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District Ranger
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Willamette National Forest
57600 McKenzie Hwy
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Forest Supervisor
Reviewing Officer
Willamette National Forest
Attention: Objections
3106 Pierce Parkway, Suite D
Springfield, Oregon 97477

DOCUMENT TITLE: Flat Country Project Objection

PROJECT DESCRIPTION: The Forest Service has a decision selecting Modified Alternative 2. From the Record of Decision: The Modified Alternative 2 would allow harvest on 4,438 acres in the project area. Harvest treatments would include thinning, gap creation, dominant tree release, regeneration harvest, and skips. Harvest treatments would occur in stands ranging in age from approximately 27-150 years old and yield approximately 102 million board feet of timber. Post-harvest fuel treatments include pile and burn and post-harvest underburn. Approximately 10.3 miles of temporary road construction would occur and approximately 130 miles of existing road would be maintained.

PROJECT LOCATION: Willamette National Forest, McKenzie River Ranger District

NAME AND TITLE OF RESPONSIBLE OFFICIAL:

Darren Cross
District Ranger
McKenzie River Ranger District
Willamette National Forest
57600 McKenzie Highway
McKenzie Bridge, OR 97413
541-822-7200

LEAD OBJECTOR: Cascadia Wildlands

Cascadia Wildlands and Oregon Wild request to meet to discuss potential resolution of this objection.

Re: OBJECTION- Flat Country Project

To the Objection Reviewing Officer

Cascadia Wildlands and Oregon Wild ("Objectors") respectfully submit these objections to the U.S. Forest Service's Draft Record of Decision ("DROD") and Final Environmental Impact Statement ("FEIS") for the Flat Country Project. In the DROD, Darren Cross, the Responsible Official, decided to implement a modified alternative 2. This alternative will treat approximately 4,438 acres in the project area in stands as old as 150 years old. This alternative also authorized the construction of 10.3 miles of temporary roads.

As required by 36 C.F.R. § 218.8(d), the lead objector's name, address, telephone number, and email address:

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1. Interest and participation of the objecting party.

Cascadia Wildlands is a non-profit corporation headquartered in Eugene, Oregon, with approximately 10,000 members and supporters throughout the United States. Cascadia Wildlands educates, agitates, and inspires a movement to protect and restore wild ecosystems in the Cascadia Bioregion, extending from Northern California up into Alaska. Cascadia Wildlands envisions vast old-growth forests, rivers full of salmon, wolves howling in the backcountry, and vibrant communities sustained by the unique landscapes of the Cascadia Bioregion. Cascadia Wildlands' members have enjoyed and will continue to enjoy the recreational opportunities provided within the area.

Oregon Wild is a non-profit corporation with approximately 20,000 members and supporters throughout the state of Oregon and the Pacific Northwest. Oregon Wild and its members are dedicated to protecting and restoring Oregon's wild lands, wildlife, and waters as an enduring legacy. Oregon Wild's staff and members regularly visit the Flat Country area and surrounding federal lands and seek to ensure that the Forest Service faithfully and fully implements and complies with federal law in managing the natural resources of the Project area as a means of protecting their interests. Oregon Wild's staff and members hike, bike, photograph scenery and wildlife, use, and engage in other vocational, scientific, and recreational activities in and around the Flat Country Project area. Oregon Wild's staff and members derive recreational, inspirational, scientific, and aesthetic benefit from their activities within the Flat Country Project area. Oregon Wild's staff and members intend to continue to use and enjoy the Flat Country Project area and surrounding forested lands, waters, and trails frequently and on an ongoing basis in the future.

2. Issues of the decision to which the objection applies.

Objectors believe the Forest Service's decision, including the Draft ROD and FEIS, violates numerous laws, regulations, and policies, including but not limited to:

- a. Articulates a flawed purpose and need statement.
- b. Failure to use the most recent and best available science.
- c. Failure to consider an adequate range of alternatives.
- d. The project fails to analyze project impacts to recreation.
- e. The scale of proposed road construction goes beyond the means necessary.
- f. The project fails to take a "hard look" at the indirect, direct, and cumulative impacts of the project.

OBJECTION POINTS

a. The Forest Service articulates a flawed statement of purpose and need.

In the comments, the objectors highlighted concerns with the excessive timber volume the Forest Service intends to harvest. The draft ROD claims the intent of this project is to contribute to the stability of local, regional, and national economies as well as the Probable Sale Quantity (PSQ) for the Forest to meet the strategic goal of providing and sustaining benefits to the people of the United States. However, the actions of the project seek to harvest much of the old-growth forest in the project area and thus diminishing much of the recreational aspect of the land that people so love.

What little science is used to back up the active management to improve stand conditions portion of the purpose and need section is flawed and outdated. From this notion, the Forest Service derives a misleading purpose and need statement that they seemingly use to justify the mass harvest of the project area. Vague and misleading statements claiming the stands to be "overstocked" attempts to portray the project area as an unhealthy habitat in need of timber harvest. This is misleading and untrue. The rationale for this decision is based off of mitigating factors that do not tell the full story such as the stand density index. SDI is an important factor in determining the proper actions, but it is not the only. The Forest Service bases its decision to log "overstocked" area's of the SDI but fails to take into account important factors such as the tree species. The Forest Service uses the SDI to create a baseline by analyzing it through the lens of the dominant tree in the area, the Douglas-fir, but does not take into account other species.

The project's reasoning behind the intended harvest of "overstocked" stands is backed by no scientific support. The Forest Service attempts to paint the image that stands within the project area are not naturally occurring or naturally thriving. Simply put, the Forest Service is justifying their intent to harvest old-growth portions due to their belief that the area is "overstocked" as a result of "planting densities after clearcuts, and fire suppression."¹ From field checks, research has been gathered to show this is simply not true. It was consistently observed that natural openings are forming even in areas of concern.

b. Failure to use the most recent and best available science.

NEPA requires federal agencies to rely upon "high-quality information," "accurate scientific analysis" 40 C.F.R. § 1500.1(b), and "full and fair discussion of significant environmental

¹ DEIS comments, pg. 3

impacts," 40 C.F.R. § 1502.1. The scientific information upon which an agency relies must be of "high quality because accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1151 (9th Cir. 1998) (internal quotations omitted); see also Portland Audubon Society v. Espy, 998 F.2d 699, 703 (9th Cir. 1993) (overturning decision which "rests on stale scientific evidence, incomplete discussion of environmental effects... and false assumptions")

The National Forest Management Act's (NFMA) implementing regulations require the consideration of the "best available science" for all site-specific projects. 36 C.F.R. § 219.11 (2008); 36 C.F.R. § 219.35(d)(2000). Under the 2008 NFMA regulations, this requires documenting "how the best available science was taken into account in the planning process within the context of the issues being considered;" and "that the science was appropriately interpreted and applied." 36 C.F.R. § 219.11(a).

