of significance, which is still cited in current NEPA Forest Service regulations, and the new regulations discuss the need for an EIS when ESA species might be impacted.²¹ Therefore, regeneration prescriptions - especially when overlapping three NSO circles in the same unit - require the development of an EIS or a change to a less heavy management prescription, like thinning to 60%-70% canopy cover.²² CFC requests the Forest Service avoid regeneration harvest within and near all NSO circles and maintain at least 60% canopy cover in any units containing or overlapping NSO circles.

IV. Impacts to Cascade Torrent Salamanders from Thinning for Huckleberry Enhancement

The Revised EA notes that the Cascade torrent salamander, a Forest Service sensitive species that is under ESA review, has been found in the mainstem and headwaters of Pinto Creek. The Revised EA also notes that several studies have looked at the impacts harvest has on aquatic salamanders and suggests that they are "not associated with forest canopy cover conditions but rather the consequences of harvest activities to stream habitats, including increasing stream

²⁰ "Therefore, the current status of spotted owls in this landscape is unknown." REVISED DRAFT ENVIRONMENTAL ASSESSMENT: YELLOWJACKET PROJECT, 27 (Oct. 31, 2023).

²¹ See 40 C.F.R. § 1508.27(b)(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" cited by 36 C.F.R. § 220.7(b)(3)(iii)); see also 40 CFR 1501.4 (b)(1) (Discussing what to examine when determining significance: "In considering the potentially affected environment, agencies should consider, as appropriate to the specific action, the affected area (national, regional, or local) and its resources, such as listed species and designated critical habitat under the Endangered Species Act.")

²² U.S. FOREST SERVICE: PACIFIC NORTHWEST RESEARCH STATION, SYNTHESIS OF SCIENCE TO INFORM LAND MANAGEMENT WITHIN THE NORTHWEST FOREST PLAN AREA (2018) ("Only two studies (Miller et al. 1997, Sovern et al. 2015) have empirically studied forest-type selection during juvenile dispersal. Both studies found that juveniles strongly select for old forest with closed canopy (>70 percent canopy cover)"); U.S. FISH & WILDLIFE SERVICE, REVISED RECOVERY PLAN FOR THE NORTHERN SPOTTED OWL (2011) ("several published studies concluded that nesting spotted owls strongly select for areas with canopy cover >70% and many large trees nearby and strongly select against areas with lower amounts of canopy cover and few or no large trees nearby.")

temperatures, increasing sedimentation and possibly peak flow events.”²³ Cascade torrent salamanders spend most of their life in headwater streams (both intermittent and perennial), seeps, and springs, and they utilize streamside forests and talus areas as adults.²⁴ Therefore, they have the potential to be affected at multiple life stages by harvest activities and/or road construction, especially in areas like the steep, headwater slopes of the Pinto Creek watershed, which are currently proposed for treatment.

Washington Department of Wildlife outlines conservation concerns of the species:

This salamander is sensitive to temperature variation and increased sedimentation that may be caused by disturbances, such as logging and road construction. Some populations of Cascades torrent salamander are isolated by surrounding areas of unsuitable habitat and are vulnerable to extirpation through stochastic events exacerbated by habitat loss. Temperature sensitivity and limited dispersal ability makes this species potentially sensitive to climate change.²⁵

Many studies have been conducted on the impacts of timber harvests on stream-dwelling amphibians. A review of management approaches for streams and riparian areas by Olson et al. (2007) highlights the importance of riparian buffers, especially for species that occur in patchy populations like the torrent salamander.²⁶ Martin et al. (2021) compiled evidence-based reviews on the effectiveness of riparian buffers for maintaining stream-dwelling amphibian populations. They found that aquatic salamander populations greatly benefit from no-cut buffers.²⁷ Olson and Ares (2022) examined the effect of riparian buffers five years post-harvest and found that amphibian populations were higher in headwater streams with ~70m buffers and noted specifically that torrent salamander populations were positively associated with streams in unmanaged control units.²⁸

²³ REVISED DRAFT ENVIRONMENTAL ASSESSMENT: YELLOWJACKET PROJECT, 28 (Oct. 31, 2023).

²⁴ CHARLOTTE CORKRAN & CHRIS THOMS, AMPHIBIANS OF OREGON, WASHINGTON AND BRITISH COLUMBIA: A FIELD IDENTIFICATION GUIDE (3rd ed. 2006).

