March 8, 2023

Rachel Smith
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RE: River Complex Salvage Logging Project EA

"Salvage logging of large snags and down boles does not contribute to recovery of late-successional forest habitat; in fact, the only activity more antithetical to the recovery process would be removal of surviving green trees from burned sites. Large snags and logs of decay resistant species, such as Douglas-fir and cedars, are critical as early and late successional wildlife habitat as well as for sustaining key ecological processes associated with nutrient, hydrologic, and energy cycles."
-Dr. Jerry Franklin, 1/20/04.

"When wildfires do occur on federal lands they create an opportunity for development of high-quality early successional ecosystems. Intensive salvage operations and associated site preparation and tree planting are not appropriate if a management goal is to utilize such events to provide for early successional ecosystems. Salvage and related activities can greatly reduce the potential for full development of early successional ecosystems by removing important legacies, eliminating important constituent species, and abridging the duration of early successional development."
-Dr. Jerry Franklin and Dr. Norm Johnson, 2/15/12.

"We agree that in the short term the proposed action could increase fire risk by increasing surface fuels generated by salvage activities to the landscape which currently has a lack of surface fuels and heavy fuel accumulations that could spread fire."
-River Complex Salvage Logging EA page 20.

Dear Forest Service Planners,

Thank you for the opportunity to provide comments regarding the River Complex Fire Salvage Logging Project Environmental Assessment (EA). As the quotations above indicate, and as will be discussed throughout these comments, ***post-fire salvage logging does not contribute to the recovery of forest ecosystems***. Rather, the significant impacts of commercial salvage logging inhibit forest recovery and increase fire hazard. It is incontrovertible that a strong consensus exists among fire ecologists that post-fire salvage logging impedes and delays forest recovery and is inappropriate in the Late Successional Reserve (LSR) land use allocation.

The Forest Service indicates that the purpose of the project is primarily to aid reforestation and reduce future fuel loading. Please note that salvage logging is antithetical to achievement of these two management objectives.

We are extremely concerned that the Forest Service appears committed to conducting post-fire salvage logging within the Late Successional Reserve land use allocation and within Northern spotted owl critical habitat. We sincerely hope the agency will take this opportunity to achieve the project purpose and need by protecting, rather than degrading, this fragile post-fire watershed.

Please note that we generally support the limited and responsible removal of hazard and danger trees adjacent to forest roads that are designated as open in the Motor Vehicle Use Map. We also understand the rationale for the proposed management activities on the Scott/Boulder portion of the project area. It is the clearcutting of post-fire LSR stands in the headwaters of the Salmon River in wildlands adjacent to the Trinity-Alps Wilderness Area that we oppose.

UTILIZE THE WKRP POST-FIRE RECOMMENDATIONS

Unfortunately, the Klamath National Forest has often pursued an insular "all or nothing" approach to post-fire management that maximizes logging in the Late Successional Reserve land use allocation while largely ignoring concerns regarding the impacts of salvage logging on wildlife, soils and watersheds.

We urge the Forest Service to seriously engage with stakeholders and communities who care about the future of this planning area. Please do not simply pursue a controversial salvage logging agenda that emphasizes timber production from LSRs. Please consider and implement the recommendations contained in the Western Klamath Restoration Partnership document that was attached to our scoping comments.

ORLEANS INVENTIORED ROADLESS AREA (IRA)

We are very concerned that the Forest Service is proposing logging activities within the Orleans IRA. If the agency wishes to log the IRA it must analyze the impacts to wildlands and roadless values in an Environmental Impact Statement.

TARGETTING LATE SUCCESSIONAL RESERVES FOR CLEARCUTTING AND ROAD CONSTRUCTION

> *"In particular where our management visions diverge in any post-fire actions, is the USFS overarching concern and emphasis to capture the economic value and rapidly re-establish coniferous forest type dominance, which perpetuates the legacy of unnatural stands due to a long history of fire suppression and silvicultural practices."*
> -Karuk Department of Natural Resources Scoping Comments to the USFS regarding the Seiad Horse clearcutting proposal.

As reflected in the comments to the KNF from the Karuk DNR regarding a similar LSR plantation establishment project, there exists longstanding concern and opposition to the KNF's preference for plantation forestry in reserves following wildfire events.