40 CFR 1500.1(b) "The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."

40 CFR 1502.24 "Agencies shall ensure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements."

The Forest Plan used for this project is old and has not been updated for several decades. Over the past decade's science has continued to evolve and new discoveries have been made. The Forest Service, in places, uses recent studies to supplement where the forest plan lacks but still fails in certain areas to present the best available science possible.

Again, SDI is a process created in 1933 that focuses on the most common aspects of the forest. Wouldn't it be more beneficial and effective to take into account site-specific factors as opposed to generalizations? Much like the forest plan, better science could be used to supplement the knowledge an SDI provides us. There is surely a better way to provide more accurate information regarding specific areas.

In other areas, such as unit 1590, there are important species to protect. *Rhyacophila chandleri* is a caddisfly that will be affected by the projects' work. It is important to note that caddisfly and other biological matter in small headwater streams provides food for fish throughout the system. The Forest Service intends to move on with the project even though they clearly have very little if any scientific knowledge about the species and the effects the project will have on it and in turn the fish downstream. To make an effective decision studies should be completed to better understand this species and the effects the project will have on it and the surrounding environment.

Additionally, this is elaborated upon below, but Objectors also believe the Forest Service is not incorporating or weighing scientific evidence pertaining to the fire implications of converting mature forests into plantations.

c. Failure to consider an adequate range of alternatives and a comprehensive "hard look."

NEPA mandates that an agency "shall to the fullest extent possible: use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." 40 C.F.R. § 1500.2(e). NEPA also requires the USFS to "study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of 40 C.F.R. § 1501.2 (c)." *Id.*

Environmental analysis documents must "[r]igorously explore and objectively evaluate all reasonable alternatives" to the project. 40 C.F.R. § 1502.14(a). The Council on Environmental Quality (CEQ), which promulgated the regulations implementing NEPA, characterizes the discussion of alternatives as "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. A decisionmaker must explore alternatives in sufficient enough detail to "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public." *Id.* § 1502.14. All reasonable alternatives must receive a "rigorous exploration and objective evaluation..., particularly those that might enhance environmental quality or avoid some or all of the adverse environmental effects." *Id.* § 1500.8(a)(4). The analysis of the alternatives must be "sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative." *Id.*

The Forest Service has failed to consider a reasonable range of alternatives in terms of thinning and logging intensity and in addition, has failed to explain the rationale for the prescriptions chosen. The EIS fails to analyze a proper alternative from a silviculture perspective. Light thinning is a very effective method as opposed to a heavy shelterwood harvest. Much like the issue discussed concerning the use of SDI, the forest contains many different tree species that benefit from different methods. For example, unit 1690, a 38-year-old unit would better benefit from light thinning as opposed to the shelterwood harvest.

It is important to consider lighter thinning alternatives to adequately determine what the best decision for the wilderness would be. The heavy thinning is intended to create less competition between trees, but it is noted that a lighter thinning accompanied by tree competition may prove to be effective in stabilizing the health and density of a forest.

Throughout the EIS there is no alternative provided for fuel reduction. The Forest Service responded to this concern by explaining that "fuels reduction treatments were designed to provide containment lines to keep wilderness fires from spreading to the general forest. The long term intent is to connect these treatments with additional roadside treatments in other projects aid in compartmentalizing fire through the Forest as a whole."² The Forest Service is simply expressing that they intend to manipulate the fuels treatment on the go as they feel necessary. This "go with the flow" attitude is not acceptable when in this circumstance. The Forest Service must adequately consider several fuels reduction alternatives to deal with the present state of the forest. Additionally, the Forest Service could have considered alternatives that did not increase fire hazard in this region by creating plantations through regeneration harvest, but this issue was given short thrift and never meaningfully considered in the first place.

² FEIS comments at 303

Although certain alternatives were not looked into due to disclosed funding, an alternative that analyzes actions such as the meadow enhancement, fall and leaves in riparian areas, and maximum road decommissioning should still be analyzed in order to adequately compare all alternatives and give the public a true perspective of the decision being made.

The EIS lacks in the sense it does not consider a range of alternatives dealing with the different issues concerning road work and the decommissioning thereof. There are no alternatives considered that involve no additional construction of roads. The Forest Service admits that Helicopter logging is an option that would prevent the need for road construction. Couldn't an alternative around this logging method be drafted to make an accurate comparison? In both alternatives 2 and 3, there are 15 miles of road proposed for decommissioning even though the RIS analyzed 41.8 miles of road that had the potential to be decommissioned. An alternative should be compared that analyzes the effect of decommissioning more roads and presenting a determination as to why more can't.

The Forest Service, through the EIS, is required to provide the public with a means to adequately compare alternatives to be properly informed during the decision-making process. The EIS does not effectively compare the alternatives against each other. Site-specific information must be given in order to adequately understand what measures and actions are being taken. The EIS fails to be precise when it comes to its site-specific analysis and therefore fails to provide adequate comparison of the alternatives.

The FEIS does disclose that the project will adversely modify Spotted Owl habitat within 0.5-mile nest cores and 1.2-mile home ranges. The Forest Service has already shown that they are willing to forego actions such as fuels treatments in the Spotted Owl core area, it only makes sense they also forego commercial logging. An alternative that takes owl precautions into account, if reasonable, should be looked into.

Overall the EIS does not provide an adequate range of alternatives. The lack of this range does not enable the public and decision-makers to make informed opinions on the actions to be taken. The alternatives analysis should be revisited to better encompass the project in its entire detail.

The Forest Service has skirted its NEPA obligation and instead violated the very purpose of NEPA's alternative analysis requirement, which is to foster informed decision-making and full public involvement. 42 U.S.C. §§ 4331, 4332(2)(E); 40 C.F.R. § 1508.9(b).

Suggested Resolution: Revise the FEIS to consider a reasonable range of alternatives concerning the proposed road activities and site-specific stand conditions. Specifically, a no roads alternative.

d. The project fails to analyze project impacts to recreation and scenic quality.

The FEIS addresses only the negative impacts as they are concerned with recreational travel. This analysis neglects to discuss the recreational impacts that many derive from the forested area itself but instead focuses on the recreational disruption that will occur from roadwork. The

project area contains beautiful recreational attractions such as the McKenzie River, Mt. Washington Wilderness, scenic byways, springs, and multiple public and private campgrounds. The project analysis fails to consider the effects it will have on recreational activities such as mushroom hunting, berry picking, and hunting and fishing access.

The recreational activities that are adversely affected by this project provide economic and social benefits to those who utilize the area. Many members of the community surrounding the project area have built their livelihoods around the recreational activities offered by the project area such as fishing, horseback riding, and rental cabins. Under Executive Order 12962: Recreational Fishing, government agencies are required to strengthen efforts to improve fisheries conservation and provide for more and better recreational fishing opportunities.³ While there are some areas of this project we agree within this respect, there are still areas that provide us with much concern especially in areas such as Unit 360 and 1960 which are both adjacent to Chinook Salmon's critical habitat. Unit 360 is adjacent to very steep hills, generally 50-55 degrees, and is currently subject to 125' riparian buffer on the streams going down the hill but doesn't buffer along Scott Creek itself. It's hard to imagine that with such a steep grade the increases in sediment production during harvest activities and the resulting effects that this area will not be negatively affected. Unit 360 has a decommissioned road that runs through the area. Seemingly, it does not make sense to harvest the young trees. Also, units, 1260, 1300, 1310, and 1320 all have the potential to adversely impact Bull Trout and their habitat. It is noted in the FEIS that the sediment displacement will negatively affect the spawning habitat of this area.