²⁵ *Cascade torrent salamander*, Washington Depart. Of Fish & Wildlife, <https://wdfw.wa.gov/species-habitats/species/rhyacotriton-cascadae> (last visited Nov. 27, 2023).

²⁶ Deanna H. Olson et. al., *Biodiversity management approaches for stream-riparian areas: Perspectives for Pacific Northwest headwater forests, microclimates, and amphibians*, 246 FOREST ECOLOGY & MGMT. 81–107 (2007).

²⁷ Douglas J. Martin et al., *An evidence-based review of the effectiveness of riparian buffers to maintain stream temperature and stream-associated amphibian populations in the Pacific Northwest of Canada and the United States*, 491 FOREST ECOLOGY & MGMT. 119190 (2021).

²⁸ Deanna H. Olson & Adrian Ares, *Riparian buffer effects on headwater-stream vertebrates and habitats five years after a second upland-forest thinning in western Oregon, USA*, 509 FOREST ECOLOGY & MGMT. 120067 (2022).

The Wildlife Report notes that the proposed action includes a “high amount of huckleberry treatments in the Pinto Creek subwatershed,” which is an area where this species has been found.²⁹ Given the sensitivity of the Cascade torrent salamander to harvest activities (especially intensive prescriptions as seen with thinning for huckleberry enhancement) and the steepness of slopes within the Pinto Creek drainage, the size of no-cut buffers is critically important. CFC is supportive of the proposed no-cut buffers for these units (180’ from each side) and feels that a no-cut buffer smaller than this will not be sufficient to protect the Cascade torrent salamander.

To preserve habitat and enhance both aquatic and terrestrial connectivity for the Cascade torrent salamander, we suggest that the intermittent streams adjacent to known populations of the Cascade torrent salamander that flow within the proposed units in the Pinto Creek watershed also receive at least a 100’ no-cut buffer. WDFW notes that “stream buffers presented in the literature for controlling sediment range from 30-88 m (100-289 ft).”³⁰ Torrent salamanders have been known to utilize the hyporheic zone within intermittent streams.³¹ Olson and Weaver (2007) found a strong association of the Cascade torrent salamander with intermittent streams, suggesting that expansion of stream buffers into areas with discontinuous flow could be advantageous for this species.³² The impacts of climate change will likely result in a reduction of available habitat for salamanders, and the potential negative effects of sedimentation and peak flow events caused by timber harvests could exacerbate these impacts. Nijhuis and Kaplan (1998) observed small-scale movement patterns among Cascade torrent salamander populations and posits that in the event of habitat alteration within an ideal habitat, the dispersion of individuals to undisturbed habitats could prove challenging, if not impossible.³³ Leaving wider no-cut buffers along the waterways around Pinto Creek and Stepladder Creek will mitigate negative impacts from climate change and logging in surrounding areas and help retain and expand habitat connectivity.

²⁹ JOHN JAKUBOWSKI, YELLOWJACKET BIOLOGICAL EVALUATION, 16 (Oct. 2023).

³⁰ WASH. DEPT. FISH & WILDLIFE, MANAGEMENT RECOMMENDATIONS FOR WASHINGTON’S PRIORITY SPECIES, VOLUME III: AMPHIBIANS AND REPTILES 122 (1997).

³¹ Deanna H. Olson, & George Weaver, *Vertebrate assemblages associated with headwater hydrology in western Oregon managed forests*, 53.2 FOREST SCIENCE 343-355 (2007); BETSY L. HOWELL & NICOLE M. MAGGIULLI, USDA FOREST SERVICE REGION 6 AND USDI BUREAU OF LAND MANAGEMENT INTERAGENCY SPECIAL STATUS AND SENSITIVE SPECIES PROGRAM, CONSERVATION ASSESSMENT FOR THE CASCADE TORRENT SALAMANDER (*RHYACOTRITON CASCADAE*) (2011).

³² See Olson & Weaver, *supra* note 31.

³³ Michelle J. Nijhuis, & Robert H. Kaplan, *Movement Patterns and Life History Characteristics in a Population of the Cascade Torrent Salamander (*Rhyacotriton cascadae*) in the Columbia River Gorge, Oregon*, 32 J. OF HERPETOLOGY 301-304 (1998).