The proposed River Complex salvage logging will likely inhibit the objectives of the LSR management, decrease ecosystem recovery and resiliency, and increase the controversy surrounding the agency's salvage logging proposal.

Our scoping comments requested that the agency please consider developing and implementing an action alternative in which reserve land use allocations are not subject to unit salvage logging. This the Forest Service refused to do. The decision to clearcut LSRs was preordained and inevitable and this NEPA process is designed to support a decision that has already been made to convert the LSR forests into conifer timber plantations.

Please note that MA5-30 of the KNF Resource Management Plan indicates that in LSRs *"following stand-replacing disturbance, management should focus on retaining snags that are likely to persist until late-successional conditions have developed and the new stand is again producing large snags."* Based on repeated past experience, we believe that KNF timber planners will ignore this Forest Plan standard and guideline and will instead target snags that are in fact likely to persist in the LSR until late-successional conditions develop for extensive unit salvage logging. Indeed, the agency is only targeting snags >14" in diameter for commercial removal.

The cumulative and direct impacts of significant post-fire logging of Late Successional Reserves that provide post-fire foraging in critical habitat for northern spotted owl populations must be analyzed and disclose in an Environmental Impact Statement rather than an EA. Please note that the River Complex salvage logging project is likely to adversely affect Northern spotted owls and may result in their "take."

It appears that KNF timber planners intend to ignore the guidance of their Forest Plan at MA5-30 directing that when conducting post-fire management in LSRs "all standing live trees should be retained…" Instead, the KNF intends to log live trees in proposed LSR salvage *units "with a 70 percent or greater chance of dying within the next three to five years."* Further, the agency is targeting green live old-growth trees for roadside logging.

Please note that your colleagues in the Rogue River-Siskiyou National Forest recently did not propose LSR unit salvage logging in high severity post-fire stands associated with the Abney fire, the same fire that burned the forests that the KNF then logged. A similar dynamic occurred with the Slater Fire burned on both the RRSNF and the KNF- the KNF engaged in extensive post-fire LSR logging and the RRSNF did not. Please further note that on December 17, 2017 your colleagues in the Shasta-Trinity National Forest signed a Record of Decision for the Trinity Post Fire Hazard Reduction and Salvage Project that avoided unit salvage logging entirely, including within the LSR land use allocation.

Line officers in other National Forests in the Klamath Siskiyous are wisely focusing post-fire management actions on roadside hazard removal rather than controversial back-country clearcutting of reserve land use allocations. The development and consideration of such action alternatives is clearly reasonable as evidenced by other post-fire Forest Service plans throughout the region. Action alternatives that retain, rather than clearcut, snag habitat likely to persist until the next late-successional forest establishes itself are being implemented by the surrounding National Forests.

MACHINE PILING, DOZER FIRE LNES AND TRACTOR SOIL RIPPING

The River Complex EA and the project design features that it contains appear to allow heavy equipment on recovering post-fire soils throughout the 20,000-acre project area with very few restrictions or sideboards. Additionally, the location, impacts and alternatives to widespread ground-based heavy equipment use throughout the project area is not quantified, documented or analyzed.

Please note that Forest Service project planners in the Six Rivers National concluded that:

> *"Machine piling/burn piles would increase ground disturbance and soil displacement when the machine turns."*
> *-Little Doe and Low Gulch Timber Sale DEIS p 110.*

In response to a request from the timber industry (American Forest Resources Council) to allow machine piling in logging units federal timber sale planners on the Medford District BLM responded as follows:

> *[Timber Industry] Comment 4: We asked that BLM provide some flexibility in how fuels would be treated by focusing on the desired goals. The BLM has restricted fuels*

treatments to handpiling and burning. Contractors could use light weight equipment to treat fuels without detrimentally compacting soils.

[BLM] Response: The commenter has not provided details on methodology or supporting science that would support the claim that machine piling could be done without detrimentally compacting soils in excess of RMP standards for percent area compacted by current activities.

Resource management plans call for limiting compaction in harvested areas in order to minimize soil productivity losses. Therefore, no additional use of mechanical equipment for fuels reduction was proposed, as ground-based logging would compact up to 12 percent of the harvest units. This is particularly important in the Cottonwood planning area as the majority of soils contain high rock content. It was identified that ripping the soils in this area would bring rocks and cobbles to the surface. The priority was given to minimizing the soil area compacted instead of trying to mitigate the effects. Additionally, the harvest prescription resulting in relatively few trees per acre being cut minimizes the slash, and consequently, also reduces the need for mechanical fuel treatment.