The current plan intends to construct 150' buffers around sensitive botanical species. Table 51 illustrates the many sites that encompass these wonderful attractions of the forest. However, it begs the question, is 150' buffer enough to protect this recreational aspect? The Willamette National Forest, according to the Regional Forester's 2015 Sensitive Plant list, is home to 97 species of plants.⁴ Of these 97, 55 species were found to be within the analysis area, and of those 55, 15 are fungi for which few or no surveys were conducted.⁵ This presents the question, is 150' buffer adequate to maintain the existence of these sensitive species? The agency also discloses that there is the existence of rare fungi within the analysis area. The specific example given is *Bridgeoporus nobilissimus*, a fungus that forms a perennial fruiting body.⁶ Although the agency recognizes this aspect of the area, the Forest Service discloses that "there may be direct effects and indirect effects to special status fungi because surveys were not conducted for them"⁷, showing that the Forest Service is aware of the possible negative effects but is ignoring the science in their movement forward. Thus again, diminishing/eliminating one of the unique aspects of the area.

One of the most striking aspects of this project area is the scenic quality that it provides. However, the Forest Service claims that the selected alternative will have no adverse effect on the scenic quality because the project follows the forest plan standard and guidelines for scenery

³ DROD at 22.

⁴ FEIS at 175-176.

⁵ FEIS at 174

⁶ *Id.*

⁷ FEIS at 178.

management.⁸ The forest service attempt to bypass this issue by disguising it as a short-term problem. The aggressive logging proposed is in fact a long-term issue that significantly changes the character of the land from a wild forest to one that resembles an industrial site. The Forest Service describes two different sets of guidelines, Visual Management System (VMS) and Scenery Management System (SMS) that were used to determine the impact on the area's scenic quality but fails to describe the process and how it was determined the effects of the project would be short term. This issue is elaborated upon further below.

e. The scale of proposed road construction goes beyond the means necessary.

We object to the scale of the proposed road construction, which includes more restrained alternatives than have been considered. According to the DROD, approximately 10.3 miles of temporary road construction would occur and approximately 130 miles of existing road would be maintained. The alternatives presented do not analyze a situation in which the construction of temporary roads is not involved. Temporary roads are nothing to pass over as they leave permanent marks on the wilderness. Even though the Forest Service is taking steps to minimize off-site movement of sediment by having surface rock applied before the wet season, these measures will still be leaving an everlasting mark on the wilderness.

The Forest Service claims that an alternative that does not provide for temporary roads is not financially feasible but fails to explain why. Also, the Willamette National Forest Road Investment Strategy (RIS) analyzed 41.8 miles of road and determined that 14.09 of those miles were approved for decommissioning by the District Ranger and the inter-disciplinary team.

Our comments support the Forest Service's proposal to decommission 14.09 miles of road but urged the agency to prioritize more unneeded roads for decommissioning. The Forest Service is already at a disadvantage in their attempt to maintain roads already in place. It should be prioritized to decommission as much road as possible to allow the forest to return to its natural state while also allowing the Forest Service to focus its efforts on the heavily traveled roads that require their attention.

Suggested resolution: Revise the FEIS with an alternative that presents maximum road decommission and no temporary roads.

f. The project fails to take a "hard look" at the indirect, direct, and cumulative impacts of the project.

NEPA requires Forest Service to disclose and analyze environmental information and the consequences of federal action. *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 916 (9th Cir. 2012) ("NEPA requires that we determine whether the agency took a 'hard look' at the likely effects of the proposed action."). Specifically, NEPA requires that the Forest Service disclose and analyze the direct, indirect, and cumulative impacts and consequences of its activities. 40 C.F.R. §§ 1502.16(a), 1502.16(b), 1508.25(c), 1508.27(b)(7). The failure to disclose and analyze requisite information indicates that the action agency failed to take a "hard look" at the environmental consequences of its actions. *Klamath-Siskiyou Wildlands Ctr. v. Bur.*

⁸ FEIS at 201.

of *Land Mgmt.*, 387 F.3d 989 (9th Cir. 2004) (holding that requisite analysis must be in the environmental document). The purpose behind this hard look is to “ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. § 1500.1(b).

“Taking a ‘hard look’ includes ‘considering *all* foreseeable direct and indirect impacts.’ *Ctr. for Biological Diversity v. Salazar*, 695 F.3d at 916-17 (internal citation omitted) (emphasis added). Direct effects “is caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Indirect effects “are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable ... include[ing] ... effects on air and water and other natural systems, including ecosystems.” 40 C.F.R. § 1508.8(b). “To take the required ‘hard look’ at the proposed project’s effect, an agency may not rely on incorrect assumptions or data” in its NEPA analysis. *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005).

There are “two critical features of a cumulative effects analysis[:] ... [f]irst, it must not only describe related projects but also enumerate the environmental effects of those projects ... Second, it must consider the interaction of multiple activities and cannot focus exclusively on the environmental impacts of an individual project.” *Ore. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1133 (9th Cir. 2007). “A proper consideration of the cumulative impacts of a project requires ““some quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.”” *Klamath-Sikiyu Wildlands Ctr.*, 387 F.3d at 993-94 (internal citation omitted). Importantly, “generalized conclusory statements that the effects are not significant or will be effectively mitigated” render a cumulative effects analysis inadequate. *Id.* at 996.

For the Flat Country project, the Forest Service failed to take the requisite “hard look” at the direct, indirect, and cumulative effects of the project.

Fish and Aquatic Species

There are several impacts to the Bull Trout and Chinook Salmon critical habitat that we have expressed and wish the Forest Service to look further into. The FEIS says the proposed action may affect and is likely to affect the Bull Trout and Chinook Salmon species and critical habitat.

Unit 360 and 1960 are both adjacent to Chinook Salmon's critical habitat. Both of these are very steep units and pose immediate risks to the Chinook Salmon habitat through excessive thinning. It is difficult for us to believe that the lower riparian unit, which naturally protects the habitat, can be yarded and the result being little or no effect on the critical habitat.

Bull Trout habitat has the likely possibility of being affected in units 1260, 1300, 1310, and 1320 as a direct result of the project. These units are adjacent to water that provides valuable habitat. We are concerned with the lack of information and analysis focused on the cumulative effects felt in these areas. Is thinning these area's absolutely necessary?