V. Impacts to Waterways & Fisheries Analysis Insufficient

CFC is concerned about the quality of analysis done regarding temporary roads and whether impacts to waterways in the project area have been adequately studied. The Revised EA notes that “a logging systems specialists [sic] developed a possible temporary road system as a proxy for potential impacts,” and the analysis to determine whether there are meaningful impacts was done on the 5th field watershed scale.³⁴ A more robust water quality and hydrology analysis is warranted due to A) the size of the proposed temporary road system (~42 miles), B) the large amount of thinning proposed that will decrease canopy cover at or below 40%, and C) the 303(d) listed waterways in the project area. In short, we believe the Forest Service has not taken a “hard look”, has not conducted a meaningful alternatives analysis, and has interfered with the public and decision-makers’ “ability to conduct a meaningful comparison of the alternatives,” all of which put this Revised EA in violation of NEPA.³⁵

First, the hydrologic specialist report analyzes impacts at a scale that is far too large, failing to consider site-specific impacts as required under NEPA. For example, Stepladder Creek is mentioned in the hydrologic report briefly, but impacts to this drainage are not truly analyzed even though at least 453 acres of its 678 acres are proposed for high-intensity logging (including regeneration harvest, huckleberry enhancement, and high-intensity thin). That means 67% of the entire drainage is slated to be thinned to canopy cover ranges under 40%. Grant et al. (2008) peak flow response analysis at the site-scale predicts that peak flows will increase in rain-dominated zones (<1000 ft elevation) if more than 45% of the canopy is removed from the site. Using their response line model, the mean and max response lines (see Figure 1 -excerpt from Grant et al. 2008) show that in rain-dominated zones (of which Stepladder Creek is a part), when 70% of the canopy is harvested (lower end canopy removal for huckleberry thin), the increase in peak flows could be anywhere between 18-27%. For stands that have 85% harvested (higher end of canopy removal for huckleberry thin and average removal for regeneration harvests), the percent change in peak flows could be anywhere between 23-33%. This trend (i.e., more canopy removed = more change to peak flows) is similar to a global data set for peak flow increases attributed to forest harvest previously analyzed by Guillemette et al. in 2005.³⁶

The hydrology report and Revised EA do not look at peak flows or sediment delivery at the site scale³⁷ (which would be Stepladder Creek and/or Pinto Creek) but instead roll its impacts into a larger watershed, diluting the true impacts of the project. The FS must do site-specific analysis at

³⁴ REVISED DRAFT ENVIRONMENTAL ASSESSMENT: YELLOWJACKET PROJECT, 21 (Oct. 31, 2023)

³⁵ See *Southeast Alaska Conservation Council v. U.S. Forest Serv.*, 443 F. Supp. 3d 995, 1014 (D. Alaska 2020) (finding a lack of site-specific information in and EIS constrained the both the public and decisionmakers ability to consider the project’s impacts and therefore violated NEPA)

³⁶ Guillemette et al., *Rainfall generated stormflow response to clearcutting a boreal forest: peak flow comparison with 50 world-wide basin studies*, 302 J. OF HYDROLOGY 137-153 (2005).

³⁷ GORDON E. GRANT, U.S. FOREST SERVICE PACIFIC RESEARCH STATION, EFFECTS OF FOREST PRACTICES ON PEAK FLOWS AND CONSEQUENT CHANNEL RESPONSE: A STATE-OF-SCIENCE REPORT FOR WESTERN OREGON AND WASHINGTON 14, 37 (2008) (notes that “site scale” for hydrologic analysis is (area <10 km²) or drainages and catchments)

the drainage level, including hydrologic analysis and examine impacts to fisheries and water quality, for the EA to be in compliance with NEPA. Although the Revised EA acknowledges, “[a]reas thinned to a canopy closure of less than 40 percent are considered hydrologically immature and therefore would potentially contribute to increased runoff . . .”³⁸ due to the scale of the analysis it concludes “[t]he limited number of treatment units with less than 40% canopy cover show little risk of overall change to peak flows at the subwatershed scale.”³⁹ This conclusion seems questionable when 38% of all units (37 out of 131 units) proposed for treatment are proposed to lower the canopy to 40% or below. This is not a “limited number,” and second, this analysis fails to consider cumulative impacts from multiple intensive treatments in smaller, connected drainages and how that might impact water quality and fisheries. For example, as noted above in the Stepladder Creek drainage, it appears that everything but the Riparian Reserves will be impacted by a very intensive and large logging prescription (as shown in Figure 2 attached). The cumulative impacts on water quality and fisheries in this area are likely significant, and the Revised EA should have analyzed impacts at this scale to allow the public to weigh in on the true impacts of the proposal. CFC only pieced together the possible scale of impacts to Stepladder Creek by noting a small mention in the hydrology report and GIS examination, not the Revised EA. Conducting the analysis at the 5th field watershed scale creates “ambiguity” in the Revised EA and hydrology report and prevents the public from providing meaningful feedback on the proposed harvest and alternatives in this area in violation of NEPA.⁴⁰ Additionally, Grant et al. (2008) note, “small watershed studies represent the best and in many cases only means of quantifying the effects of forest practices on streamflow, particularly when combined with modeling or field-based process studies.”⁴¹