Medford BLM Cottonwood Project EA Appendix A, Response to Comments. Page 3-2

Manual piling is a reasonable alternative to the avoidable impacts associated with machine piling while mechanical piling is often recognized as an outdated practice that has disproportionately harmful impacts on watershed and soil resources.

Please see:

Evelyn Bull et al. Trees and Logs Important to Wildlife in the Interior Columbia River Basin PNW-GTR-391 (1977).

BLM, USGS, Biological Soil Crusts: Ecology and Management (Technical Reference 1730-2 (2001) (Available from BLM Publication Management Distribution Service, Bldg 41, E-16 (BC-650B) Denver, CO 80255

We further encourage the agency to examine the soil compaction monitoring reports from 1985 through 1997 on the Payette National Forest. While the Payette contains different ecotypes and soil types than does the River Complex project area, the monitoring reports clearly show long-lasting and significant soil damage from tractor piling activities. Similar monitoring in the Idaho Panhandle (Jerry Niehoff) and the Kootenai National Forest (Lou Kuennen) demonstrate significant impacts to soils.

We also encourage the agency to review the findings of Geppert, R.R., Lorenz, C.W., and Larson, A.G., 1984. Cumulative Effects of Forest Practices on the Environment: A State of the Knowledge. Wash. For. Practices Board Proj. No. 0130, Dept. of Natural Resources, Olympia, Wash.

Our organizations remain convinced that manual piling is far preferable to tractor piling. Manual piling has none of the negative impacts to soils associated with tractor piling, provides an increased opportunity for local employment and significantly reduces long-term damage to soil health and productivity. Hence manual piling would better achieve the stated forest restoration purpose and need for the project.

Please further note that the proposed machine piling violates National Forest Management Act (NFMA) requirements that a given logging system cannot be chosen because of dollar value alone. There is no other justification for implementing the proposed tractor piling provided in the administrative record other than economic considerations and many reasons why the use such systems is not appropriate.

The River Complex EA also does not analyze or disclose the impacts to soil resources from utilizing bulldozers to establish fire lines when implementing prescribed fire prescriptions, nor does the EA disclose where this activity will occur. Similarly, the EA is silent as to the impacts of ground-based scarification and soil ripping conducted by heavy equipment in post-fire forest ecosystems.

At page 65 of the EA Project Design Feature (PDF) "Watershed P" indicates that during project implementation "[T]urning or pivoting of [ground-based] equipment would minimized." The EA has not disclosed how turning or pivoting would be minimized, in what circumstances it will be allowed, and what the foreseeable impacts of allowing some level of ground-based turning and pivoting on post-fire soils will consist of.

At page 66 of the EA (Watershed V) the KNF indicates that it intends to allow ground-based skid trails to be located across intermittent streams within Riparian Reserves. The EA does not disclose the frequency, locations or impacts of this activity.

EQUIVALENT ROADED AREA (ERA) AND SEDIMENT

Our scoping comments contained numerous references to scientific peer-reviewed studies and articles that argue against the construction of new "temporary" logging roads as a form of post-fire forest recovery. The EA largely failed to acknowledge or respond to those scoping comments and literature references.

Beschta et al. (1995) warned that even temporary road construction should be prohibited on burned landscapes. Existing roads in the watershed are experiencing significant slumping and failure that contributes directly to sediment loading. Commercial landings, log decks, and hauling have similar direct impacts on soil and hydrological values.

The construction of landings also causes erosion at elevated levels and contributes sediment over considerable distances. (Detcheson and Megehan 1996). The increased sedimentation should be considered in light of all past, present and foreseeable future activities in the watershed.

The Flounce Around EA (a 500 acres matrix salvage timber sale in the Medford District Butte Falls Resource Area) acknowledges that:

> "*Many of these roads were previously closed or had little traffic but were opened up during the suppression effort of the Timbered Rock wildfire in the adjacent Elk Creek watershed in the summer of 2002. As a result, many of these high gradient access roads have not been re-blocked and winter traffic has destroyed many of the designated road drainage (i.e. water bars, water dips and culverts). This has caused damage to the road surfaces creating road related erosion (rill, gullies) and subsequent sedimentation of the nearby stream channel."*
> *-Flounce Around EA*

The River Complex salvage logging EA does not disclose if similar impacts occurred during fire suppression activities in the project area. The EA also did not disclose the cumulative and synergistic impact of tractor fire line construction. The EA does not contain a site-specific analysis or disclosure of the location and impacts of the proposed new logging road construction.