Also, the FEIS states that aquatic species such as *Rhyacophila chandleri* and *Rhyacophila leechi* (Caddisflies) may be adversely impacted but the project is not likely to result in a loss of viability in the Flat Country Planning Area, nor cause a trend toward federal listing. This is a very bold statement considering the Forest Service has already admitted that they do not have much/the best available science regarding this aquatic species.

Soil

Ground-based yarding leaves an intense impact on the wilderness and can cause irreversible damage in areas. We are extremely concerned with the impacts the soil will experience. The FEIS states “no adverse effects to soil resources are expected.”⁹ We find this statement to be highly misleading, optimistic, and not supported by the evidence. There 25 units approaching or exceeding the Forest Plan S&G of 20% detrimental soil compaction.¹⁰ However, there is no information other than this given regarding the units and the effects on this area the project will present. The logging of this area and the soil sensitive conditions of the rest area present a high degree of fear on our end for the fungi species located within the project area. The Forest Service attempts to console these concerns with mitigation efforts but there is no given information regarding the effectiveness of these practices. This is another failure by the Forest Service to take a meaningful hard look at this issue.

Hydrology

The EIS has neglected to utilize or take note of the emerging studies demonstrating a low-flow effect in response to regeneration harvest as compared with old and mature forests. The low-flow of streams is a very possible result of this project when it is in fact related to stream temperature. The Forest Service acknowledges the new studies but differentiates the new study from the project area for valid reasons. Ecologically, if plantations are causing low flows, this directly presents a problem to fish and other aquatic species. These implications are a direct result of forest management on water yield and timing in forest landscapes.¹¹

However, the Forest Service, after recognizing that low stream-flow is a realistic issue, blows off the concern stating “[m]ore research is needed to determine the effect of modern treatments on summer streamflow at a variety of scales on a variety of landscape types to inform future management decisions.”¹² Essentially the Forest Service is brushing off this problem on to the next project in an attempt for the issue to be dealt with elsewhere instead of within this current project.

The Forest Service also fails to provide a site-specific analysis of the streamflow effects that will result from the transportation system. There are specific locations of concern that are not addressed in the EIS. Further, given additional logging along the McKenzie by the BLM, this issue needs to be considered in the cumulative effect context.

⁹ FEIS at 83.

¹⁰ FEIS at 82.

¹¹ Perry & Jones report

¹² FEIS comments at 312.

Wilderness and Roadless Areas

It is important to not compromise the rugged wilderness of some areas for the sake of a timber harvest. The Mt. Washington Wilderness, as well as the smaller roadless area along the edges of the flat country, are in jeopardy of losing this wonderful characteristic. These areas of wilderness are increasingly "filling up" thus making the dispersed recreation that much more important. There are 7 units that are adjacent to wilderness; 10, 1130, 1140, 1450, 1480, 1720, and 1750. In addition, there are also 10 other units and miles of fuels reduction treatment along roads that are adjacent to inventories roadless areas abutting the Wilderness. The Forest Service claims these to be temporary impacts which we adamantly disagree with. The destruction of these wilderness areas will accompany the introduction of invasive species and the loss of recreational and scenic characteristics.

Scenic Values

The Flat Country project area runs along one of the most popular outdoor recreation routes in Oregon, Hwy 242. Every year thousands upon thousands of people recreate along this highway, camp, ski, and bike. The scenic values of this area should not be treated lightly, however the Forest takes a woefully brief and insufficient look at this issue in this EIS.

First, it is unclear how the Forest Service analyzed this issue. With previous projects that implications important viewsheds, federal agencies have selected a variety of points along major thoroughfares (like 242) and depicted and analyzed how the proposed logging would influence these views over time. Nothing like that occurs in the EIS, the Forest Service just alludes vaguely using SMS and tiering to the Forest Plan, which explicitly requires site-specific analysis which does not exist here.

It is out understanding that the Forest Service employed landscape architects to conduct this analysis meaningfully. Are there even any folks on staff anymore with this expertise? Upon what are you basing this analysis, other than tiering to the 1993 Forest Plan. The Forest Service states that: "There will be no adverse effect on scenic resources because all harvest related activities will be consistent with forest plan standards and guidelines for scenery management." The Forest Plan does not state that logging consistent with forest plan standards ensures that there will be no adverse effects. The Forest plan requires detailed site-specific analysis to ensure that the agency is meeting the guidelines for scenery management. That analysis does not exist here, this is a failure to take a hard look at this issue. Along 242, this issue needs to be a priority, not something dismissed in a single page.

Further, the only site specific analysis that does exist pertains to a very small specific area, A total of 70 acres of fuel treatment are proposed within management allocation preservation (MA 10E). What are the other scenery allocations across the remaining 4437 acres? What will be the impacts of the various logging prescriptions and burning? This issue deserves fair and thorough treatment when the Forest Service proposes to log areas so important to our communities and people that come from around the nation to visit and cycle and ski off 242. The effort by the Forest Service belies the complete disregard for recreation by the Willamette.

Fire and Fuels

The Forest Service fails to take a hard look at the wildfire issues surrounding this sale. A very similar analysis was recently reviewed by the Ninth Circuit with the Crystal Clear Restoration project and the Court unanimously held that the Forest Service failed to take a hard look at the fire issue. There, the Forest Service generalized the fire and fuel benefits associated with thinning young plantations and simply assumed that this would justify the logging of mature forests as well. The Forest Service makes the same fatal error here, but this FEIS involves even less wildfire analysis and more intensive logging of mature forests.

Here a purpose and need for this project is to reduce fire hazard. The FEIS highlights the significant importance of being able to quickly and efficiently address wildfire threats in this specific area given the massive amounts of recreation in this area:

If a wildfire became established beyond initial attack, the strategic suppression and containment areas will expand fire management responses while exposing firefighters and the public to less risk. Records indicate 3 large fires (Scott Mountain Fire – 2010, Shadow Lake Fire – 2011 and Separation Fire - 2017) started in the Mount Washington Wilderness and burned into the Flat Country project area. Records also indicate 194 fires occurred in the Flat Country project area from 1970-2018.

While the Forest Service fire analysis touches on the roadside fuel reduction and focusses heavily on how it will treat slash post harvest, the Forest Service at best completely ignores and at worst misrepresents the impact of its regeneration harvest logging on fire hazard in this heavily visited region with massive public health and human life impacts.