Second, impacts to water quality are not fully analyzed in the Revised EA, or at the very least, that analysis was not made available to the public in the project files. The fisheries specialist report was not included in the Revised EA files, although it was referenced in the Revised EA as a project document. From the Revised EA and available specialist reports, it is difficult to determine the true impacts that temporary roads will have on waterways. Although a table is provided in the hydrologist report outlining the number of expected stream crossings for temporary roads, the locations of those proposed roads are not included in the project maps, meaning the analysis is conducted at a coarse level and is not site-specific. The need for the temporary roads analysis to be site-specific is critically important here, given the presence of 303(d) listed waterways and a 4(b) plan for Yellowjacket Creek - neither of which are mentioned in the Revised EA. Compliance with the 4(b) plan will likely require closure or decommissioning of roadways. Reopening these roads near listed waterways may not be in compliance with the Clean Water Act. In addition to other stated deficiencies, the EA should address which actions

³⁸ *Id.* at 22.

³⁹ REVISED DRAFT ENVIRONMENTAL ASSESSMENT: YELLOWJACKET PROJECT, 32 (Oct. 31, 2023)

⁴⁰ See 40 C.F.R. § 1501.5(c)(2) (requirement to examine alternatives and the environmental impacts of those alternatives in EAs)

⁴¹ GORDON E. GRANT, U.S. FOREST SERVICE PACIFIC RESEARCH STATION, EFFECTS OF FOREST PRACTICES ON PEAK FLOWS AND CONSEQUENT CHANNEL RESPONSE: A STATE-OF-SCIENCE REPORT FOR WESTERN OREGON AND WASHINGTON 18 (2008)

from the 4(b) plan will be undone by the proposed action and how the proposal will impact 303(d) listed waterways (as shown in Figure 4 attached).⁴²

Of particular concern to CFC is the potential use of decommissioned forest roads 051 and 052, stemming from 2810 road (as shown in Figure 3 attached). These roads would cross several tributaries and the mainstem of Yellowjacket Creek, exacerbating temperature and sedimentation issues. Given the impaired history of this waterway, a temporary road system that crosses at least six waterways in a relatively close area is problematic. This issue also illustrates the problems with the water quality analysis and hydrologic analysis in the Revised EA. The potential impacts to Yellowjacket Creek in the area depicted below in Figure 3 are not analyzed at the site-specific scale, which means the current analysis does not constitute a “hard look” under NEPA and does not provide the public with the ability to provide meaningful feedback on the alternatives. Although these decommissioned roads would be temporary in nature, they will likely remain open for multiple years and through winter and spring flows, when serious issues can arise from washouts and general sediment delivery. Additionally, the Forest Service has the data and information, particularly with regard to Yellowjacket Creek, to conduct site-specific analysis as required to pass the “hard look” test.

Finally, many of the huckleberry treatments in the Pinto Creek drainage, particularly around Stepladder Creek, may be hard to access. The area is steep and remote. Given all of the likely negative impacts to water quality, the Forest Service may determine that these areas do not make sense for huckleberry enhancement - which in this land allocation requires there to be a recreational purpose to the treatment.

In sum, CFC requests that the agency 1) supplies a sufficient analysis within the specialist reports, 2) updates the Revised EA to include site-specific water quality and hydrology impacts - including temporary road impacts at the site-specific scale, 3) reduce the spread and intensity of logging in the Stepladder Creek drainage, 4) drops some of the units stemming from the 2810 road (051 and 052 roads) to lessen impacts to waterways - in particular to Yellowjacket Creek, and 5) ensure that the expected degradation from logging and road construction do not violate the Clean Water Act.