Page 13 of the EA indicates that the KNF intends to establish 45 new log landings adjacent to roads as part of the logging transportation system and that each of these landings will be up to one acre in size. Yet the location (and hence the impacts) of new log landings is not disclosed nor analyzed in the EA. Please note that many federal timber sale planners in the Klamath Siskiyou region limit landings to ½ acre is size. The River Complex EA does not analyze or disclose why the KNF expects landings to be as large an acre.

The River Complex EA does not address the best available science regarding the comparative impacts of wildfire and logging roads on sediment production to streams and rivers. Please see: Greg Laurie, U.S. Dep't of Agric., Streambed Sediment and Equivalent Roaded Area on the Klamath National Forest (June 2021).

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd933237.pdf

This recent study by a Klamath National Forest Hydrologist confirms that "[l]ong-term chronic sediment sources from high road densities continue to cause exceedances after the short-term pulse of sediment from the fires routed through the stream network." Further, "[w]atersheds with low road densities and ERA are resilient to the effect of fires and had only a short term [sediment] increase above the reference condition."

Hence it is unfortunately that the River Complex salvage logging project is proposing to: (1) re-open closed and decommissioned temporary roads; (2) construct new logging roads; (3) establish 45 log landings; (4) implement ground-based yarding activities; and (5) conduct machine slash piling. All of these activities will increase the ERA for the project area and result in degraded as opposed to restored watershed conditions. The significant direct and cumulative impacts of these practices must be documented in an EIS.

MIS AND SENSITIVE SPECIES

The River Complex salvage logging EA fails to adequately analyze and disclose the impacts of the proposed logging and road construction on Management Indicator Species (MIS) and Forest Service Sensitive Species of concern. Rather than engage in NEPA's required "hard look" page 35 of the EA offers broad conclusions regarding sensitive species that are not supported by any data or analysis. Indeed page 35 of the EA indicates that the lacking analysis is "ongoing" rather than presented to the public and the decision maker in the NEPA document. Asserting that the agency intends to meet the applicable standards and guidelines of the Klamath and Northwest Forest Plans is not an adequate surrogate for analyzing and disclosing the effects of logging the Late Successional Reserve on wildlife species of concern.

NEW LOG LANDINGS

The River Complex EA did not analyze and disclose the impacts of new log landing establishment on recovering post-fire soils and watersheds in part because the Forest Service does not know where the landings will actually be constructed- hence disclosing the impacts of the landing construction is impossible. NEPA does not permit the agency to authorize undisclosed activities in undisclosed locations resulting in undisclosed impacts. The purpose of the NEPA planning process to disclose the location and impacts of agency actions before the decision is made to authorize those actions. Please note that page 13 of the EA indicates that 45 log landings will be created and that each landing may be up to an acre in size. Most federal forest managers utilize landings that are far smaller than a full acre, especially in the Late Successional Reserve land use allocation. The River Complex EA offers no explanation for the excessive size of the landings in this logging proposal.

PACIFIC CREST TRAIL

Logging along, near and adjacent to the Pacific Crest Trail is a controversial and significant action that necessitates the completion of an EIS for this project.

SCIENTIFIC CONTROVERSY

Project planners appear to acknowledge the presence of scientific controversy regarding the efficacy of post-fire logging in the Late Successional Reserve on forest recovery. Indeed control plots and scientific study are identified as part of the purpose and need for the project. Our organizations submitted dozens of relevant peer-reviewed studies to the KNF during the project scoping period. The Forest Service cannot simply ignore science that runs counter to its logging agenda. The clear presence of significant scientific controversy

regarding the impacts of LSR salvage logging on forest succession and fire management necessitates completion of an EIS rather than an EA for this project.