Through the mature forest logging, the Forest Service is converting mature forests (either in the law to mixed severity fire regime) to young regenerating stands for the 50 years which will have a high fire hazard rating. The BLM admits these impacts in its FEIS (pg. 254). The BLM's 2016 RMP incorporates recent science concerning fire impacts, which can be found in that EIS's references and in the specific fire section. We incorporate those studies here, and can provide any that the Forest Service does not have. There have also been specific studies on this issue, even ones authored by the Forest Service.¹³

Regardless of any slash treatment procedures taken by the Forest Service to mitigate those immediate fire threats from logging, the conversion of mature forests into young plantations with legacy structure would dramatically increase fire hazard for the next 40 to 50 years. The

¹³ <https://www.sciencedaily.com/releases/2018/04/180430131822.htm>; Harold S. J. Zald, Christopher J. Dunn. **Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape.** *Ecological Applications*, 2018; DOI: [10.1002/eap.1710](https://doi.org/10.1002/eap.1710)

<https://phys.org/news/2018-04-high-wildfire-severity-young-plantation.html>

<https://www.sciencedirect.com/science/article/abs/pii/S037811271930307X>; Forest structure and biomass reflects the variable effects of fire and land use 15 and 29 years following fire in the western Cascades, Oregon

following statements are from the Thurston Hills fire analysis (BLM timber sale that converted forests 60-100 years of age to plantations in the same region through regeneration harvest with similar levels of retention):

After the early serial stage, over the next 10-40 years, stands would transition thru the structural stages of stand establishment and young stands. These stages are associated with high stand level fire hazard rating. Units would transition from a slash fuel type into a brush fuel type (approx. 3-5 yrs. after planting). Brush fuel types are more volatile and are susceptible to high rates of fire caused mortality. Fires within homogenous young plantations would exhibit high flame lengths, rates of spread, and fire intensity. Fires started within these stands would be difficult to initial attack and control.

In conclusion, regeneration harvest and the subsequent reforestation would change the structural stage, fuel model, and fuel loadings within harvested areas. Initially, this will change the stand structural stage from mature to early successional and change the associated stand level hazard from low to moderate/high. Over the next 10-40 years stand level fire hazard would remain high as stands transition thru the structural stages of stand establishment and young stands. Stand level fire hazard will begin to trend downward as young stands transition into mature stands.

It is well understood and acknowledged that converting mature forests with higher fire resiliency to young forests will increase fire hazard, which means that wildfires will be harder to attack and control. This was explicitly recognized by the federal district court in Eugene in this latest challenge to the Thurston Hills sale:

The fuels specialist reported that the change from a “mature” to an “early successional” stand structural stage would change the associated stand-level hazard from low to moderate/high. AR 2292. The stands would go from a timber model to a slash fuel model with higher predicted flame length, fire duration, and intensity and decreased ability to control a fire, with the greatest risk of a fire start during the first 5 years following harvest. *Id.*; see also AR 4178–95, 1040–53. Over the next 10 to 40 years, stands would transition through stages associated with high stand-level fire hazard rating and go from a slash fuel to a brush fuel type, which are more volatile and susceptible to high fire-caused mortality rates. AR 2293. These potential fires would have high flame lengths, rates of spread, and intensity and would be difficult to initially attack and control. *Id.* Overall fire hazard would increase for 5 to 20 years following planting, then drop from high to moderate after the next treatment. *Id.*

The district court is going to realize that the Forest Service is intentionally omitting from public disclosure and review the long-term wildfire impacts from converting mature forests into plantations.

The Forest Service claims that its fuel treatments will reduce these risks, but fails to recognize that the real fuel danger will stem from its planted douglas fir trees. The proposed action significantly worsens fire behavior. The project will increase fire severity in harvest units but in summarizing the effects claims the opposite. Fire severity will only increase following heavy thinning, along with gaps and shelterwood logging, create a very high risk, high hazard fuel type.

Even given the slightly higher levels of retention in this project, there are increased fire hazard risks associated with pure thinning of mature forests:

The NEPA document must address the fact that there is very little scientific support for aggressive thinning to reduce fire hazard. In fact, there is mounting scientific evidence that thinning can make the fuel hazard worse instead of better. Thinning makes forests "Hotter, Drier and Windier." Science still has a long way to go to be able to confidently predict the consequences of various combinations of thinning and other treatments. "Detailed site-specific data on anything beyond basic forest structure and fuel properties are rare, limiting our analytical capability to prescribe management actions to achieve desired conditions for altering fuels and fire hazard." Graham, Russell T.; McCaffrey, Sarah; Jain, Theresa B.(tech. eds.) 2004. Science basis for changing forest structure to modify wildfire behavior and severity. Gen. Tech. Rep. RMRS-GTR-120. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 43 p. http://www.fs.fed.us/rm/pubs/rmrs_gtr120.html.

The agency must recognize that canopy thinning has complex effects of fuel and fire hazard. Canopy thinning makes the stand hotter, drier, windier, produces lots of slash, and stimulates the growth of ladder fuels.

In many forests, latent ladder fuels exist in the form of advance regeneration—seedlings and saplings occurring in the understory that are capable of accelerated growth upon disturbance to (or cutting of) the overstory. ... [D]ry mixed conifer forests often include species with high or moderate shade tolerance, and advance regeneration of those species beneath a ponderosa pine dominated canopy is common. The rate of accelerated growth upon treatment is proportional to site quality and thinning intensity.

Ladder fuel growth is governed by the number and sizes of overstory trees. [Overstory trees] can help fuel managers identify cutting levels that meet fuels management goals yet suppress seedling (ladder fuel) growth.

... [R]etaining more and larger trees serves to suppress ladder fuel development.

...

Fuel treatments directly affect the recruitment of ladder fuels by the extent to which bare mineral soil is exposed. Treatments that burn or scarify the forest floor will generally result in the accelerated recruitment of new ladder fuels. Commercial thinning, for example, scarifies the forest floor and provides a mineral soil seedbed that enhances ponderosa pine seedling germination and survival (Oliver and Ryker 1990), increases light to the forest floor that facilitates litter decomposition, and enhances the growth and fecundity of residual trees that can result in greater seed production. ... [M]echanical and prescribed fire treatments that result in greater ground disturbance will typically result in less longevity than treatments that minimize forest floor scarification.



Figure 12.2. Thinning intensity in canopy fuel treatment often involves a trade-off between immediate treatment impact and treatment longevity. In this example from central Oregon, heavy thinning in a ponderosa pine /mixed-conifer stand successfully reduced canopy bulk density. However, it stalled crown recession and promoted the development of ladder fuels, thereby reducing the capacity of the stand to sustain a reduced torching potential over time.

Jain, Theresa B.; Battaglia, Mike A.; Han, Han-Sup; Graham, Russell T.; Keyes, Christopher R.; Fried, Jeremy S.; Sandquist, Jonathan E. 2012. A comprehensive guide to fuel management practices for dry mixed conifer forests in the northwestern United States. USDA Forest Service Gen. Tech. Rep. RMRS-GTR-292. 2012 http://www.firescience.gov/projects/09-2-01-16/project/09-2-01-16_09-2-01-16_rmrs_gtr292web.pdf. A meta-analysis of the effects of partial cutting showed that understory growth was stimulated in all cases. D. Zhou, S. Q. Zhao, S. Liu, and J. Oeding. 2013. A meta-analysis on the impacts of partial cutting on forest structure and carbon storage. *Biogeosciences*, 10, 3691–3703, 2013. <https://www.biogeosciences.net/10/3691/2013/bg-10-3691-2013.pdf>. (“Understory C was stimulated significantly by partial cutting in all of the studies. This stimulation can be mostly attributed to an increase in the availability of light, water, and nutrients to the understory because of tree removal (Aussenac, 2000; Kleintjes et al., 2004; Deal, 2007)”)

Because the fire environment components are interrelated, changes in one component can set off a chain of reactions that will cause changes in others. For example, cutting a timber stand will change the radiation receiving surfaces so that it will be heated more strongly, raising the air temperature in a cleared area. Because relative humidity varies with temperature, the relative humidity will be lowered. The moisture content of the dead

fuel is dependent on both temperature and humidity; hence, the moisture content will also be lowered.