VI. Huckleberry Enhancement in AWA Land Use Allocation

Although CFC is generally supportive of huckleberry enhancement work, we are concerned with the number of acres within an Administratively Withdrawn Area that are being slated for huckleberry enhancement. Since this type of treatment is supposed to be for recreational purposes, we expected to see more information about the need or expected use in this steep and difficult-to-access location to justify the level of huckleberry treatment being proposed. Did the

⁴² The Revised Draft EA does not mention the 303(d) list nor does it include a discussion on Clean Water Act compliance. Water quality is only briefly mentioned in the Revised EA: “[n]o negative long-term effects and slight positive effects may result from improved water quality.” REVISED DRAFT ENVIRONMENTAL ASSESSMENT: YELLOWJACKET PROJECT, 40 (Oct. 31, 2023)

Forest Service conduct an expected use analysis or accessibility analysis for the huckleberry units to justify the amount of treatment being proposed?

VII. Off-Road Vehicle Access

CFC is supportive of the Forest Service's decision to remove the proposed new ORV route from the Yellowjacket proposal. The Revised EA identifies correctly that not enough analysis was done to support a NEPA decision on this issue. We agree with this determination and hope the finalized Revised EA retains the decision to not include a new ORV route.

VIII. Decommissioning of Roads

CFC is disappointed to see the proposed decommissioning mileage decrease from 33 miles to 11.35 miles. Decommissioning roads and returning these forest areas to a more natural state is important work that has a particularly positive impact on waterways and wildlife. We understand the difficult role in balancing access and ecological impacts, but with the high abundance of roads on the GPNF and the difficulty in maintaining them, it only makes sense to strategically reduce road mileage on the Forest.

IX. Instream Restoration

CFC continues to be pleased to see instream restoration, such as the creation of artificial beaver dams at Beetree Pond and the rerouting of FR 2801 away from the Cispus River floodplain as part of the Yellowjacket project. Both of these project subcomponents, as well as other instream restoration included in the project, are critical for restoring habitats in the system and helping adapt the project area for a changing climate. CFC is very supportive of these project components and commends the Forest Service for carrying them forward from scoping into the Revised EA.

X. Conclusion

In conclusion, although we support many aspects of the proposal - thinning in young plantation stands, instream restoration, much of the huckleberry enhancement, and road decommissioning - CFC believes the Revised EA needs amendments to be compliant with NEPA and other directives. In particular, we remain concerned with some of the prescriptions in the proposal, including regeneration harvest, intensive logging in NSO circles, logging in high-quality mature forest habitats, high-intensity huckleberry thinning where a sensitive species resides, the insufficient analysis of hydrologic and other water quality impacts, and the extensive use of the huckleberry enhancement prescription in an Administratively Withdrawn Area.

Thank you for the opportunity to comment on the Yellowjacket Project Revised Environmental Assessment. Cascade Forest Conservancy looks forward to continuing to work with you on this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'AS', with a stylized, elongated horizontal stroke extending from the 'S'.

Ashley Short
Policy Manager, Cascade Forest Conservancy
Ashley@cascadeforest.org

Figure 1: Response line analysis by Grant et al. 2008, based on numerous studies on the effects of timber harvests on peak flows. Orange points mark the mean and max change in peak flow for 85% canopy removal. Red points mark the mean and max change in peak flow for 70% canopy removal.