SNAG RETENTION

The EA failed to analyze and disclose the ability of the timber sale units to provide the required habitat for snag-dependent species. Timber planners made no attempt to disclose snag retention requirements on an acre-by-acre basis rely primarily on snags located outside of harvest units to alter the post-harvest per-acre snag numbers or by double-counting riparian reserves as leave trees for LSR unit salvage logging. Appendix B of the EA indicates that a large number of logging units have exactly 0 (zero) acres of snag retention either in or adjacent to the proposed clearcuts.

The NW Forest Plan at C-42 clearly states:

"As a minimum, snags are to be retained within the harvest unit at levels sufficient to support species of cavity –nesting birds at 40 percent of potential population levels based on published guidelines and models."

C-42 above applies to "harvest unit" scale and the KNF cannot avoid implementation of this substantive snag retention requirement by drawing units larger on maps (and not logging some adjacent Riparian Reserves) and averaging snag retention outside of actual logging areas in order to avoid providing habitat for snag associated MIS species.

ROADSIDE HAZARD TREE LOGGING

The EA fails to analyze and disclose how the yarding (as opposed to felling) of large diameter trees below a road (in "reserve" land use allocations) contributes to human health and safety. We contend that the yarding process may actually *increase* the likelihood of injury. Please note that in reserve land use allocations S&G C-15 of the NFP requires that *"[i]n other areas, such as along roads, leaving material on site should be considered."*

Please note that many of the logging roads in the project area are duplicative "triple stacked" spur roads that serve limited management or recreational purposes. Timber planners must disclose the need to log along such roads when weighed against the recommendations of the Watershed Analysis to reduce road density in this planning area. Indeed, the Forest Service simply refused to develop or consider reasonable action alternatives that retain, rather than remove, large snags and live trees near roads in the Reserve land use allocation.

The logging (and yarding and hauling) of trees from the Orleans Inventoried Roadless Area is a significant action impact an ecologically critical area that must be documented in an EIS.

The EA fails to address or acknowledge the gravitational difference between snag located above the Forest Service road system and those located well below the road. In contrast, the Antelope-Tennant salvage logging EA on the Goosenest Ranger District proposes shorter hazard logging distances on the downhill side of logging roads.

SPOTTED OWLS AND THEIR HABITAT

The River Complex salvage logging EA is the first post-fire LSR logging project that we have ever read that completely ignores the impacts of snag removal on Northern spotted owls (NSO), their prey species and their habitat. The EA provides no data or analysis or information whatsoever- indeed the EA does not even assert any conclusions regarding impacts to NSO and their habitat.

Is the project located in NSO critical habitat? Will logging occur in historic owl sites? Will logging occur in occupied owl sites? Will roadside logging occur in NSO nest and core areas? Does the project involve the "take" of NSO? Is the logging "likely to adversely affect" NSO, their habitat or their critical habitat. Will the Forest Service be removing "post-fire foraging" (PFF) habitat? How will the logging impact spotted owl/barred owl competition? No information regarding any of these topics is presented to the public or the decision maker in the KNF's NEPA document.

PACIFIC FISHER

The River Complex EA is also silent as to impacts from logging, road construction and landing establishment on Pacific Fisher populations and movement. This can be contrasted with the NEPA analysis that supported the "Westside" salvage project on the Klamath National Forest in which the agency acknowledged that the conversion of snag forests into timber plantations in the LSR land use allocation would negative impact Fisher populations and their movement across the landscape. In contrast, the River Complex EA contains no analysis regarding impacts to this species.

SALMON RIVER KEY WATERSHED

Much of the proposed road construction, landing establishment and salvage logging is located within the Salmon River Key Watershed that was identified in the NW Forest Plan as "key" to at-risk salmon populations. The findings and recommendations in the KNF Salmon River Watershed Analysis did not influence the purpose and need or development of the LSR salvage logging proposal. Indeed, many of the Forest Service's own recommendations in the Watershed Analysis run directly counter to the clearcutting and road construction agenda contained in the River Complex EA. As currently conceived River Complex would likely violate the Aquatic Conservation Plan while allowing deleterious impacts to water quality and fisheries.

CONCLUSION

Please note that there is almost universal agreement that salvage logging does not leave watersheds and forests in a healthier, more resilient state, and that the timber volume gained via salvage is neither predictable nor sustainable.

We urge the Forest Service to familiarize itself with the growing body of literature indicating that the post-fire ecosystems have more to offer than simply an opportunity for salvage logging and plantation forestry.

Thank you for considering our concerns and input in this planning process.

Regards,

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