Removal of the trees that restrict the airflow, and the more active convection resulting from the higher temperature, can alter the airflow pattern. Thus, the fire environment – and the fire behavior – in the cutover area will probably be much altered, not only because the fuel characteristics are changed, but because the weather characteristics are also changed.

Clive M. Countryman. 1972. THE FIRE ENVIRONMENT CONCEPT. PACIFIC SOUTHWEST. Forest and Ranger Experiment Station. Revised for inclusion in Intermediate Wildland Fire Behavior, S-290. May 1992.

Page 771 of BLM's 2007 WOPR DEIS admits that "The greater than canopy retained, the less influence wind has on surface fire. This in turn reduces flame length which can lead to reduced mortality. (Fire Behavior Field Reference Guide: NFES 2224)."

UQ Professor and Wildlife Conservation Society Director James Watson said logging regimes have made many forests more fire prone for a host of reasons.

"Logging causes a rise in fuel loads, increases potential drying of wet forests and causes a decrease in forest height," Professor Watson said.

University of Queensland News Release. 2020. Recent Australian wildfires made worse by logging. 6 May 2020. <https://www.uq.edu.au/news/article/2020/05/recent-australian-wildfires-made-worse-logging> citing Lindenmayer, D.B., Kooyman, R.M., Taylor, C. et al. Recent Australian wildfires made worse by logging and associated forest management. Nat Ecol Evol (2020). <https://doi.org/10.1038/s41559-020-1195-5>.

***FIRE WEATHER, a joint U. S. Department of Commerce and U. S. Department of Agriculture document, is a 229 page detailed, scientific explanation, which explains *closed canopy forest* as one which *provides a variety of benefits that decrease the risk of forest fires* and states that* all features of the environment that affect heating and cooling are _significant_. *

The forest canopy of dense timber stands *shades the ground and the forest fuels from elevated temperatures from solar radiation*. The forest canopy *radiates out the heat* accumulated from solar radiation. The forest canopy *provides moisture by transpiration through the leaves* to the air and forest fuels, which decreases the possibility of forest fires. *Transpiration from an area of dense vegetation can contribute up to eight times as much moisture to the atmosphere as can an equal area of bare ground*. The forest canopy *slows down wind* movement and fire progress, due to its large friction area. A forest with a dense understory* is an effective barrier to downslope winds*.

The two most important weather, or weather-related, elements affecting wildland fire behavior are wind and fuel moisture. Wind affects wildfire in many ways. It carries away moisture-laden air and hastens the drying of forest fuels. *Logs under a forest canopy remain more moist (approximately 25% more moist) through the season than those exposed to the sun and wind.* The flow beneath a dense canopy is affected only slightly by thermal turbulence, except where holes let the sun strike bare ground or litter on the forest floor, causing local heating. Convective winds have their origin in local

temperature differences. The nature and strength of convective winds vary with many other factors. Since they are temperature-dependent*, all features of the environment that affect heating and cooling are significant. *Even small openings in a moderate to dense timber stand may become warm air pockets during the day. These openings often act as natural chimneys and may accelerate the rate of burning of surface fires. Temperature of forest fuels, and of the air around and above them, is one of the key factors in determining how wildland fires start and spread.

Logging and logging roads open the forest canopy and increase the temperature of the air, the ground and the forest fuels, which accelerate the rate of burning of surface fires. Logging and logging roads open the forest canopy and lower humidity of forest fuels, which increases the flammability of forest fuels and critically influences the behavior of wildland fires. Logging and logging roads open the forest canopy and may cause rapid and intense fire spread.

Mark J. Schroeder & Charles C. Buck. 1977. FIRE WEATHER... A Guide For Application Of Meteorological Information To Forest Fire Control Operations. U.S. Government Printing Office: 0-244 :923, first printed in May 1970. AGRICULTURE HANDBOOK 360. Reviewed and approved for reprinting August 1977. Stock No. 001-000-0193-0 / Catalog No. A 1.76:360. https://www.frames.gov/documents/behaveplus/publications/Schroeder_and_Buck_1970_PMS-425-1_NFES-1174_Fire_Wx_all.pdf.

In a mixed-conifer, mixed-severity fire regime study area in SW Oregon, Crystal Raymond found that “Fire severity was greater in thinned treatments than untreated. ... The additional fine wood left from the thinning operation (despite whole-tree yarding) most likely caused higher fire intensity and severity in the thinned treatments.”

... [T]he presence of activity fuels increased potential surface fire intensity, so increases in canopy base height did not decrease the potential for crown fire initiation. ... [C]rown fire is not a prerequisite for high fire severity; damage and mortality of overstory trees in the wildfire was extensive despite the absence of crown fire, and the low predicted crown fire potential before and after the fuel treatment. Damage to and mortality of overstory trees were most severe in thinned treatments (80 – 100% mortality), least severe in the thinned and under-burned treatment (5% mortality), and moderate in untreated stands (53-54% mortality) following a wildfire in 2002. Fine fuel loading was the only fuel structure variable significantly correlated with crown scorch of overstory trees. Percentage crown scorch was the best predictor of mortality 2 years post-fire. Efforts to reduce canopy fuels through thinning treatments may be rendered ineffective if not accompanied by adequate reduction in surface fuels.

Crystal L. Raymond. 2004. The Effects of Fuel Treatments on Fire Severity in a Mixed-Evergreen Forest of Southwestern Oregon. MS Thesis. http://depts.washington.edu/nwfire/publication/Raymond_2004.pdf. Raymond also found that “A greater percentage of pre-fire fine wood was consumed in the thinned plots than in the unthinned plots during the Biscuit fire suggesting that fine fuel moisture may have been lower in the thinned plots.” And “the Biscuit Fire was observed to have more moderate fire behavior in stands with a sub-canopy tree layer compared to more open stands, suggesting that the sub-canopy trees did not function as

ladder fuels. ... Higher foliar moisture of broad-leaved species could have dampened fire behavior, inhibiting rather than aiding crown fire initiation.”