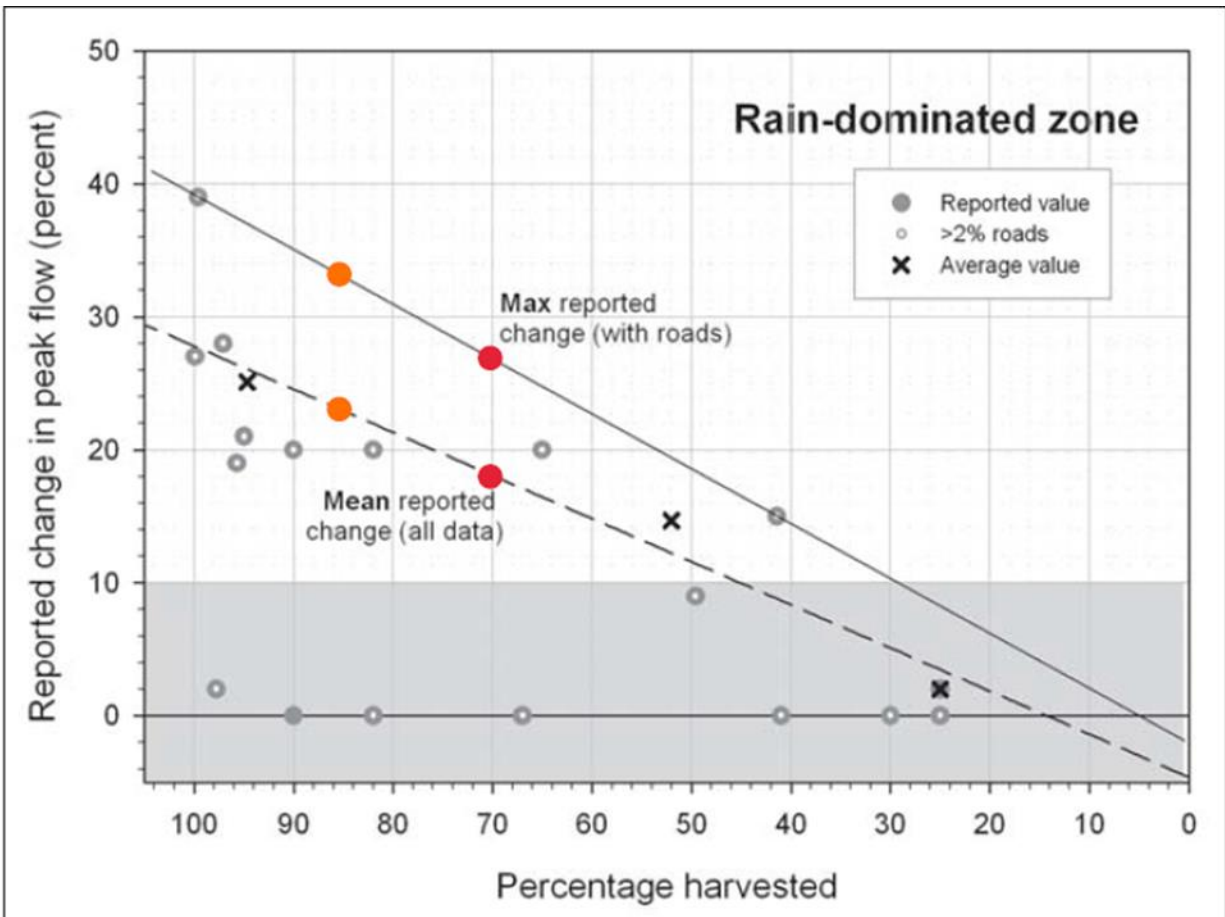


Figure 9—Peak flow response to harvest in the rain-dominated hydrologic zone. Solid line represents maximum values reported and includes the influence of roads. Dashed line is a linear fit through the average values from figure 8c, and represents the mean reported change for all data. Gray shading around zero indicates limit of detection (± 10 percent).

Figure 2: A snapshot of the Pinto Creek and Stepladder Creek drainages showing the intensity of harvest in this area, as well as previously decommissioned roads (in red), some of which are proposed as routes for new temporary road construction (Revised EA notes decommissioned road likely to be used as temporary roads)