Similarly, Hanson and Odion (2006) compared wildfire behavior in seven previously thinned mixed-conifer forests vs. adjacent unthinned forest in the Sierra Nevada and found —

Contrary to our hypothesis, the mechanically thinned areas had significantly higher fire-induced mortality ($p = .016$, $df = 6$) and combined mortality ($p = .008$, $df = 6$) than the adjacent unthinned areas. Thinned areas predominantly burned at high severity, while unthinned areas burned predominantly at low and moderate severity ... Possible explanations for the increased severity in thinned areas include persistence of activity fuels, enhanced growth of combustible brush post-logging, desiccation and heating of surface fuels from increased insolation, and increased mid-flame windspeeds. Given that sampling transects in thinned versus unthinned areas were only 100 m apart in each experimental unit, fire weather should have been the same for the thinned and unthinned areas sampled in each site. Thus, mechanical thinning on these sites appears to have effectively lowered the fire weather threshold necessary for high severity fire occurrence.

Hanson and Odion. 2006. Fire Severity In Mechanically Thinned Versus Unthinned Forests of the Sierra Nevada, California 2006 Fire Congress Proceedings.
ftp://ftp2.fs.fed.us/incoming/r5/VMS/reference_library/Fire%20and%20Fuels%20References/Hanson%20and%20Odion%20%202006%20Fire%20severity%20in%20thinned%20vs%20unthinned%20forests%20.pdf

A study in mixed-conifer forests in California showed that forest reserves were more effective than logging in terms of reducing fire hazard.

[T]he efficacy of seven traditional silvicultural systems and two types of reserves used in the Sierra Nevada mixed conifer forests is evaluated in terms of vegetation structure, fuel bed characteristics, modeled fire behavior, and potential wildfire related mortality. The systems include old-growth reserve, young-growth reserve, thinning from below, individual tree selection, overstory removal, and four types of plantations. These are the most commonly used silvicultural systems and reserves on federal, state, and private lands in the western United States. Each silvicultural system or reserve had three replicates and varied in size from 15 to 25 ha; a systematic design of plots was used to collect tree and fuel information. The majority of the traditional silvicultural systems examined in this work (all plantation treatments, overstory removal, individual tree selection) did not effectively reduce potential fire behavior and effects, especially wildfire induced tree mortality at high and extreme fire weather conditions. Overall, thinning from below, and old-growth and young-growth reserves were more effective at reducing predicted tree mortality.

Scott L. Stephens and Jason J. Moghaddas. 2005. Silvicultural and reserve impacts on potential fire behavior and forest conservation: Twenty-five years of experience from Sierra Nevada mixed conifer forests. *Biological Conservation* 125 (2005) 369–379.

Thinning opens stands to greater solar radiation and wind movement, resulting in warmer temperatures and drier fuels throughout the fire season. [T]his openness can encourage a surface fire to spread, ...

USDA Forest Service; Influence of Forest Structure on Wildfire Behavior and the Severity of Its Effects, November 2003.

<http://www.fs.fed.us/projects/hfi/2003/november/documents/forest-structure-wildfire.pdf>.

Opening up closed forests through selective logging can accelerate the spread of fire through them because a physical principle of combustion is that reducing the bulk density of potential fuel increases the velocity of the combustion reaction. Wind can flow more rapidly through the flaming zone. Thinned stands have more sun exposure in the understory, and a warmer microclimate, which facilitates fire (Countryman 1955).

...

[F]uel reduction activities – particularly mechanized treatments – inevitably function to disturb soils and promote the invasion and establishment of non-native species. Pile burned areas associated with the treatments are also prone to invasion (Korb et al. 2004). Annual grasses can invade treated areas if light levels are high enough, leading to increased likelihood of ignition, and more rapid spread of fire, which can further favor annual grasses (Mack and D'Antonio 1998). This type of feedback loop following the establishment of non-native plants may result in an altered fire regime for an impacted region, requiring extensive (and expensive) remedial action by land managers (Brooks et al. 2004).

Odion, Dennis. 2004. Declaration in NWEA v. Forest Service, citing Countryman, C. M. 1956. Old-growth conversion also converts fire climate. U.S. Forest Service Fire Control Notes 17: 15-19. https://www.fs.fed.us/sites/default/files/legacy_files/fire-management-today/017_04.pdf

Theoretically, fuel treatments have the potential to exacerbate fire behavior. Crown fuel reduction exposes surface fuels to increased solar radiation, which would be expected to lower fuel moisture content and promote production of fine herbaceous fuels. Surface fuels may also be exposed to intensified wind fields, accelerating both desiccation and heat transfer. Treatments that include prescribed burning will increase nutrient availability and further stimulate production of fuels with high surface-area-to-volume ratios. All these factors facilitate the combustion process, increase rates of heat release, and intensify surface fire behavior.

...

Thus, treatments that reduce canopy fuels increase and decrease fire hazard simultaneously. Still unanswered are questions regarding necessary treatment intensities ... more information is clearly needed.

Omi, P.N., and Martinson, E. J. 2002. Effect of fuels treatment on wildfire severity. Final report. Western Forest Fire Research Center. Submitted to the Joint Fire Science Program Governing Board

<http://web.archive.org/web/20060303071717/http://www.warnercnr.colostate.edu/frws/research/westfire/FinalReport.pdf>

“Accelerating the development of multi-storied stands may increase the risk of wildfire.”
Andrews, Perkins, Thrailkill, Poage, Tappeneiner. 2005. Silvicultural Approaches to Develop Northern Spotted Owl Nesting Sites, Central Coast Ranges, Oregon. West. J. Appl. For. 20(1):13-27.

Studies have shown that thinned stands are warmer and windier than unthinned stands. Trevor D. Hindmarch and Mary L. Reid. Effects of Commercial Thinning on Bark Beetle Diversity and Abundance. PROJECT REPORT 1999-13. May 1999.

http://web.archive.org/web/20050502055041/http://sfm-1.biology.ualberta.ca/english/pubs/PDF/PR_1999-13.pdf