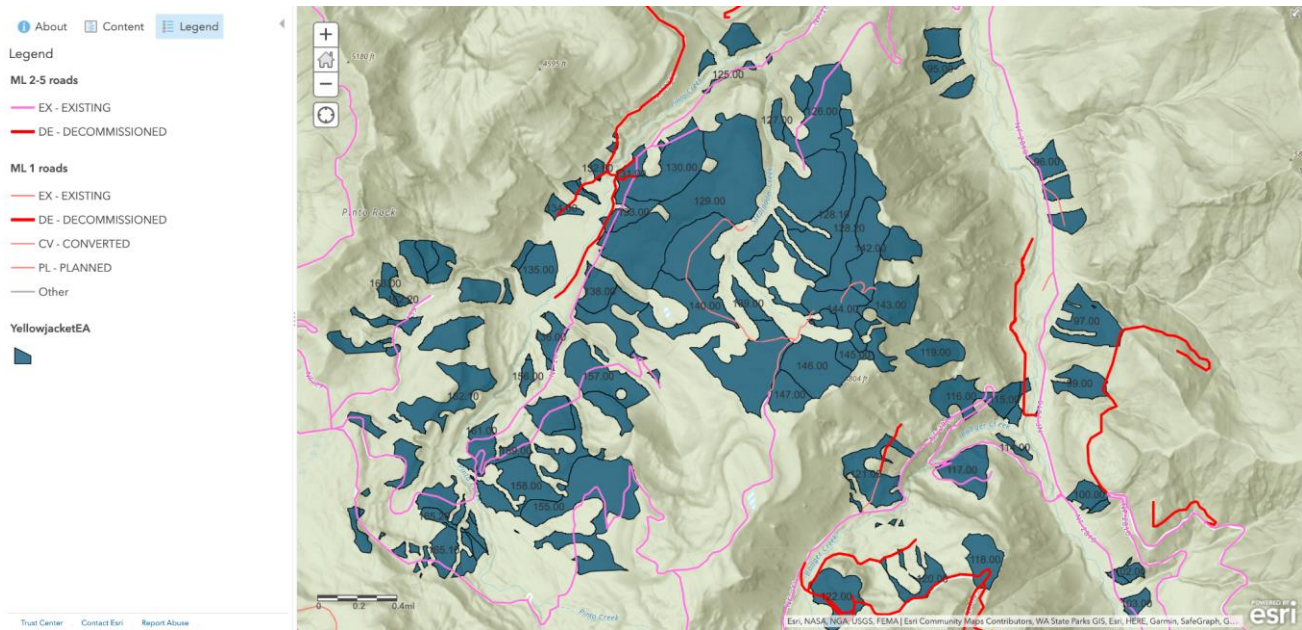


Figure 3: A snapshot of the southern part of the project area showing proposed timber harvest units and roads, including previously decommissioned roads (in red), some of which are proposed as routes for new temporary road construction (Revised EA notes decommissioned road likely to be used as temporary roads)

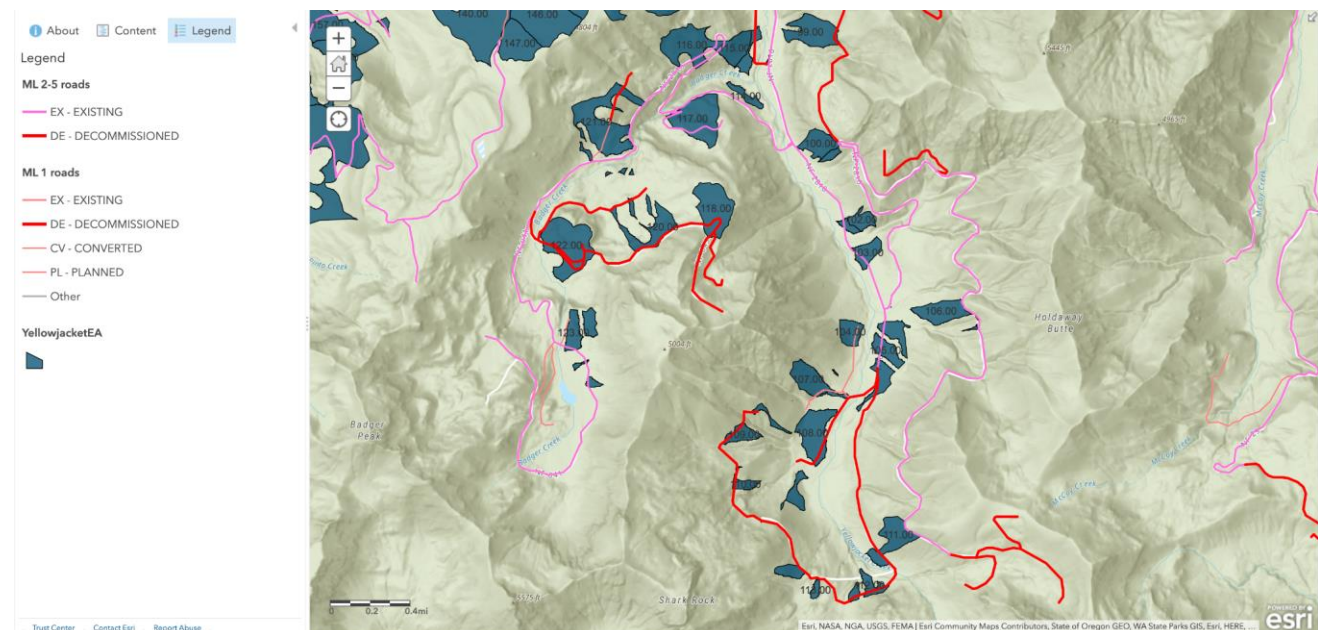


Figure 4: 303(d) Listed Waterways in the Project Area