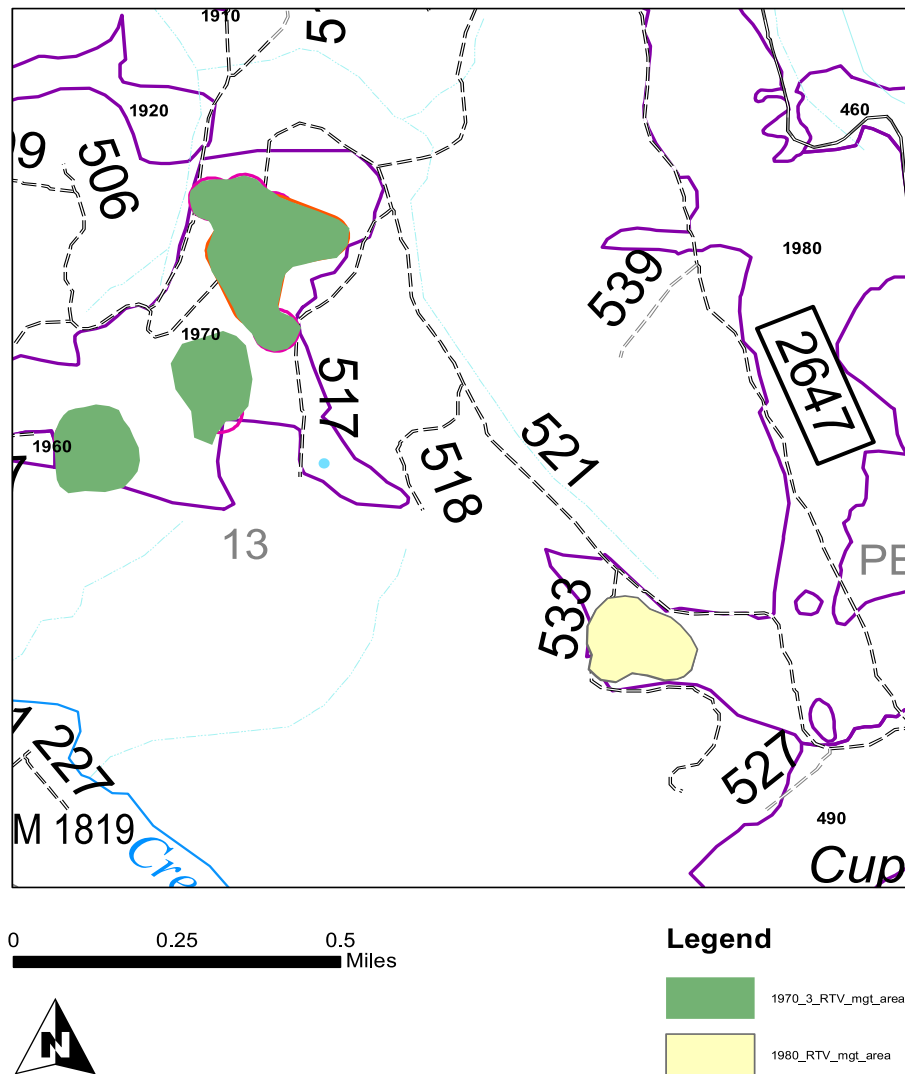
(see figures 2&3, pp 14-15). “ ... [I]n more open canopies where significant surface heating can occur, vertical convection contributes to turbulence, which interacts with air movement above the canopy to produce complex effects on mass and energy exchanges with the atmosphere. Interestingly, some recent research by Zhu, et al. (2003) has revealed a strong correlation between canopy light interception measured using hemispherical photography and windspeed within the canopy relative to that measured above.” Applications of Meteorology to Forestry and Non-forest Trees. Chapter 8, p 11. Compiled by J. Paulo De Melo-Abreu.

http://www.agrometeorology.org/files-folder/repository/gamp_chapt8.pdf citing Zhu, J., Gonda, Y., Matsuzaki, T. & Yamamoto, M. 2003. Modeling relative wind speed by optical stratification porosity within the canopy of a coastal protective forest at different stem densities. Silva Fennica 37(2): 189–204. <http://www.metla.fi/silvafennica/full/sf37/sf372189.pdf>.

Red Tree Vole

Below is a map of the Red Tree Vole Management Areas.

Flat Country Red Tree Vole Management Areas



While we appreciate that the Forest Service did conduct some RTV surveys and is buffering (to an extent) known sites, we believe that the suitable habitat and habitat that should be surveyed under the survey protocol has not been surveyed. This is a violation of the survey protocol and survey and manage.

Recent field checks conducted by our organizations have detected red tree vole sites that are not documented in the FEIS. We believe the Forest Service is thus violating the management recommendations for the vole. We again are providing the Forest Service with this field data. Further, we believe that the buffers that have been created do not adequately protect these sites and are in violation of the management recommendations which require a minimum of a 10-acre buffer around active sites. These buffers are smaller than required under the management recommendations.

Fisher

We object to the destruction of the Fisher habitat. Simply because the formal adoption of the Fisher Conservation Strategy, which provides for a long-term plan for managing fisher habitat, doesn't mean the impacts of destroying the wonderful natural fisher habitat within the project area should go unnoticed. Habitat of Fisher's is claimed to not be a purpose and need of this project but the tradeoff in this scenario is not appropriate. This critter does belong in this area. It is evident through field checks that there is an excellent environment for the reintroduction of this species. The Forest Service again pushes off this concern to other surrounding areas instead of dealing with it in the current situation.

Spotted Owl

The Forest Service claims in its FEIS and response to comments that it is complying with the Northern Spotted Owl's Recovery Plan. One critical component of the NSO's recovery plan is that agencies should be "retaining more occupied spotted owl sites and unoccupied, high value spotted owl habitat on all lands." Certain "unoccupied" NSO sites within the project area are not being protected at all or retained. Instead the Forest Service plans to conduct surveys prior to harvest and if these surveys do not result in detections, these unoccupied sites will be logged. This is in violation of guidance from the Recovery Plan. This needs to be openly and honestly stated in the EIS. The Forest Service's statements around owl impacts are inaccurate.

It also appears from the chart on pages 155-156 of the FEIS that a number of owl sites either below or just above viability thresholds will be further degraded by Forest Service logging. This will result in incidental take of NSO in violation of the terms of the Forest Service BiOp which does not permit any incidental take.

Also, the Recovery Plan and the FEIS states that RA 32 habitat will be protected. But, in the list of PDF's, the FEIS states that despite the fact that RA 32 habitat has been located throughout the project area and in the harvest units, the PDF states: "If an activity will adversely affect the RA-32 habitat, a variance will be submitted for approval to USFWS prior to activities occurring." This means that any time harvest area overlaps RA 32 habitat the Forest Service will seek a variance from the BiOp to log these areas resulting in incidental take and violations of the BiOp and NSO Recovery Plan. However, in other places the FEIS states that "RA32 habitat (see Glossary) has been identified and excluded from treatment." This is illegal and inconsistent.

Further, we believe the RA 32 designation process did not capture all RA 32 habitat in the harvest units. On the ground citizen surveys and data have documented extensive old-growth forest patches that are not documented in the FEIS. We have submitted this data to the Forest Service.

Finally, the current state of the owl is a major cause for concern. The Forest Service should not be downgrading or degrading suitable spotted owl habitat. We are concerned any loss of suitable habitat, especially critical habitat is going to contribute towards further species decline and ultimately species jeopardy. The land allocations under which the Forest Service is proceeding

are based upon outdated modeling that does not take into consideration the incursion of the barred owl or the removal of BLM acreage from plans for owl conservation. We concerned this plan and the land allocations are woefully out of date. The Willamette Forest Plan does specifically states that its management of owl sites and habitat were going to adjust given recovery plan recommendations. Yet, the Forest Service is violating these recovery plan recommendations through this project.

Resolution: Our suggestion would be to modify Alternative 2 to ensure compliance with the recommendations of the spotted owl recovery plan as is otherwise asserted in the FEIS and Draft Decision.

Conclusion

Cascadia Wildlands, (insert others) appreciate your consideration of the information and concerns addressed in this objection, as well as the information included in the attachments. Should you have any questions, please do not hesitate to contact me.

A handwritten signature in black ink, appearing to read 'Nick Cady', with a stylized, flowing script.

Nick, Cady
Cascadia Wildlands

